

Some Ground Beetles (Coleoptera, Carabidae) from Korea

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한국산 먼지벌레 (XI)

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ABSTRACT

Herein, 22 species of the ground beetles are reported from Korea. Of these, 3 species, *Chlaenius kurosawai* Kasahara, *Chlaenius rambouseki* Lutshnik, and *Dromius jureceki* Jedlička are listed for the first time from South Korea.

Key words : Coleoptera, Carabidae, fauna, new record, Korea

INTRODUCTION

Recently, Park and Paik (2001) revised the checklist of Korean ground beetles (except Cicindelini, Carabini, and Cychrini) with some information on collection. However, we found a number of errors and omissions of Korean species, and misinterpretation of earlier references on the Korean carabid beetles by the first author. These are not presented here in order to avoid the incorrect subsequent citations and typographical errors, etc. which will be corrected in the near future.

In this paper 22 species are reported from Korea. Of these, 3 species are listed for the first time in southern part of the Korean Peninsula. The materials collected by the authors were examined and all the specimens are deposited in the Department of Applied Biology, College of Agriculture, Suncheon National University (SCNAE), Korea.

The abbreviations used herein for provincial names of Korea are as follows: CB-Chungcheongbuk-do, CN-Chungchongnam-do, GB-Gyeongsanbuk-do, GG-Gyeonggi-do, GN-Gyeong-sangnam-do, GW-Gangweon-do, JB-Jeonllabuk-do, JJ-Jeju-do, JN-Jeonllanam-do.

DESCRIPTIONS

1. *Amara aurichalcea* Germar, 1824 금빛동글먼지벌레

Amara aurichalcea Germar, 1824, Col. spec. nov., p. 10 (Altai).

Bradytus brevipennis Chaudoir, 1844, Bull. Soc. Nat. Mosc., 17: 446 (Altai); Bates, 1888, Proc. Zool. Soc. Lond., 1888: 370 (Korea); Kano, 1923, Ins. world, 27(315): 383 (Korea); Kano, 1924, Ins. world, 28(326): 351 (Korea); Yano, 1941, Nippon no Kôchû, 4(1): 29 (Korea).

B. aurichalcea Germar: Yano, 1941, Nippon no Kôchû, 4(1): 29 (Korea).

A. (Bradytus) aurichalcea Gebl. [sic] : Heyden, 1887, Horae Soc. ent. Rossicae, 29: 247 (Korea).

A. (Bradytus) aurichalcea Germar: Hieke, 1975, Dt. Ent. Z., N.F., 22: 290-291 (Korea); Lafer, 1980, Taxonomij Nase. Dal'nego Vostoka, p. 51-52 (Korea); Lafer, 1989, Key. Ins. Russian Far East, (3), 1: 172 (Korea); Kirschenhofer, 1997, Annls hist.-nat. Mus. natn. hung., 89: 110 (North Korea).

Materials examined. 1 ♀, 27-IV-1994, Temple Hyangrim-sa, Suncheon-si, JN; 2 ♂, 1 ♀, 9-V-2002, Cheongso-ri, Seomyeon, Suncheon-si, JN; 1 ♀, 28-IV-2002, Eochi, Jinsang-

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myeon, Gwangyang-si, JN; 2♂, 24-V-1985, Mt. Weolaksan, Jecheon-si, CB.

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

Notes. Belongs to the subgenus *Bradytus* Stephens (1828, Illust. British Entomol., 1: 136). First record in Korea by Heyden (1887) as *A. (Bradytus) aurichalceus* Gebl. This species was collected under the stone near water stream. Nine species of this subgenus are listed from the Korean Peninsula (ESK & KSAE 1994), but the distribution of the Japanese species, *A. (Bradytus) ampliata* Bates is very doubtful. *A. (Bradytus) ampliata* must be a misidentification of this species or *A. pallidula* (Motschulsky 1844) by Korean reporters. For more details, see Hieke (1975) and Lafer (1980, 1989). A new revision of the Korean species is needed.

2. *Amara coraica* Kolbe, 1886 참둥글먼지벌레

Amara (Celia) coraica Kolbe, 1886, Archiv f. Naturgesch., 52(1): 173 (Korea); Kano, 1924, Ins. world, 28(326): 351 (Korea).

A. coraica Kolbe: Yano, 1941, Nippon no Kôchû, 4(1): 28 (Korea: Shuotsu).

A. (Amara) coraica Kolbe: Hieke, 1973, Dtsch. ent. Z., N. F. 20(1/3): 35 (Korea); Lafer, 1989, Key. Ins. Russian Far East, (3), 1: 163 (*coreica* [sic]).

Materials examined. 1♀, 20-III-1973, 1♂, 26-III-1985, 1♂, 9-IV-1982, 1♀, 8-VII-1982, Suweon, GG; 1♀, 5-IX-1974, Gwangneung, GG; 1♂, 9-VI-1973, Mt. Cheonggyesan, Gwacheon-si, GG.

Distribution. Korea, Northern China, Mongolia, Russian Far East.

Notes. Belongs to the subgenus *Amara* s. str. Described from Söul (= Seoul), central part of the Korean Peninsula by Kolbe (1886) as *A. (Celia) coraica*. Later, Hieke (1973) examined the type specimens and transferred it to the subgenus *Amara* s. str. For synonyms and other information, refer to Hieke (1973).

3. *Bembidion coreanum* Jedlička, 1946 고려강변먼지벌레

Bembidion (Princidium) coreanum Jedlička, 1946, Descr. Car. nouv. l'Asie., p. 1 (Korea: Bunpyoni-Rigen-Gun).

B. (Princidium) coreanum Jedlička: Kirschenhofer, 1984, Koleopt. Rundsch., 57: 79 (Korea); Kwon & Lee, 1986, Ins. Koreana, 6: 24 (Korea); Kirschenhofer, 1997, Annl. hist.-nat. Mus. natn. hung., 89: 105 (N. Korea).

Materials examined. 1♀, 5-VIII-1993, Bukcheju-kun, JJ; 2♂, 2♀, 15-VIII-2001, Sangju-si, GB; 1♀, 23-VII-1998, Suncheon-si, JN; 2♂, 2♀, 3-VI-2001, Haban, Is. Oe-narodo, Goheung-gun, JN; 3♂, 3♀, 3-X-2002, Gurye-eup, Gurye-gun, JN; 3♂, 3♀, 6-X-2002, Aprojok, Okgok-myon, Gokseong-gun, JN.

Distribution. Korea, China, Russian Far East.

Notes. Belongs to the subgenus *Princidium* Motschulsky (1864, Bull. Soc. Nat. Mosc., 37(3): 181). Described from North Korea by Jedlička (1946). This species was recorded from southern part of the Korean Peninsula including Jeju Island (= Jeju-do, Chejudo, Quelpart Island) for the first time. Rather common and widely distributed. All the specimens collected from river side and small stream banks.

A number of subgenera of the diverse genus *Bembidion* have been treated as a distinct genus by several European researchers. A new revision of Korean species of the genus *Bembidion* is needed. Several species of this genus await description.

4. *Bembidion chloreum* Bates, 1873 풀색강변먼지벌레

Bembidion chloreum Bates, 1873, Trans. R. ent. Soc. Lond., p. 332 (China).

B. (Peryphus) chloreum Bates: Kano, 1923, Ins. World, 27(315): 383 (Korea); Kano, 1924, Ins. World, 28(326): 351 (Korea); Csiki, 1928, Col. Cat., 97: 90; Yano, 1941, Nippon no Kochu, 4(1): 25 (Korea); Netolitzky, 1943, Koleopt. Rdschau, 29(1/3): 36; Jedlička, 1965, Ent. Abh., 32(7): 146.

Materials examined. 1♂, 5-VI-1994, Temple Unjusa, Doap-myeon, Hwasun-gun, JN; 5 ex, 29-V-1988, Suncheon-si, JN; 1♂, 10-IX-2002, Bonggang, Gwangyang-si, JN.

Distribution. Korea, Japan, China.

Notes. Belongs to the subgenus *Asioperiphus* Vysoký (1986, Fauna Bohemiae Septentr., 11: 94). First record in Korea by Kano (1923). The distribution of this species is confirmed from the southern part of the Korean Peninsula.

5. *Bembidion morawitzi* Csiki, 1928 모라비치강변먼지벌레

Bembidion morawitzi Csiki, 1928, Col. Cat., 97: 104 (Japan). New name for *B. cognatum* Morawitz, 1862.

B. consentreum Germinger & Harold, 1868, Cat. Col., 1: 409 (Japan), (nec Leconte 1852); Yano, 1941, Nippon no Kôchû, 4(1): 24 (Korea). [Preoccupied]

B. morawitzi Csiki: Kirschenhofer, 1997, Annl. hist.-nat. Mus. natn. hung., 89: 106 (N. Korea).

Ground Beetles from Korea

B. (Peryphus) morawitzii Csiki: Csiki, 1928, Coleopt. Cat., 97: 104; Netolitzky, 1943, Koleopt. Rundsch., 29(1/3): 17; Jedlička, 1965, Ent. Abh., 32(7): 129 (Korea); Kirschenhofer, 1984, Koleopt. Rundsch., 57: 75 (Korea); Kwon & Lee, 1986, Ins. Koreana, 6: 22 (Korea); Lafer *et al.*, 1997, Ent. Fennica, 8(1): 15 (Korea).

Materials examined. 1 ex, 15-VII-1971, Suweon, GG; 3 ex, 13-IX-1979, Suweon, GG; 1 ex, 8-IX-1993, Chuncheon, GW; 5 ex., 6-VI-2000, Naribunji, Is. Ullengdo, GB.

Distribution. Korea, Japan, NE China, Russian Far East.

Notes. Belongs to the subgenus *Peryphus* Dejean (1821, Cat. Col., p. 17). Listed in Korea by Yano (1941) as *B. concentreum*, but the earlier reference could not be traced. The distribution of this species was confirmed from the southern part of the Korean Peninsula. Common and widely distributed.

6. *Bembidion oxyglymma* Bates, 1883 애기강변먼지벌레

Bembidium (Peryphus) oxyglymma Bates, 1883, Trans. R. ent. Soc. Lond., p. 273 (Japan).

B. (Trichoplataphus) oxyglymma (Bates): Netolitzky, 1943, Koleopt. Rundsch., 28(4/6): 109; Jedlička, 1965, Ent. Abh., 32(7): 117.

B. (T.) oxiglymma [sic] Bates: Kwon & Lee, 1986, Ins. Koreana, 6: 22 (Korea).

Materials examined. 10 ex, 25-V-2002, Hakcheon-ri, Sacheon-si, JN; 1 ex, 25-V-1986, Hongcheon, GW; 5♂, 5♀, 13-VII-2002, Eochi-ri, Donggye-myon, Sunchang-gun, JB; 1♀, 29-IX-2002, Temple Borimsa, Mt. Gajisan, Jangheung-gun, JN; 3♂, 3♀, 2-VI-2002, Gurye-eup, Gurye-gun, JN.

Distribution. Korea, Japan.

Notes. Belongs to the subgenus *Trichoplataphus* Netolitzky (1914, Ent. Blätter, 10: 51). Listed in Korea by Kwon & Lee (1986), but the earlier reference could not be traced. The distribution of this species confirmed was from the southern part of the Korean Peninsula. Widely distributed.

7. *Bembidion scopulinum* (Kirby, 1837) 별강먼지벌레

Peryphus scopulinum Kirby, 1837, Fauna Bor.-Amer., 4: 53 (N. America).

Peryphus obliquelunatus Motschulsky, 1844, Mém. Acad. Sci. St.-Pétersb., 5: 244 (Mongolia).

Omala thermarus Motschulsky, 1844, Mém. Acad. Sci. St.-Pétersb., 5: 255 (Transbaikalia, Siberia).

Bembidion thermarus mongolicum Jedlička, 1965, Ent. Abh.,

32(7): 127 (Mongolia).

B. thermarus (Motschulsky): Yano, 1941, Nippon no Kôchû, 4(1): 24 (Korea).

B. (Peryphus) thermarus (Motschulsky): Netolitzky, 1943, Koleopt. Rundsch., 29(1/3): 9 (Korea); Jedlička, 1965, Ent. Abh., 32(7): 126 (Korea); Kirschenhofer, 1984, Koleopt. Rundsch., 57: 82 (Korea).

B. scopulinum (Kirby): Lindroth, 1963, Opusc. Ent. Suppl., 24: 342; Kirschenhofer, 1997, Anns hist.-nat. Mus. natn. hung., 89: 105 (N. Korea).

B. (Peryphus) scopulinum (Kirby): Jedlička, 1960, Anns hist.-nat. Mus. natn. hung., 52: 230 (Korea); Kwon & Lee, 1986, Ins. Koreana, 6: 22 (Korea).

B. (Ocydromus) scopulinum (Kirby): Kryzhanovskij *et al.*, 1995, Checklist of the ground-beetles of Russia, p. 87.

Materials examined. 3 ex, 31-VII-1998, Mt. Gyeryongsan, near Daejeon, CN; 7 ex, 22-VI-2001, Mt. Seonunsan, Gochang-gun, JB; 2♀, 2♂, 27-VII-1998, Suncheon, JN.

Distribution. Korea, Japan, China, Mongolia, Russian Far East, North America.

Notes. Belongs to *Ocydromus* Clairville (1806, Ent. Helv., 2: 20). This subgenus is understood by the strict sense. The species which had displayed punctures between the frontal furrows were treated as the subgenus *Ocydromus* (in *Peryphus*, smooth with no punctures) by several authors. For more details of this subgenus, refer to Müller-Motzfeld (1986a, b). First record in Korea by Yano (1941) as *B. thermarus* Motschulsky. Common and widely distributed in the Korean Peninsula.

8. *Brachinus macrocerus* Chaudoir, 1876

긴목가는먼지벌레 (新稱)

Brachynus macrocerus Chaudoir, 1876, Ann. Soc. ent. Belg., 19: 51, 67 (new name for *B. longicornis* Motschulsky, 1860); Tschitschérine, 1895, Horae Soc. Ent. Ross., 29: 188 (Korea); Kano, 1924, Ins. world, 28(326): 352 (Korea); Yano, 1941, Nippon no Kôchû, 4(1): 35 (Korea).

B. longicornis Motschulsky, 1860, Schrenck's Reis. Forsch. Amur, 2: 92-93 (Amur-Siberia), (nec Fairmaire, 1859); Lafer, 1992, Key Ident. Ins. Russian Far East, 3(2): 701 (Korea). [Preoccupied]

B. stenoderus a. sutshanensis Jedlička, 1963, Ent. Abh., 28(7): 544 (China).

B. macrocerus Chaudoir: Kryzhanovskij *et al.*, 1995, Checklist of the ground-beetles of Russia., p. 171.

Materials examined. Many specimens collected from Suncheon area.

Distribution. Korea, Northeast China, Russian Far East.

Notes. First record in Korea by Tschitschérine (1895). We sent several specimens of *Br. stenoderus* collected from Mt. Jirisan, to the Vladivostok, where Dr. Lafer kindly compared them with the Ussurian *Br. longicornis* Motschulsky, 1860 who told us the Korean specimens are conspecific with *macrocerus* (= *longicornis* Motschulsky 1860). These 2 species are very similar, but their male genitalia differ from each other. On account of the pale abdominal sternites and metepisternum, this species comes near *B. stenoderus*, from which it is readily distinguished by the following key. Widely distributed including Jeju-do on the water sides in forest.

Five species of this genus are listed from Korea (ESK & KSAE 1994), but three species of this genus have not yet been collected from the southern part of the Korean Peninsula. The Korean species of this genus needs further examination.

- 1(2) Metepisternum and abdomen blackish; apex of apical lamella of aedeagus round; body length 6.0-12.0 mm. Russian Far East, Japan, Korea. *B. stenoderus* Bates
 2(1) Metepisternum and ventral side entirely light; apex of apical lamella of aedeagus curved downward; body length 6.0 -12.0 mm. Russian Far East, Northeast China, Korea. *B. macrocerus* Chaudoir

9. *Brachinus stenoderus* Bates, 1873 큰목가는먼지벌레

Brachinus stenoderus Bates, 1873, Trans. ent. Soc. London, p. 305-306 (Japan); Kurosa, 1949, Bull. Takarazuka Ins., 60: 19 (Korea); Jedlička, 1960, Annls hist.-nat. Mus. natn. hung., 52: 231 (Korea); Jedlicka, 1963, Ent. Abh., 28(7): 544 (Korea); Nakane, 1963, Icon. Ins. Jap. Colore Nat., 2, Col., p. 54 (Korea); Habu, 1967, Fauna Japonica, Truncatipen., p. 299, 302-306 (Korea); Lafer, 1989, Key Ident. Ins. Russian Far East, 3(1): 222 (Korea); Kirschenhofer, 1997, Annls hist.-nat. Mus. natn. hung., 89: 115 (N. Korea).

Material examined. 3♂, 7♀, 23-V-2002, Yongho-ri, Gandong-myeon, Hwacheon-gun, GW.

Distribution. Korea, Japan, Russian Far East.

Notes. First record in Korea by Kurosa (1949). See notes on *B. macrocerus* Chaudoir.

10. *Calleida lepida* Redtenbacher, 1867 노랑머리먼지벌레

Calleida lepida Redtenbacher, 1868, Reise Novara, Zool., p. 6 (China: Hongkong).

C. (Callidiola) chujoi Habu, 1960, Bull. Natl. Inst. Agr. Sci., (C), 12: 159, 165-166, 169 (Japan).

C. chloroptera var. *lepida* Redtenbacher: Csiki, 1932, Col. Cat., 126: 1439; Cho, 1957, Hum. & Sci., Nat. Sci., Korea Univ., 2: 196 (Korea).

C. lepida Redtenbacher: Heyden, 1887, Horae Soc. ent. Rossicae, 29: 247 (Korea); Kano, 1924, Ins. World, 28(326): 352 (Korea); Yano, 1941, Nippon no Kôchû, 4(1): 36 (Korea).

C. (Callidiola) lepida Redtenbacher: Habu, 1960, Bull. Natl. Inst. Agr. Sci., (C), 12: 159, 163-165, 169 (Korea); Habu, 1967, Fauna Japonica, Truncatipennes, p. 123, 129-131 (Korea).

C. (C.) lepida Redtenbacher: Habu, 1982, Ent. Rev. Japan, 27 (2): 98-99 (Korea); Kwon et Lee, 1986, Ins. Koreana, 6: 51 (Korea).

Materials examined. 1♀, 21-VI-1981, Mt. Jiri-san, JN; 1♀, 25-VI-1981, Mt. Jiri-san, JN; 2♀, 5♂, 26-VII-1988, Andong, GB.

Distribution. Korea, Japan, China, Taiwan, SE Asia, Philippine.

Notes. Belongs to the subgenus *Callidiola* Jeannel (1949, Col. Carab. Malgache, 3: 947, 952-953). First record in Korea by Heyden (1887). Widely distributed. For more details, see Habu (1967, 1982).

11. *Calleida onoha* (Bates, 1873) 녹색먼지벌레

Calleida onoha Bates, 1873, Trans. R. ent. Soc. Lond., p. 317-318 (Japan).

Callida onoha ab. *japonica* Jedlička, 1953, Ent. Blätt., 49: 146 (Japan).

C. onoha ab. *fukiensis* Jedlička, 1953, Ent. Blätt., 49: 146 (China).

C. japonica Jedlička: Jedlička, 1960, Annls hist.-nat. Mus. natn. hung., 52: 231 (Korea).

C. (Callidiola) onoha Bates: Habu, 1960, Bull. Natl. Inst. Agr. Sci., (C), 12: 158, 159-160 (Korea); Habu, 1967, Fauna Japonica, Truncatipennes, p. 123, 124-126 (Korea).

Calleida (Callidiola) onoha (Bates): Nakane, 1963, Icon. Ins. Japan, Colore natur. edit., 2: 51, pl. 26, fig. 11 (Korea); Habu, 1982, Ent. Rev. Japan, 37(2): 95-96 (Korea).

Materials examined. 1 ex, 30-VII-1987, Is. Naro-do, Goheung-gun, JN; 1 ex, 10-V-1983, Suweon, GG.

Distribution. Korea (incl. Jeju-do), Japan, China, Taiwan.

Notes. Belongs to the subgenus *Callidiola* Jeannel. First

record in Korea by Jedlička (1960) as *Callida japonica*.

12. *Chlaenius kurosawai* Kasahara, 1996

월악무늬먼지벌레 (新稱)

Chlaenius (*Chlaenius*?) *kurosawai* Kasahara, 1986, Ent. Pap. pres. Kurosawa, Tokyo, p. 147-152 (Japan).

Materials examined. 1 ♀, 19-V-2001, Mt. Weol-ak-san, Jecheon-si, CB.

Distribution. Korea*, Japan, Russian Far East.

Notes. New to Korea. Belongs to the subgenus *Achlaenius* Mandl (1992, Ann. Naturhist. Mus. Wien, 93B: 93-94). We thank to Dr. G. Sh. Lafer, Vladivostok, and Dr. K. Tanaka, Japan, who offered Ussurian and Japanese specimens for comparison. A single Korean specimen is conspecific with Ussurian and Japanese specimens. A key to the related species, see Kasahara (1986). Lindroth (1969) and Habu (1987) treated this diverse genus without dividing it to subgenera. Also, a number of the subgenera have been treated as a distinct genus by several European researchers (Jeannel 1949, etc.). A revisional work of Korean species is needed.

13. *Chlaenius pericallus* Redtenbacher, 1867

노랑줄무늬먼지벌레

Chlaenius pericallus Redtenbacher, 1867, Reise Novara, 2, Col. t. 1, f. 4 (China: Hongkong).

Chlaenius pericallus Redtenbacher: Habu, 1987, Ent. Rev. Japan, 42(1): 26.

Callistoides pericallus Redtenbacher: Kirschenhofer, 1998, Acta Ent. Slovenica, 6(1): 24.

Chlaenius (*Callistoides*) *pericallus* Redtenbacher: Park & Paik, 2001, Ins. Koreana, Suppl., 19: 116 (Korea).

Materials examined. 1 ♀, 21-VI-1958, Suweon, GG.

Distribution. Korea, Japan, China.

Notes. Belongs to the subgenus *Callistoides* Motschulsky (1864, Bull. Soc. Imp. Nat. Mosc., 37: 334). This species erroneously was listed in Korea by Park & Paik (2001), but the distribution of this species was confirmed in South Korea. For more details, see Kirschenhofer (1998).

14. *Chlaenius rambouseki* Lutshnik, 1933

개울무늬먼지벌레 (新稱)

Chlaenius (*Hemichlaenius*) *rambouseki* Lutshnik, 1933, Časop. Čsl. Spol. Entom., 30(4): 172 (Siberia or.: Ussuri).

C. noguchii Bates: Ishii, 1940, Sci. Rept. Keityu, 5: 40 (Korea: Seoul, Hangang). [Misidentification]

Agilochlaenius formosanus (Jedlička): Kirschenhofer, 1997, Anns hist.-nat. Mus. natn. hung., 89: 108 (N. Korea). [Misidentification]

Material examined. North Korea - 2 ex, Kumgang-san, Samil-po, GW, Korea, 18. VI 1988, O. Merkl & G. Szél. leg., N 1326 (HNHM) with labels: *Chlaenius agiloides* Jedl. Det. Kirschenhofer and *Agilochlaenius formosanus*. [Kirschenhofer, det.]

South Korea: -1 ♀, 16-VII-1927, 1 ♀, 1-VIII-1927, Suigen (= Suweon), GG; 2 ♂, 6 ♀, 23-V-2002, Yonghori, Gandongmyeon, Hwacheon-gun, GW; 1 ♀, 20-VI-2002, Gurye-eup, Gurye-gun, JN.

Distribution. Korea*, Russian Far East.

Notes. Belongs to subgenus *Lithochlaenius* Kryzhanovskij (1976, Trudy Biol. -pochv. inst. N. S., Vladivostok, 45(146): 12). Kirschenhofer (1997) elected a new genus *Agilochlaenius* (type-species: *Chlaenius latro* LaFerté-Sénectère, 1851). Later this genus is sunken to junior synonym of *Lithochlaenius* by himself (2000). Four species, i.e. *Ch. rambouseki* Lutshnik, *Ch. noguchii* Bates, *Ch. praefectus* Bates, and *Ch. formosensis* Lorenz (= *formosanus* Habu 1965, nec Jedlicka 1935) occur in East Asia (cf. Habu 1987).

First record in Seoul (Hangang = Han River), Korea by Ishii (1940) as *Ch. noguchii* Bates, but his materials must be identical to *Ch. rambouseki* Lutshnik. Unfortunately, we could not examine this species deposited at Keyjo Middle School, because all the specimens were destroyed during the Korean War. Also recorded in North Korea by Kirschenhofer (1997) as *Ag. formosanus* Habu. We have seen two female specimens deposited at Hungarian Natural History Museum, via Dr. J.-K. Park, Sangju National University who loaned from Hungarian Natural History Museum. These North Korean specimens are misidentifications of this species.

Several old collections of *Ch. noguchii* Bates at Entomological Laboratory, Kyushu University, Japan were examined by the senior author in 2003.

We thank to Dr. G. Sh. Lafer, Vladivostok, who offered Ussurian specimens for comparison. This species occurs under stones on the river sides. The species can be identified by the following key.

1(2) Elytral intervals notched, with one row of punctured-pubesence along each stria and only two outer intervals punctured-pubesence throughout. Japan.
 *Ch. noguchii* Bates

2(1) Elytral intervals flat, with 4-5 rows of pubescent-punctate throughout. Russia: Prymorye; Korean Peninsula.
..... *Ch. rambouseki* Lutshnik

15. *Dromius jureceki* Jedlička, 1935

해변선두리먼지벌레 (新稱)

Dromius jureceki Jedlička, 1935, Neue Carab. aus Ostasien, 10: 17, fig. 2 (China: Szetschuan).

Lebidromius jureceki Jedlička: Jedlička, 1963, Ent. Abh., 28: 416.

Dromius (Lebidromius) jureceki Jedlička: Lafer, 1989, Key Ins. Russian Far East, (3), 1: 218.

Dromius (Klepterus) jureceki Jedlička: Lorenz, 1998, Systematic list of extant ground beetles of the world, p. 451.

Materials examined. 1 ♀, Hongcheon, 28-VII-1994, Hongcheon, GW (IAS).

Distribution. Korea*, China, Russian Far East.

Notes. New to Korea. This species belongs to the subgenus *Klepterus* Péringuey (1896, Trans. S. Afr. Philos. Soc., 6: 223). Thanks to Dr. G. Sh. Lafer, Vladivostok, who compared with Ussurian species and confirmed our identification of this species.

The genus *Dromius* divided into several subgenera: subgenus *Paradromius* and *Philorhizus* treated as a distinct genus by some researchers. Only one species is listed, but *D. prolixus* Bates, 1883 has not yet been collected from the southern part of the Korean Peninsula. The species may be easily recognized by the following key (after Lafer 1989: 218).

1(2) Brownish yellow. Eyes black. Elytra usually with light brown sutural strip including three intervals at either elytron. Length of body 5.2-5.5 mm.
..... *D. (Klepterus) jureceki* Jedlička

2(1) Dorsum of body dark brown, undersides lighter. Length of body 6.5-7.0 mm. *D. (Klepterus) prolixus* Bates

16. *Lachnocrepis prolixus* (Bates, 1873)

넓은호리병먼지벌레

Oodes prolixus Bates, 1873, Trans. R. Ent. Soc. London, p. 254 (Japan).

Oodes (Lachnocrepis) prolixus H. Bates: Lafer, 1989, Keys Ident. Ins. Far East Russia, (3), 1: 205 (Korea).

Lachnocrepis (Eulachnocrepis) prolixus (Bates): Habu, 1956, Bull. Nat. Inst. Agr. Sci., Ser. C, 6: 96.

Lachnocrepis prolixus (Bates): Lafer, 1973, Ent. Obozr., 52(4): 847 (Korea).

Materials examined. 1 ♀, 16-X-2001, Sihwa-ho, Ansan, GG.

Distribution. Korea, Japan, NE China, Russian Far East.

Notes. First record in Korea by Lafer (1973). The distribution of this species in South Korea is confirmed. Very rare. According to Lafer (1973), this species inhabits the meadows in the Maritime Territory, at the mouth of river in Khasan, on the lowland of Khanka. Very common in Russian Far East (Lafer: *in litteris*).

17. *Lebia iolanthe* Bates, 1883 애십자무늬먼지벌레

Lebia iolanthe Bates, 1883, Trans. R. ent. Soc. Lond., p. 287 (Japan).

Lebia (Lebia) jolanthae [sic] Bates: Jedlička, 1963, Ent. Abh., 28: 315, 333.

Lebia (Poecilothais) iolanthe Bates: Habu, 1967, Fauna Japonica, Truncatipennes, p. 170, 179-180; Habu, 1983, Ent. Rev. Japan, 38(2): 112; Kwon et Lee, 1986, Ins. Koreana, 6: 52 (Korea).

Materials examined. 1 ♀, 14-VI-1993, Gongju, CN.

Distribution. Korea, Japan, China, Taiwan.

Notes. Belongs to subgenus *Poecilothais* Maindron (1905, Bull. Soc. Ent. France, p. 95). First record in Korea by Kwon & Lee (1986). This species is rather easily distinguished from other related species by the yellow patch of elytra. Very rare. Seven species of this genus occur in the Korean Peninsula, but *Lebia callitrema* Bates has not yet been collected from the southern part of the Korean Peninsula though reported from North Korea by Kirschenhofer (1997). For more details, refer to Habu (1967, 1983).

18. *Lioptera erotyloides* Bates, 1883 멧쟁이밑빠진먼지벌레

Lioptera erotyloides Bates, 1883, Trans. R. ent. Soc. Lond., p. 280-1 (Japan: Yuyama; Junsai); Jedlička, 1963, Ent. Abh., 28: 339, 340; Habu, 1967, Fauna Japonica, Carabidae, Truncatipennes, p. 97-99; Habu, 1982, Ent. Rev. Japan, 36(2): 141-142; Lafer, 2000, Far Eastern Entomol., No. 91: 11-12 (Korea); Park & Paik, 2001, Ins. Koreana, Suppl., 19: 21, 155, 166 (fig. 97).

Materials examined. 1 ♂, 7-VIII-1994, Gakok, Hwado-myeon, Namyangju-si, GG; 1 ♂, 23-VII-1994, Naebang, Sudong-myeon, Namyangju-si, GG; 1 ♀, 16-VII-1998, Anyang, GG; 1 ♀, 16-19-VII-1992, Gwangneung, GG.

Distribution. Korea, Japan, Southern China, Taiwan, Tong-

cing (after Jedlička 1963).

Notes. First record in Korea by Lafer (2000). Occasionally, attracted to light at night.

19. *Parena monostigma* (Bates, 1873) 한점선두리먼지벌레

Crossoglossa monostigma Bates, 1873, Trans. R. ent. Soc. Lond., p. 316 (Japan).

Parena japonica Jedlička, 1946, Descript. Carab. Nouv. Asie Orient, p. 10 (Japan); Jedlička, 1963, Ent. Abh., 28: 440, 443.

Parena monostigma (Bates): Jedlička, 1963, Ent. Abh., 28: 439, 443; Park & Kwon, 1998, Korean J. Soil Zool., 3(1): 39 (Korea).

Parena (Parena) monostigma (Bates): Habu, 1967, Fauna Japonica, Truncatipennes, p. 152, 158-159 (Japan); Kwon et Lee, 1986, Ins. Koreana, 6: 51 (Korea).

Material examined. 2 ex, 8-VII-1995, Temple Jeonghaesa, Suncheon, JN; 1 ex, 13-IX-1997, Dalgung, Mt. Jiri-san, JB.

Distribution. Korea, Japan.

Notes. First record in Korea by Kwon & Lee (1986). This species is very similar to *P. koreana* Kirschenhofer (1994: Linzer Biol. Beitr., 26(2): 1020) from North Korea, but differs from the latter species by the elytral patch. For more details of this and other related species, refer to Kirschenhofer (1994), Park & Kwon (1998), and Habu (1962, 1982).

20. *Perileptus japonicus* Bates, 1873 줌먼지벌레

Perileptus japonicus Bates 1873, Trans. R. ent. Soc. Lond., p. 296 (Japan); Yano, 1941, Nippon no Kôchû, 4(1): 23; Lafer, 1989, Keys Ident. Ins. Russian Far East, 3(1): 138 (Korea); Kirschenhofer, 1997, Anns hist.-nat. Mus. natn. hung., 89: 107 (North Korea).

Perileptus (s. str.) *japonicus* Bates: Uéno, 1969, Mem. Nat. Sci. Mus. Tokyo, 2: 58 (Korea).

Materials examined. 1 ♀, 6-VI-1998, Jayang, Sancheon-Gun, GN; 2 ♀, 30-V-1998, Mt. Gaya-san, GB; 2 ♀, 14-VII-1998, Suncheon-si, JN; 1 ♀, 13-IV-2002, Temple Hangrimsa, Suncheon-si, JN; 2 ♀, 17-VII-1998, Sueo Dam, Kwangyang-si, JN.

Distribution. Korea, Japan, China, Taiwan, Russian Far East.

Notes. Belongs to subgenus *Perileptus* s. str. First record in Korea by Yano (1941). Widely distributed. Common.

21. *Pterostichus rotundangulus* Morawitz, 1862

애길쭈먼지벌레

Pterostichus (Omaseus) rotundangulus Morawitz, 1862, Mém. Biol. Acad. Sci. St. Pet. 4: 209 (Ussuri).

Omaseus rotundangulus Morawitz: Bates, 1888, Proc. Zool. Soc. Lond., p. 370 (Korea); Kano, 1923, Ins. World, (Konchusekai), 27(315): 382 (Korea).

Feronia (Omaseus) rotundangulus [sic] (Morawitz): Yano, 1941, Nippon no Kôchû, 4(1): 27 (Korea).

Pterostichus rotundangulus Morawitz: Kano, 1924, Ins. World, (Konchusekai), 28(326): 351 (Korea); Cho, 1957, Hum. Sci. Kor. Univ. 2: 193 (Korea).

Pterostichus (Melanius) rotundangulus Morawitz: Jedlička, 1962, Ent. Abh., 26(21): 220 (Korea); Kirschenhofer, 1997, Anns hist.-nat. Mus. natn. hung., 89: 110 (N. Korea); Park & Paik, 2001, Ins. Koreana, Suppl., 19: 55 (North Korea).

Material examined. 1 ♀, 9-VII-1995, Eochi, Mt. Baekunsan, Gwangyang-si, JN.

Distribution. Korea, Japan, Russian Far East.

Notes. Belongs to the subgenus *Pseudomaseus* Chaudoir (1838, Bull. Soc. Nat. Mosc., 9(1): 10). The subgenus *Pseudomaseus* is treated as a good subgenus by the several North American authors, but Kryzhanovskij *et al.* (1995) has sunken the junior synonym of *Melanius*. First record in Korea by Bates (1888) as *O. rotundangulus* Morawitz. This species has also been reported from Jeju (= Cheju, Quelpart Island) by Kim & Oh (1991, Sci. Rep. Isl. Coast Cheju Isl., p. 155). But the specimens deposited in the Jeju Folklore and Natural History Museum and identified to the species by Kim & Oh could possibly be *Pt. solskyi* Chaudoir, in fact.

22. *Pterostichus subovatus* (Motschulsky, 1860)

둥글길쭈먼지벌레

Platysma subovata Motschulsky, 1860, Etud. Ent., 9: 6 (Japan).

Pterostichus kirishimanus Habu, 1954, Bull. Nat. Inst. Agr. Sci. Ser. C. 4: 290-292 (Japan).

Platysma (Bothriopterus) subovatum Motschulsky: Tschitschérine, 1900, Horae Soc. Ent. Ross., 34: 613 (Korea).

Feronia (Bothriopterus) subovata Motschulsky: Tschitschérine, 1895, Horae Soc. Ent. Rossicae, 29: 178 (Korea).

Pterostichus subovatum [sic] Motschulsky: Kano, 1924, Ins. World, (Konchusekai), 28(326): 351 (Korea).

Pterostichus subovatus Motschulsky: Jedlička, 1960, Anns hist.-nat. Mus. natn. hung., 52: 231 (N. Korea).

Pterostichus (Bothriopterus) subovatus (Motschulsky): Csiki, 1930, Coleopt. Cat., 112: 627 (Korea); Jedlička, 1962, Ent. Abh., 26(21): 216 (Korea); Park & Paik, 2001, Ins. Koreana, Suppl., 19: 55 (Korea).

Material examined. 1 ♂, 4-X-1986, Piagol, Mt. Jirisan, JN; 1 ♀, 28-IX-1991, Jeongryeogchi, Sannae-myon, Namweon-gun, JB.

Distribution. Korea, Japan, China (Manchuria), Russian Far East.

Notes. Belongs to the subgenus *Bothriopterus* Chaudoir (1838, Bull. Soc. Nat. Mosc. 11(1): 9). First record in Korea by Tschitschérine (1895) as *F. (Bothriopterus) subovatus* Motschulsky. Two species of this subgenus occur in the Korean Peninsula, but *Pt. adstirctus* Eschscholtz distributed only in the high mountains of northern part of North Korea.

적 요

한국산 먼지벌레 22종을 보고한다. 이 중에서 3종, *Chlaenius kurosawai* Kasahara (월악무늬먼지벌레: 신칭), *Chlaenius rambuseki* Lutshnik (개울무늬먼지벌레: 신칭)과 *Dromius jureceki* Jedlička (해변선두리먼지벌레: 신칭)는 우리나라에서 처음으로 보고한다.

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