

Three Species of Histerid Beetles (Coleoptera: Histeridae) New to Korea

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풍뎅이붙이과 (딱정벌레목) 한국미기록종 3종에 대한 보고

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ABSTRACT: Until now, 53 species belonging to 22 genera of 6 subfamily of family Histeridae have been recorded in Korea. As a result of this study, we newly add two subfamily, three genera, and three species, *Niponius osorioceps* Lewis, 1885, *Plegaderus (Plegaderus) marseuli* Reitter, 1877, and *Trypeticus fagi* (Lewis, 1884), to Korea along with a brief description and illustration of the diagnostic characters.

Key words: Histeridae, *Niponius osorioceps*, *Plegaderus marseuli*, *Trypeticus fagi*, Korea

초 록: 한국의 풍뎅이붙이과(Histeridae)는 6아과 22속 53종이 현재까지 보고되어 있다. 본 연구 결과, *Niponius osorioceps* Lewis, 1885 두빨풍뎅이붙이(신칭), *Plegaderus (Plegaderus) marseuli* Reitter, 1877 두가슴풍뎅이붙이(신칭), *Trypeticus fagi* (Lewis, 1884) 가슴각진풍뎅이붙이(신칭)의 3아과 (2미기록아과) 3미기록속의 3종을 한국미기록종으로 발견하였으며, 이들에 대한 간략한 기재와 중요한 형질 및 전자현미경사진을 함께 제시하고자 한다.

검색어: 풍뎅이붙이과, 두빨풍뎅이붙이, 두가슴풍뎅이붙이, 가슴각진풍뎅이붙이, 한국

Histeridae is a family of beetles commonly known as clown beetles or hister beetles and approximately 3,900 species in 11 subfamilies have been described to date. In Korea, up to days, 53 species of 22 genera of 6 subfamilies of them have been recorded (Kim & Lim, 1997; Ôhara & Paik, 1998). They can be easily identified by their shortened elytra which leave one or two of the seven tergites exposed, and their elbowed antennae with clubbed ends. Most members of hister beetles are predators and found in most kinds of decaying organic matter, such as droppings, decomposing bodies of animals, compost piles and other decaying plant materials. Some species are also used to

control livestock pests that infest dung or to control house flies (Ôhara, 1994).

Recently, we have collected several histerid species with Lindgren funnel trap for the ecological research on the bark beetles. As a result, we added three species, *Niponius osorioceps* Lewis, 1885, *Plegaderus (Plegaderus) marseuli* Reitter, 1877 and *Trypeticus fagi* (Lewis, 1884) new to Korea. In this paper, diagnosis and photographs of characters for each species are presented.

Taxonomic accounts

Family Histeridae Gyllenhal, 1808

Key to the Korean subfamilies of Histeridae (Number of species in Korea)

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Received November 15 2011; Revised July 15 2012

Accepted July 31 2012

- 1. Prosternum without antennal grooves or cavities. Ventral side of head with large foveae for reception of antennae. Mandibles vertically connected with head. Subfamily Niponiinae (1 species)
- Prosternum with antennal grooves or cavities. Ventral side of head without foveae(Except in Tribes Hololeptini and Histerini, which have shallow and narrow longitudinal grooves). Mandibles porrect, horizontally connected with head. 2
- 2. Antennal grooves or cavities on prosternum transverse, occurring on anterior side, and usually closed beneath by the prosternal alae. 3
- Antennal grooves on prosternum longitudinal, usually sinuated next to prosternal keel, and open beneath. 5
- 3. Labrum with a few setiferous punctures. Subfamily Onthophilinae (2 species)
- Labrum without setae. 4
- 4. Antennal scape expanded and strongly angulate. Subfamily Hetaeriinae (1 species)
- Antennal scape normal, neither expanded nor strongly angulate. Subfamily Histerinae (33 species)
- 5. Prosternal lobe present. Subfamily Dendrophilinae (4 species)
- Prosternal lobe absent. 6
- 6. Body cylindrical. Subfamily Trypeticinae (1 species)
- Body oval or oblong-oval 7
- 7. Dorsal elytral striae absent though sometimes represented by rather vague impressions. Subfamily Abraeinae (2 species)
- Dorsal elytral striae present. Subfamily Sapriniinae (12 species)

Subfamily Niponiinae Fowler, 1912 뽕뽕뽕이아과 (신칭, newly added)

Genus *Niponius* Lewis, 1885 (newly added)

Niponius Lewis, 1885. [Type species: *Niponius impressicollis* Lewis, 1885]

***Niponius osorioceps* Lewis, 1885 두뽕뽕뽕이불이 (신칭)**

Niponius osorioceps Lewis, 1885. Trans. Ent. Soc. London:

333. [Type locality: Japan]

Niponius itoi Chûjô, 1955. Akitu, 4: 57; Ôhara, 1999.

Diagnostic characters. Body length 3.5-4.7 mm. Body cylindrical, moderately stout. Cuticle shining, black; tarsi, antennae and projections of epistoma reddish brown. Projections of epistoma moderately stout and long, their apices strongly carinate and dorsal surface with 2 transverse carinae. Antennal grooves deep under eyes. Gena under compound eye straightly edged. Mandible big and stout; underside of mandible concave and hide maxilla and maxillary palpi. Propygidium with 2 large, transversely oblong and shallow foveae which become shallower posteriorly. Pygidium with large, longitudinal oblong and deep foveae behind each basal corner.

Distribution. Korea, Japan, Taiwan, Ussuriyskij Kray.

Material examined. GW, 2 exs., Janghak-ri, Dong-myeon, Chuncheon-si, 17.V.-14.VI.2011 (Lindgren funnel trap); GW, 2 exs., Joyang-ri, Dongsan-myeon, Chuncheon-si, 17.V.-14.VI.2011 (Lindgren funnel trap), GW, 30 exs., Jeombong-san, Girin-myeon, Inje-gun, 2.VI-22.VI.2011 (Lindgren funnel trap).

Subfamily Abraeinae Marseul, 1857

Tribe Plegaderini Portevin, 1929 (newly added)

Genus *Plegaderus* Erichson, 1834

Plegaderus Erichson, 1834. [type species: *Hister caesus* Herbst, 1792]

***Plegaderus (Plegaderus) marseuli* Reitter, 1877 두 가슴뽕뽕이불이 (신칭)**

Plegaderus (Plegaderus) marseuli Reitter, 1877. Berlin Ent. Z., 21: 371. [Type locality: Japan]

Diagnostic characters. Body length 1.40-1.52mm. Body oblong-oval. Cuticles shining and black; tibiae, tarsi and antennae reddish brown. Head with a convex area behind each antennal cavity. Antennae inserted on the frons between compound eyes. Pronotum strongly convex; anterior margin broadly emarginate, with a complete marginal stria, Surface of pronotum divided into 2, anterior and posterior, areas by a transverse line at apical 1/3. Epipleura not concave. Elytra without striae, but oblique humeral stria deeply impressed. Propygidium and pygidium punctuate regularly. Foretibia slightly broadened anteriorly but

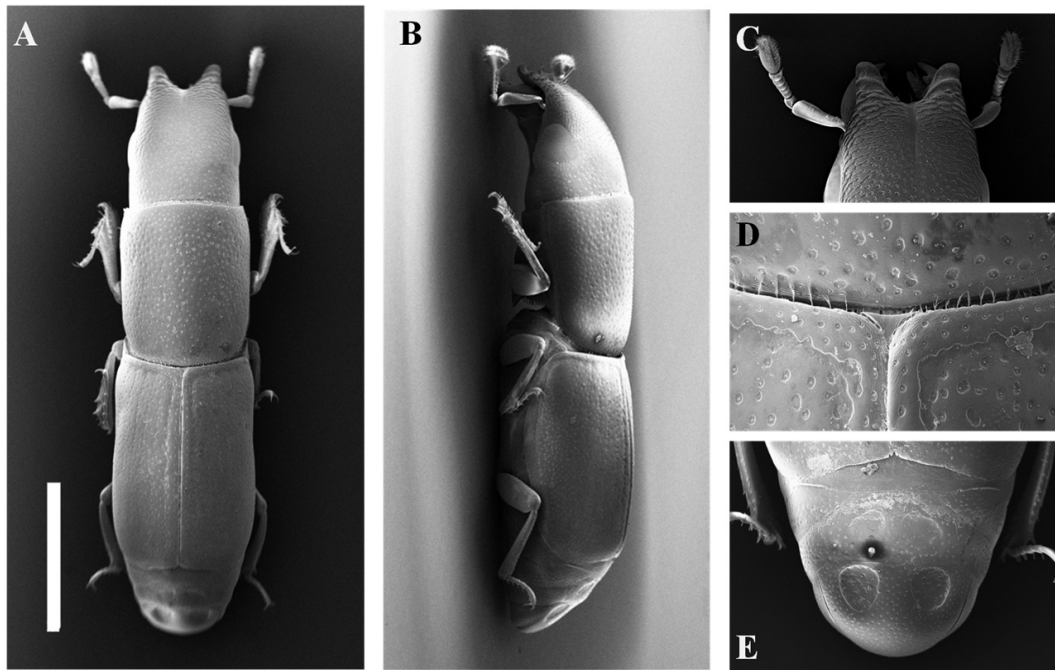


Fig. A-E. Habitus of *Niponius osorioceps* Lewis; Scale bar = 1 mm. A: Dorsal aspect, B: Lateral aspect, C: Head, D: Scutellum, E: 6-7th Tergites.



Fig. F-J. Habitus of *Plegaderus (Plegaderus) marseuli* Reitter; Scale bar = 1 mm. F: Dorsal aspect, G: Lateral aspect, H: Left Antenna, I: Antero-lateral part of pronotum, J: Scutellum.

progressively broader on apical 1/2.

Distribution. Korea, Japan.

Material examined. GW, 4 exs., Janghak-ri, Dong-myeon, Chuncheon-si, 17.V.-14.VI.2011 (Lindgren funnel trap).

Remarks. This tribe is easily distinguished from tribe Abraeini with a transverse line on middle or near middle of pronotum.

Subfamily Trypeticinae Bickhardt, 1913 각진똥덩이
붙ैया과 (신칭, newly added)

Genus *Trypeticus* Marseul, 1864 (newly added)
Trypeticus Marseul, 1864. [Type species: *Trypeticus gilolous*
Marseul, 1864]

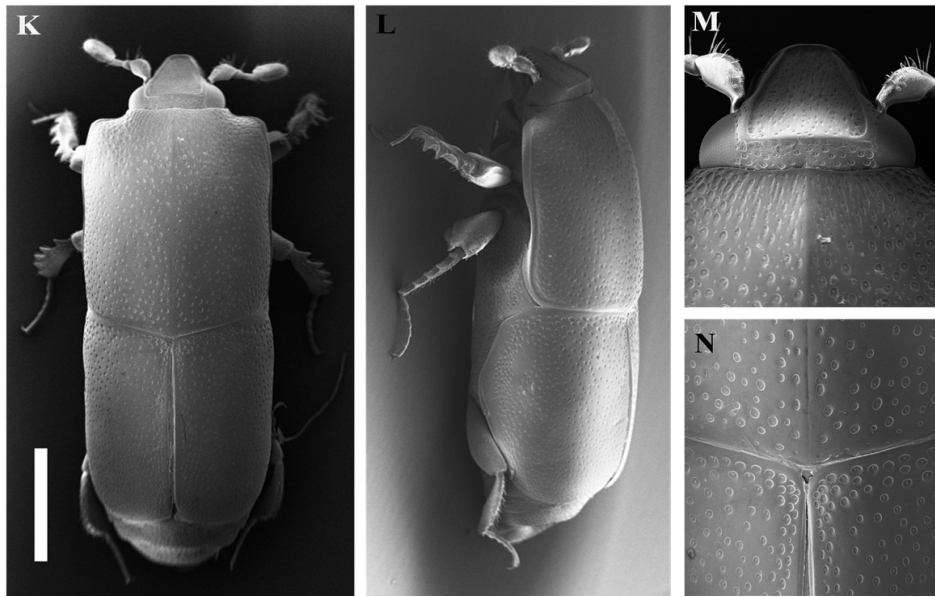


Fig. K-N. Habitus of *Trypeticus fagi* (Lewis, 1884) (Female; Scale bar = 1 mm). K: Dorsal aspect, L: Lateral aspect, M: Head, N: Scutellum.

Trypeticus fagi (Lewis, 1884) 가슴각진풍뎅이붙이(신칭)
Tryponaeus fagi Lewis, 1884, Ann. Mag. Nat. Hist., (5) 13: 138.
 [Type locality: Japan]

Trypeticicus fagi : Lewis, 1905. A systematic catalogue of
 Histeridae, London: 7.

Diagnostic characters. Female: Body length 3.11-4.30mm. Body cylindrical, moderately stout. Cuticle shining, black; tibiae, tarsi, and antennae dark reddish brown. Head with clear frontal marginal stria which is strongly carinate; pronotum distinctly with short costa longitudinally in the middle at basal ¼. Pronotum strongly punctate wholly; humeral part strongly angulate; punctuation of anterior part small but long. Punctuation of pygidium much denser than that of the male. Front and mid tibia with 5-6 big teeth on outer margin. Male: Body length 3.11-3.50 mm. Head without frontal stria; surface slightly depressed on median area. Anterior margin of pronotum shallowly emarginate on median 2/3; surface of disk densely and coarsely punctate except on longitudinal mid line. Epipleura broad, not concave. Marginal epipleura and elytral stria absent. Distribution. Korea, Japan.

Material examined. GW, 1 ex., Janghak-ri, Dong-myeon, Chuncheon-si, 17.V.-14.VI.2011 (Lindgren funnel trap); GW, 1 ex., Joyang-ri, Dongsan-myeon, Chuncheon-si, 17.V.-14.VI.2011 (Lindgren funnel trap).

Acknowledgments

This work was supported partly by the National Project of the Biological Collections in the Korean Peninsula in 2011 of the Korea National Arboretum.

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