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Four Species of Genus *Philonthus* Stephens from Korea (Insecta, Coleoptera, Staphylinidae)

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Abstract - Four Korean species of the genus *Philonthus* Stephens (*P. aeneipennis* Boheman, *P. daimio* Sharp, *P. nakanei* Sawada, and *P. numata* Dvořák) are identified newly and are recorded for the first time in Korea. The diagnosis and the aedeagus illustrations of each species are presented herein. [Identification, Coleoptera, Staphylinidae, Staphylininae, *Philonthus*, Korea].

INTRODUCTION

The genus *Philonthus* Stephens belongs to the tribe Staphylinini of subfamily Staphylininae. Members of this genus are close to 1000 species occuring in all zoogeographical regions and recognized by the combinations of the following characterictics: last palpomere of maxillary palpus longer than preceding segment; dorsal surface of all tarsomere glabrous with scattered and long marginal setae; superior line of pronotal hypomeron not turning downwards until close to front angle (Smetana 1995).

Twenty-two species of Korean *Philonthus* are recognized currently by Kim *et al.* (1994). I had the opportunity to review Korean *Philonthus* recently, and four species of them are the first record in Korea (*P. aeneipennis* Boheman, *P. daimio* Sharp, *P. nakanei* Sawada, and *P. numata* Dvořák). I report four species herein, providing each of the diagnosis and the illustrations of aedeagus.

RESULTS

Family Staphylinidae Latreille, 1802 반날개과
Subfamily Staphylininae Latreille, 1802 반날개아과
Tribe Staphylinini Latreille, 1802 반날개족
Subtribe Philonthina Kirby, 1837 좀반날개아족
Genus *Philonthus* Stephens, 1829 좀반날개속

1. *Philonthus aeneipennis* Boheman, 1858

길쭉등좀반날개 (신칭)

Philonthus aeneipennis Boheman, 1858: 30; Bernhauer et Schubert, 1914: Cameron, 1920: 377; Cameron, 1932: 113; Li, 1992: 54; Li and Chen, 1993: 36.

Philonthus lewisius Sharp, 1874: 42.

Philonthus (*Gefyrobius*) *aeneipennis*: Scheerpeltz, 1933: 1330.

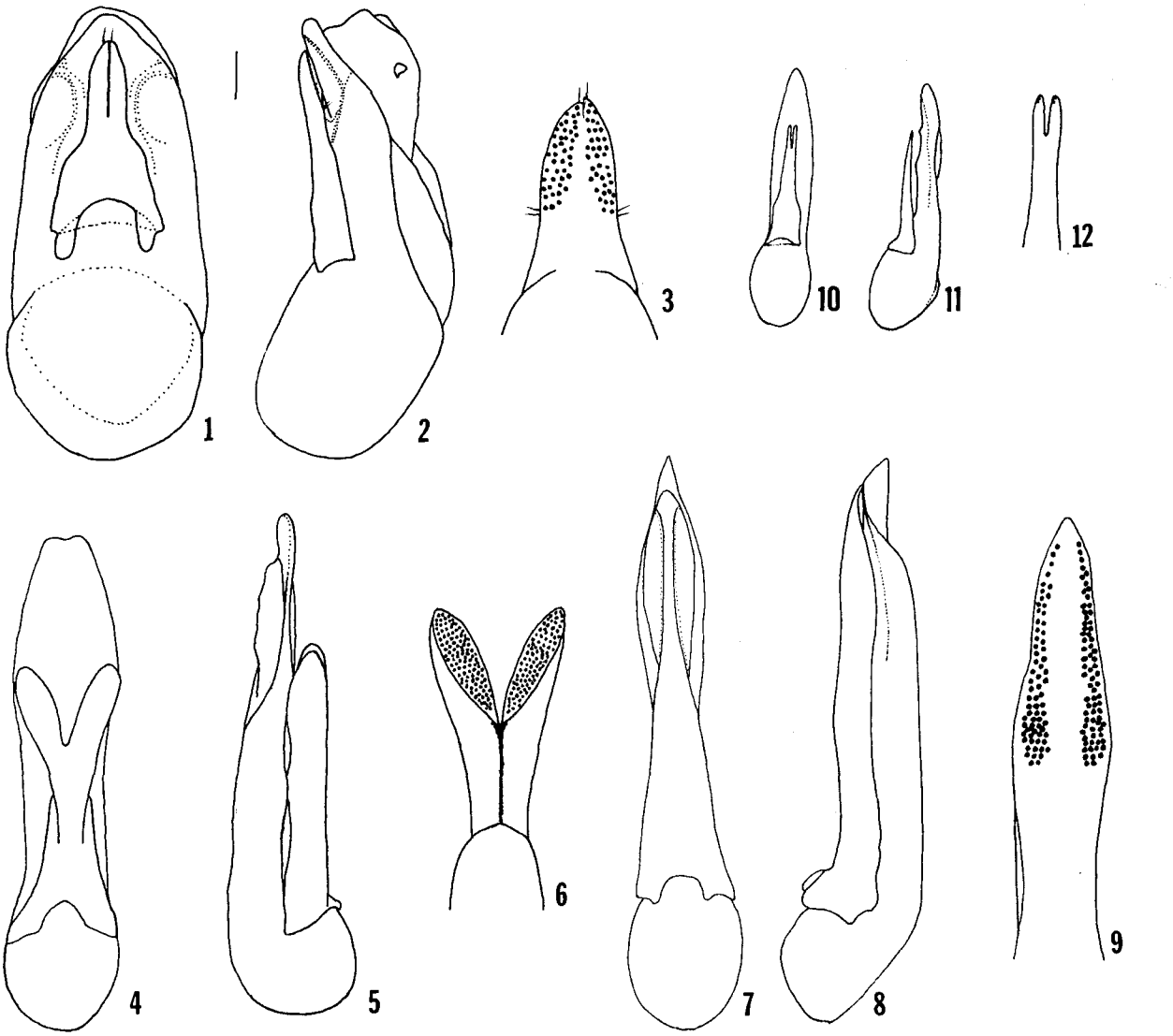
Philonthus (*Bisnius*) *aeneipennis*: Adachi, 1957: 184; Nakane, 1963: 91.

Philonthus (*Philonthus*) *aeneipennis*: Shibata, 1983: 92.

Diagnosis. Body length 7.5~8.0 mm, black, strongly shining, antennae, maxillary and labial palpi, and legs piceous. Head suborbicular, slightly narrower than pronotum. Pronotum slightly longer than broad, with dorsal row of 5 points.

Male genitalia (Figs. 1-3): Median lobe short and wide, apical process narrowing toward anterior, the tip blunt. Paramere pen-point shape with longitudinal groove. Sensory peg setae underside of paramere arranged compactly along lateral sides.

Material examined. Korea: Taejon, Shintanjin, Jul. 21, 1988, Y.B. Cho (3 HUNHM); Taegu,



Figs. 1-12. *Philonthus aeneipennis* Boheman: 1, aedeagus (ventral view); 2, aedoeagus (lateral view); 3, apical lobe of underside of paramere, with sensory peg setae. *Philonthus daimio* Sharp: 4, aedeagus (ventral view); 5, aedeagus (lateral view); 6, apical lobe of underside of paramere, with sensory peg setae. *Philonthus nakanei* Sawada: 7, aedeagus (ventral view); 8, aedeagus (lateral view); 9, apical lobe of underside of paramere, with sensory peg setae. *Philonthus numata* Dvořák: 10, aedeagus (ventral view); 11, aedeagus (lateral view); 12, apical lobe of underside of paramere, with sensory peg setae. Scale bar=0.2 mm (except 3, 6, 9, 12).

Kachangmyun, Mt. Cheongryongsan, Aug. 21, 1997, Y.B. Cho (9 HUNHM).

Distribution. Korea, Japan, China, Taiwan, Malaya, Sumatra, India, Ceylon, Sunda Is. New Guinea, Mauritius.

2. *Philonthus daimio* Sharp, 1889

점박이등좀반날개 (신칭)

Philonthus daimio Sharp, 1889: 42; Bernhauer et Schubert, 1914: 334; Shibata, 1985: 298.

Philonthus (*Gefyrobius*) *daimio*: Scheerpeltz, 1933: 1339.

Philonthus (*Bisnius*) *daimio*: Adachi, 1957: 183.

Daignosis. Body length 9~11 mm, head and pronotum shining, maxillary and labial palpi piceous black, legs yellowish brown but tibia piceous partially. Head suborbicular, with coarse punctures on surface except middle area, narrower than pronotum; eyes protruded slightly. Pronotum a little narrowing anteriorly, with coarse punctures, leaving an irregular space along the middle smooth.

Male genitalia (Figs. 4-6): Middle area of the tip of median lobe emarginated slightly. Paramere bilobed (Y-shaped). Sensory peg setae on underside of paramere very compacted.

Material examined. Korea: Chonranamdo, Jangseonggun, Samkyemyun, Whasanri, Jul. 11, 1998, Y.B. Cho, by light trap (12 HUNHM); Chungcheongpukdo, Okchongun, Jangkyeri, Aug. 4, 1986, Y.B. Cho, by light trap (14 HUNHM).

Distribution. Korea, Japan.

Remark. This species is superficially similar to *P. gastralis* Sharp but clearly different in male genitalia with bilobed paramere.

3. *Philonthus nakanei* Sawada, 1965

가시발좀반날개 (신칭)

Philonthus nakanei Sawada, 1965: 14; Shibata, 1985: 298; Li, 1992: 53; Li and Chen, 1993: 35.

Philonthus (*Onycophilonthus*) *nakanei*: Shibata, 1983: 123.

Diagnosis. Body length 9.0~13.0 mm, black, head and pronotum with microsculptures, dull shining. Head subrectangular in male but female suborbicular, narrower than pronotum. Pronotum clearly narrowing anteriorly, with dorsal row of 5 points. The last tarsomere of front leg with several long blackish spicules.

Male genitalia (Figs. 7-9): Median lobe thin and elongate, subapical area slightly broad, the tip very sharp. Paramere elongate, shorter than median lobe. Sensory peg setae on underside of paramere arranged along lateral sides.

Material examined. Korea: Kangwondo, Taebaek, Mt. Taebaeksan, Aug. 1, 1986, Y.B. Cho (9 HUNHM); Kangwondo, Pyungchanggun, Mt. Odaesan, Aug. 14, 1987, Y.B. Cho (3 HUNHM); Kyungsangnamdo, Sanchonggun, Jungsanri, Mt. Jirisan, Oct. 2-3, Y.B. Cho (3 HUNHM).

Distribution. Korea, Japan, China.

Remark. This species is easily identified from the other species of genus *Philonthus* by long blackish spicules of front tarsus.

4. *Philonthus numata* Dvořák, 1958

호리좀반날개 (신칭)

Philonthus numata Dvořák, 1958: 139; Li, 1992: 53; Li and Chen, 1993: 35; Shibata, 1985: 294.

Philonthus (*Philonthus*) *numata*: Shibata, 1983: 111.

Daignosis. Body length 5.0~5.5 mm, black, shining, head and pronotum with microsculptures, antennae, maxillary and labial palpi reddish brown. Head oblong, very slightly narrow than pronotum. Pronotum slightly narrowing anteriorly, with dorsal row of 5 points.

Male genitalia (Figs. 10-12). Lateral sides of median lobe parallel but narrowing from subapical to apex. Paramere bilobed, each lobe with 2 sensory peg setae.

Material examined. Korea: Chungcheongpukdo, Okchongun, Jangkyeri, Aug. 4, 1986, Y.B. Cho, by light trap (1 HUNHM); Taejon, Shintanjin, Jul. 21, 1988, Y.B. Cho (1 HUNHM); Taejon, Ojungdong, Hannam Univ. campus, Sep. 1, 1982, Y.B. Cho (9 HUNHM); Chonrapukdo, Chonju, Mt. Kodeoksan, Jun. 10, 1991, Y.B. Cho (1 HUNHM); Kyungsangpukdo, Kimchon, Mt. Whangaksan, May 11, 1987, Y.B. Cho (2 HUNHM); Kyungsangpukdo, Andong, Nokjeonmyun, Aug. 10, 1988, K.S. Lee (3 HUNHM); Kyungsangnamdo, Hapchongun, Mt. Kayasan, Oct. 4, 1986, Y.B. Cho (1 HUNHM); Chejudo, Kyoraeri, Aug. 10, 1985, K.S. Lee (5 HUNHM).

Distribution. Korea, Japan, China.

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한국산 좀반날개속(곤충강, 딱정벌레목, 반날개과)의 4미기록종

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적 요 - 한국산 반날개속에 대한 분류학적 재검토를 수행하였다. 그 결과, 4종이 한국산 미기록종으로 밝혀졌다(*P. aeneipennis* Boheman, *P. daimio* Sharp, *P. nakanei* Sawada, and *P. numata* Dvo k). 미기록종에 대한 종 기재와 수컷 생식기 구조를 도식하였다. 한국산 반날개속은 총 26종이 된다.