

Three New Recorded Species of the Genus *Stenus* Latreille (Coleoptera, Staphylinidae, Steninae) in Korea

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한국산 딱부리반날개속(딱정벌레목, 반날개과, 딱부리반날개아과)의 미기록 3종 보고

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ABSTRACT: Three species of the genus *Stenus* Latreille are reported for the first time in Korea [*Stenus (Stenus) latissimus latissimus* Bernhauer, *S. (S.) hammondi* Puthz and *S. (Hypostenus) dissimilis* Sharp]. The adult photographs and the illustrations of aedeagus and 9th sternite of male are provided.

Key words: Coleoptera, Staphylinidae, Steninae, *Stenus*, New records, Korea

초 록: 한국산 딱부리반날개속(*Stenus* Latreille)의 미기록 3종 [*Stenus (Stenus) latissimus latissimus* Bernhauer, *S. (S.) hammondi* Puthz 및 *S. (Hypostenus) dissimilis* Sharp]을 보고한다. 성충 사진, 수컷의 생식기 및 9번째 복판 그림을 제시한다.

검색어: 딱정벌레목, 반날개과, 딱부리반날개아과, 딱부리반날개속, 미기록, 한국

Introduction

The subfamily Steninae is composed of two genera, *Dianous* Leach and *Stenus* Latreille (Newton et al., 2001). The genus *Stenus* is one of the largest of the family Staphylinidae (Tang et al., 2005) and distribution worldwide including more than 2,195 species (Zhao and Zhou, 2004; Puthz, 2005). Most species occur in habitats with high humidity (Rougemont, 1983) and they are characterized by the cylindrical body, elongate maxillary palpi, protruding elongated labium and prementum shape, in addition to extraordinarily convex compound eyes (Naomi, 1990; Zhao and Zhou, 2006).

Haku (1936) described firstly two species in Korea, *Stenus (Hypostenus) cicindela* [=*S. (H.) cicindeloides*] and *S. (S.) tenuipes*. After that, 32 species of subfamily Steninae were reported in Korea until now (Yuh et al., 1985; Puthz, 1991).

In this paper, we report three species, *Stenus (Stenus) latissimus latissimus* Bernhauer, *S. (S.) hammondi* Puthz and *S. (Hypostenus) dissimilis* Sharp, new to Korea. The aedeagus and the 9th sternites of male are illustrated for comparison. The specimens studied are deposited in the Hannam University Natural History Museum (HUNHM), Daejeon, Korea.

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Results

Stenus (Hypostenus) dissimilis Sharp 작은황다리딱부리반날개(신칭) (Figs 1A, 2A, 2D)

Stenus (Hypostenus) dissimilis Sharp, 1874: 87; Puthz, 1968: 44.

Description: Body length: 2.5~3.2 mm, body black, moderately glossy; antenna with the 1st antennomere dark brown, 2nd to 8th antennomeres dark yellow, 9th to 11th antennomeres dark red; maxillary palpi yellow with the apical palpomere infuscated; legs yellow, the apex of the femora a little darker; labrum black.

Head a little narrower than elytra (0.99:1), clypeofrontal area sparsely pubescent, interocular shallowly concave; basiantennal tubercles small; surface punctures dense, round, distinct and somewhat irregular; interstices between punctures densely reticulated; antenna reaching posterior 3/5 of pronotum, 8th to 10th antennomeres ovoidal.

Pronotum shorter than elytra (0.87:1), a little longer than wide, broadest at anterior 2/5, moderately constricted at base, lateral margins slightly rounded; punctures very dense.

Elytra broader than length (1.04:1), moderately constricted at base, gradually broaden posteriorly, hind margin with a arcuate emargination; surface almost even; punctures round, very dense and large; pubescence short and sparse.

Abdomen broadest at base, weakly narrowed posteriorly; without paratergites except for the trace on basal of 3rd tergite, 4th to 6th tergites completely atrophied; punctures dense, round and smaller toward posterior margin, interstices between punctures narrow.

Aedeagus with median lobe strongly bulbous at basal 2/3 and then gradually narrowed toward the pointed apex; parameres slender, extending a little before apex of median lobe, with sparse setae at apico-internal area (Fig. 2A).

Specimens examined. 4♂, 8♀, Chungnam province, Hakampo sand dune, Banggal-ri, Wonbuk-myeon, Taean-gun, 21. VII. 2011, H.K. Min.

Distribution. Korea and Japan.

Remarks. This species can be distinguished from all Korean species of the subgenus *Hypostenus* by small size (2.5~3.2 mm)

and antenna with the 1st antennomere dark brown, 2nd to 8th antennomeres dark yellow, 9th to 11th antennomeres dark red.

Stenus (Stenus) hammondi Puthz 작은날개딱부리반날개(신칭) (Figs 1B, 2B, 2E)

Stenus (Nestus) hammondi Puthz, 1970: 31.

Stenus (Stenus) hammondi: Smetana, 2004: 557.

Description: Body length 2.8~3.6 mm, body black, dull; antenna pitchy, maxillary palpi with the 1st and anterior half of 2nd palpomeres yellow, posterior half of second and 3rd palpomeres brown; legs reddish brown; labrum black.

Head narrower than elytra (0.95:1), clypeofrontal area sparsely pubescent, interocular area shallowly concave with a pair of depressions, median longitudinal area between the depressions gently convex; basiantennal tubercles small; surface punctures dense, round, distinct and somewhat irregular; antenna reaching posterior 2/3 of pronotum, 8th to 10th antennomeres ovoidal.

Pronotum a little longer than elytra (1.01 :1), a little longer than wide, broadest at anterior 2/5, moderately constricted at base, lateral margins rounded, surface slightly uneven; punctures very dense and coarse.

Elytra broader than length (1.25:1), constricted at base, gradually broadened posteriorly, hind margin with a weak arcuate emargination; surface almost even; punctures subrugose and very dense.

Abdomen broadest at base, narrowed posteriorly, paratergites apparently raised in 3rd to 7th tergites; each of 3rd to 6th tergites with a basimedial keel and a pair of midlateral ones, the keels becoming smaller from 3rd to 6th tergites; punctures dense, round and becoming smaller toward posterior margin, interstices between punctures narrow.

Aedeagus with median lobe a robust, the expulsion-clasp distinctly acute towards the apex; parameres not reaching apex of median lobe, with sparse setae at apico-internal area (Fig 2B).

Specimens examined. 1♂, Gangwon province, Mt. Odaesan, Pyeongchang-gun, 20. IV. 2002, C.W. Sin; 1♂, 1♀, Gangwon province, Mt. Jeombongsan, Jindong-ri, Girin-myeon, Injae-gun, 18. IV. 2007, S.M. Yoon; 1♀, Gangwon province, Mt. Odaesan,

Sangwonsa Temple, Dongsan-ri, Jinbu-myeon, Pyeongchang-gun, 19. IV. 2007, H.K. Min; 2♂, 3♀, Gangwon province, Mt. Odaesan, Jinbu-myeon, Pyeongchang-gun, 22. V. 2012, D.H. Lee, Y.G. Ban, S.G. Lee.

Distribution. Korea, China, Japan and Russia (Far East).

Remarks. This species is similar to *S. lewisius* and *S. distans* by each of 3rd to 6th tergites with a basimedial keel and a pair of midlateral keels but can be distinguished from *S. lewisius* by elytra broader than length, and also differs from *S. distans* by reddish brown legs.

Stenus (Stenus) latissimus latissimus Bernhauer
큰딱지딱부리반날개(신칭) (Figs. 1C, 2C, 2F)

Stenus (Nestus) latissimus Bernhauer, 1938: 29.

Stenus (Nestus) gibbicollis canus Puthz, 1966: 303; Puthz, 1967: 78.

Stenus (Stenus) latissimus latissimus: Smetana, 2004: 558.

Description: Body length 3.0~4.3 mm, body black and dull;

antenna dark brown, with apical antennomere reddish brown; maxillary palpi with the 1st palpomere yellow, 2nd and 3rd palpomeres dark brown; legs and labrum black.

Head narrower than elytra (0.80:1), clypeofrontal area sparsely pubescent, interocular area shallowly concave with a pair of depressions, median longitudinal area between the depressions gently convex, basiantennal tubercles small, surface punctures dense, round, and distinct; antenna reaching posterior 2/3 of pronotum, 9th and 10th antennomeres ovoidal.

Pronotum shorter than elytra (0.62:1), a little broader than length, broadest at anterior 2/5, moderately constricted at base, lateral margins rounded, surface slightly even; punctures dense.

Elytra a little broader than length (1.01:1), constricted at base, gradually broaden posteriorly, hind margin with a arcuate emargination, surface almost even; punctures round, very dense and large.

Abdomen broadest at base, narrowed posteriorly, paratergites apparently raised in 3rd to 7th tergites; punctures dense, round and becoming smaller toward posterior margin, interstices between punctures narrow.

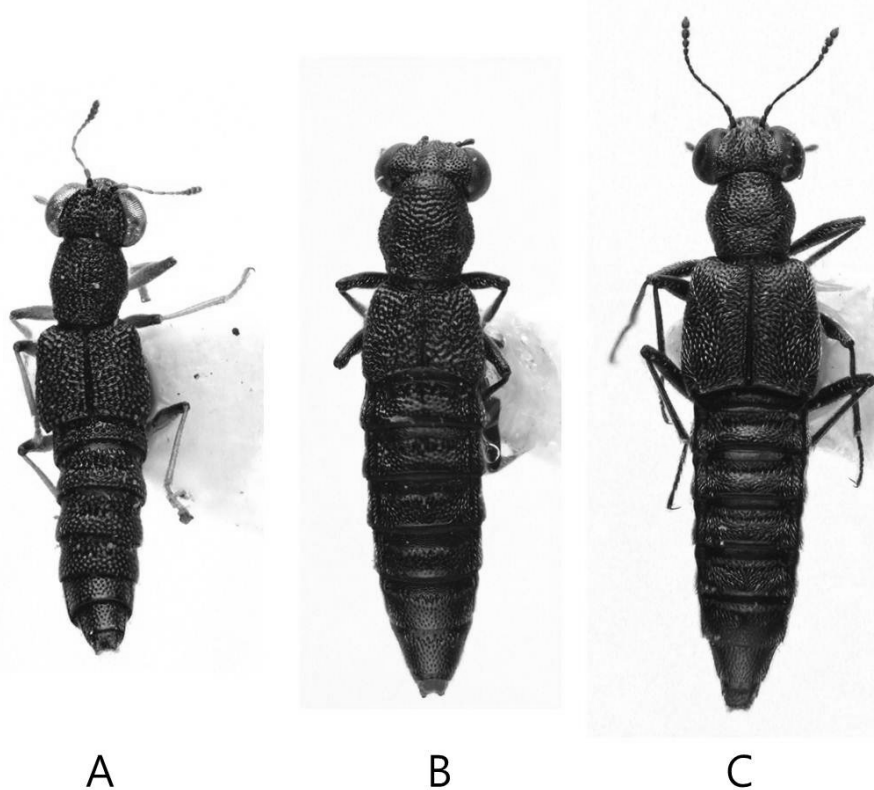


Fig. 1. Habitus. A, *S. (H.) dissimilis* (2.9 mm); B, *S. (S.) hammondi* (3.6 mm); C, *S. (S.) latissimus latissimus* (4.3 mm).

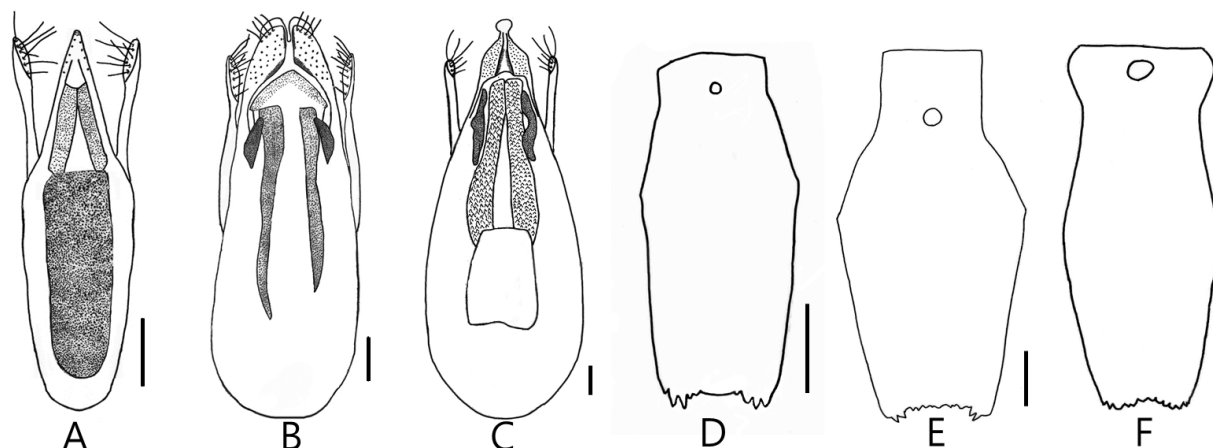


Fig. 2. Aedeagus (A~C) and 9th sternite (D~F) of male in ventral view. A and D, *S. (H.) dissimilis*; B and E, *S. (S.) hammondi*; C and F, *S. (S.) latissimus latissimus*. Scale bars = 0.1 mm.

Aedeagus with median lobe elongate, broadest at about basal 1/3, then gradually narrowed toward apex, the apex round like nipple, parameres slender, not reaching apex of median lobe, with sparse setae at apico-internal area (Fig. 2C).

Specimens examined. 1♂, 1♀, Gangwon province, Mt. Seoraksan, Baekdam valley, Buk-myeon, 10. VI. 2011, J.H. Song, S.G. Lee.

Distribution. Korea, China, Mongolia and Russia (East Siberia, Far East).

Remark. There are two subspecies (*S. latissimus latissimus* and *S. latissimus hatchi*) within *Stenus latissimus* (Herman, 2001). The latter subspecies is distributed in USA and Canada (Herman, 2001). *S. latissimus latissimus* can be distinguished from Korean species of subgenus *Stenus* by the apex of median lobe with nipple shape.

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