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Three New *Catops* (Coleoptera, Leiodidae) from South Korea, with a Preliminary Check-list of the Subfamily Cholevinae Known from Korea

Masaaki NISHIKAWA

27–1–115, Higashi-kashiwagaya 1, Ebina, 243–0401 Japan

and

Young Bok CHO

Natural History Museum, Hannam University,
133, Ojung-dong, Taeduk-gu, Taejon, 306–791 Korea

Abstract Three new species belonging to the cholevine genus *Catops* are described from South Korea, *viz.*, *Catops coreanus* sp. nov., *C. chonbukensis* sp. nov. and *C. chejuensis* sp. nov. A preliminary check-list of cholevine beetles hitherto known from Korea is also provided. In the check-list, *Micronemadus pusillimus* (KRAATZ), *Catops angustitarsis angustitarsis* (REITTER), *C. lydiae* IABLOKOFF-KHNZORIAN and *C. miensis miensis* NAKANE are recorded for the first time from Korea.

Introduction

Only seven species of cholevine beetles have been recorded from Korea up to the present (cf. JEANNEL, 1936; SZYMCZAKOWSKI, 1975–'76; PAIK, 1985; KIM *et al.*, 1994). NISHIKAWA visited South Korea and made a small collection of the subfamily under the care of CHO, who had made a collection of the superfamily Staphyliniformia including the subfamily Cholevinae for investigation of the coleopteran fauna of Korea. We agreed to cooperate with each other in the taxonomic study of the Korean Cholevinae. In the present paper, we are going to describe three new species belonging to the genus *Catops* PAYKULL, and to compile a preliminary check-list of the cholevine species hitherto known from Korea.

With regard to the higher classification of the beetles, we followed that of NEWTON and THAYER (1992), LAWRENCE and NEWTON (1995) and NEWTON (1998), in which the former family Cholevidae was treated as the subfamily Cholevinae of the family Leiodidae. So far as the taxonomic arrangement is concerned, HANSEN (1997) and BEUTEL and MOLENDA (1997) have also adopted the same view on the basis of the result of their reexamination from different aspect.

The following relative measurements are given in each description (the abbrevia-

tions used are given in parentheses): length of head (HL); greatest width of head (HW); median length of pronotum (PL); greatest width of pronotum (PW); length of elytra (EL); greatest width of elytra (EW); length of the median lobe of male genitalia (MLL); arithmetic mean (M). Segmental measurements of antenna (SMA) are also given; whole length of specimen is measured from apical margin of clypeus to apices of elytra. The type series of each new species is preserved in the Natural History Museum, Hannam University, Taejon, Korea.

Descriptions

Catops coreanus M. NISHIKAWA et Y. B. CHO, sp. nov.

(Figs. 1–6)

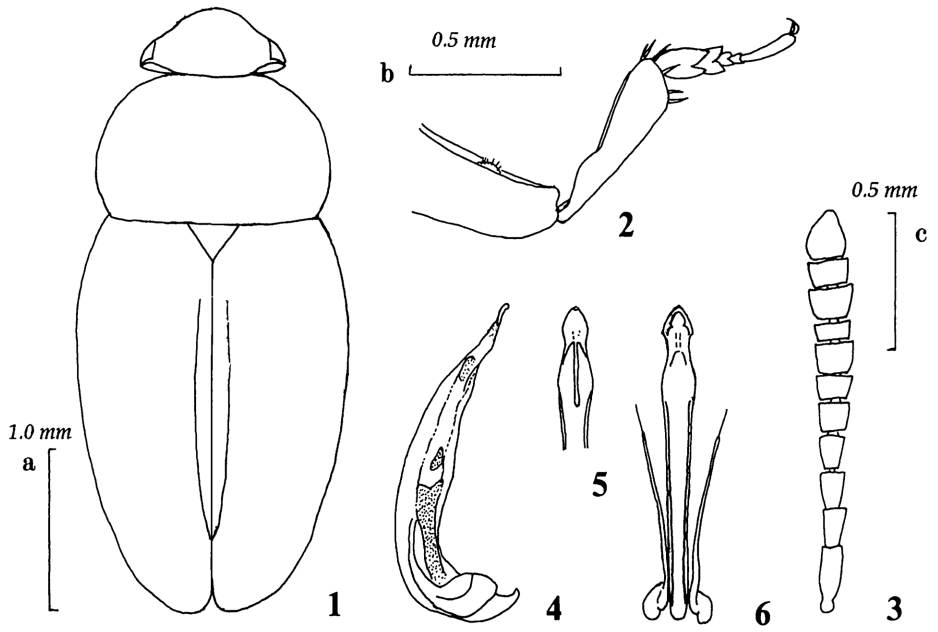
Male. Length 3.70–3.90 mm, width 1.73–1.83 mm. Body elliptical, almost wholly clothed with short, yellowish brown adpressed pubescence, with pronotum rather large, flattened. Colour blackish brown, except for mouth-parts, labrum, antennal segments I–II, and tarsi yellowish brown, with weak opalescent lustre on elytra.

Head gently convex, uniformly foveolate, the fovea shallow, with microsculpture as that on pronotum, weakly emarginate at front margin, widest at the level of occipital carina (HL : HW=1 : 1.4); labrum transverse, subtrapezoidal, slightly emarginate at front margin, with gentle punctuations; maxillary palpi with last segment 1.25 times as long as the penultimate one; eyes normal, moderately prominent. Antennae normal in shape, reaching basal 1/3 of pronotum, with segment V as long as wide, VI–X transverse, V–X depressed on under side, the depression with granulate punctuations, XI pear-shaped. SMA (length followed by width) in the holotype as follows: I, 0.19, 0.10; II, 0.11, 0.08; III, 0.13, 0.10; IV, 0.11, 0.10; V, 0.10, 0.10; VI, 0.09, 0.13; VII, 0.10, 0.13; VIII, 0.05, 0.13; IX, 0.10, 0.15; X, 0.09, 0.15; XI, 0.16, 0.13.

Pronotum transverse, subtrapezoidal, gently marginate except for distinct front margin, widest before the middle, with base narrower than elytral base, PW/HW 1.68–1.70 (M 1.69), PW/PL 1.40–1.41 (M 1.41); front margin well emarginate; front angles rounded; sides arcuate; basal margin gently arcuate; hind angles obtusely angulate; surface clothed with transversely rugose punctuations; microsculpture formed by minute punctures. Scutellum triangular, sparsely with minute punctuations. Hind wings full.

Elytra elongate-ovate, convex, widest at about basal 1/4, EW/PW 1.16–1.17 (M 1.17), EL/PL 2.43–2.46 (M 2.45), EL/EW 1.49–1.50 (M 1.50); sides gently arcuate, converging apicad, well marginate to apical 1/6, with apices separately rounded; suture entire; sutural striae indistinct in basal portions, each gently arcuate outwards; surface clothed with granulate punctures; microsculpture formed by dense minute punctures; epipleura ending at about apical 1/6, with punctuations transversely rugose. Pygidium with punctures foveolate; microsculpture as those on elytra.

Prosternum with uniformly granulate punctures. Meso- and metasterna with



Figs. 1–6. *Catops coreanus* M. NISHIKAWA et Y. B. CHO, sp. nov., from Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea. —— 1, Outline of body, ♂; 2, apical part of protibia, profemur and protarsus in dosal view, ♂; 3, left antenna, ♂; 4, male genitalia in lateral view (apical 2/3 of left paramere is omitted); 5, median lobe in ventro-apical view; 6, male genitalia in dosal view. Scales: a for Fig. 1, b for Figs. 2, 4–6, and c for Fig. 3.

obliquely rugose punctuations, the punctures dense but weak on the former, coarse but distinct on the latter. Mesepisterna punctate as on metasternum. Abdominal sternites simple in shape, except for sternite VIII narrowly but distinctly emarginate at the apex, with punctuations transversely rugose.

Legs normal in size, with protibia robust, strongly twisted, inwardly dilated in basal portion, strongly sinuate along inner margin, expanded towards apex, which is the widest; protarsus dilated in basal three segments, the first one 3/4 as wide as the apex of protibia; mesotarsus with the first segment also dilated, about 1/2 as wide as the apex of mesotibia; profemur with a small tubercle longitudinally elongated on the middle of under side, the tubercle with a few setae; metafemur roundly depressed before apex on under side.

Median lobe of male genitalia lanceolate, slender in dosal view, though moderately robust in lateral view, relatively long (MLL/EL 0.42 in the holotype), slightly twisted at base, with sides sinuate, though almost parallel to each other in ridged basal 2/3, slightly dilated outwards before marginate apical portions, which are rather angulately dilated outwards and convergent apicad, the apex also marginate, narrowly rounded; dorsal side well arcuate and ventral side bent at basal 1/4, with apex feebly tuberculate ventrad in lateral view; dorsal surface slightly depressed in preapical por-

tion, with a longitudinal groove at the middle from base to just before the apex; ligulae elongated, with apices separately rounded. Parameres slender, reaching about apical 1/3 of median lobe. Basal piece moderate in size.

Female unknown.

Type series. Holotype: ♂, Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea, 18–V–1998, Y. B. CHO leg. Paratype: 1 ♂, same data as for the holotype.

Notes. The present new species is similar to certain species of the genera *Sciodrepoides* HATCH or *Mesocatops* SZYMCZAKOWSKI in the disposition of aedeagal configuration. Judging from general appearance, however, it belongs to the genus *Catops* and seems to be placed near the *coracinus* or the *hilleri* groups.

Catops chonbukensis M. NISHIKAWA et Y. B. CHO, sp. nov.

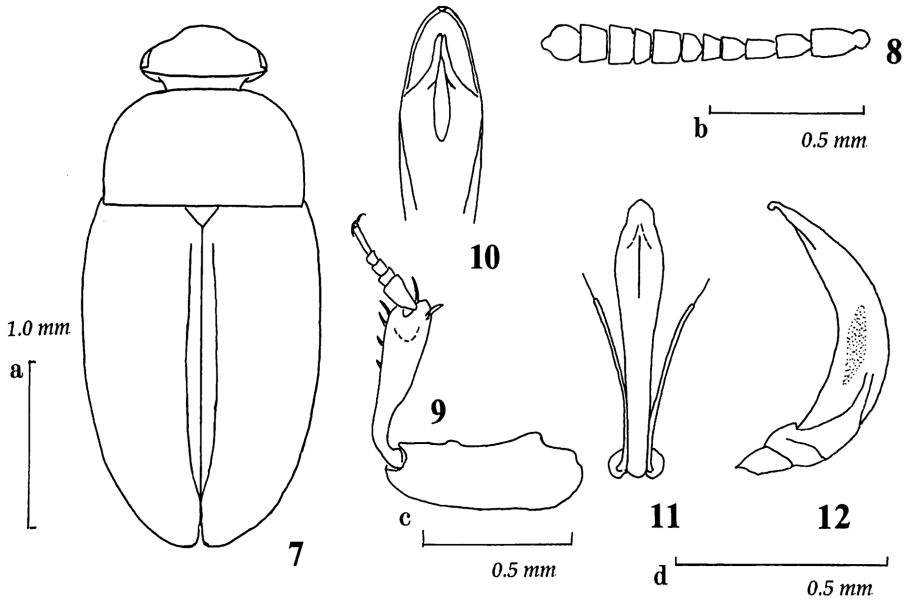
(Figs. 7–12)

Male. Length 3.00–3.30 mm, width 1.53–1.58 mm. Body convex, elliptical, almost wholly clothed with relatively long, yellowish brown adpressed pubescence. Head and pronotum blackish brown; elytra reddish brown with weak opalescent lustre; scutellum and legs reddish brown, though the tarsi are paler; antennal segments I–VI yellowish brown, though the remainder is darker. Ventral surface with thoracic parts blackish brown and abdominal sternites reddish brown.

Head gently convex, uniformly foveolate, the fovea shallow, with microsculpture as that on pronotum, almost straight at front margin, widest at the level of occipital carina (HL : HW=1 : 1.4); labrum transverse, subtrapezoidal, slightly emarginate at front margin, with shallow sparse punctuations; maxillary palpi with last segment 1.5 times as long as the penultimate one; eyes normal, moderately prominent. Antennae normal in shape, hardly reaching pronotal base, with segments IV–V and VII as long as wide, V–X depressed on under side, the depression with granulate punctuations, XI pear-shaped. SMA (length followed by width) in the holotype as follows: I, 0.14, 0.06; II, 0.08, 0.06; III, 0.11, 0.06; IV, 0.08, 0.08; V, 0.08, 0.08; VI, 0.08, 0.09; VII, 0.10, 0.10; VIII, 0.05, 0.10; IX, 0.08, 0.11; X, 0.08, 0.11; XI, 0.13, 0.10.

Pronotum transverse, subtrapezoidal, gently marginate except for distinct front margin, widest before the middle, with base narrower than elytral base, PW/HW 1.60–1.66 (M 1.63), PW/PL 1.44–1.48 (M 1.46); front margin gently arcuate; front angles rounded; sides arcuate; basal margin gently bisinuate in middle portion; hind angles obtuse; surface clothed with punctuations transversely rugose; microsculpture formed by sparse minute punctures, the interspace among them almost glabrous. Scutellum triangular, with granulate punctuations. Hind wings full.

Elytra elongate-ovate, convex, widest at about basal 1/4, EW/PW 1.17–1.22 (M 1.20), EL/PL 2.37–2.56 (M 2.48), EL/EW 1.37–1.47 (M 1.42); sides arcuate, converging apicad, well marginate to apical 1/5, with apices separately rounded; suture entire; sutural striae disappearing at base, gently arcuate outwards; surface clothed with transversely rugose punctures; microsculpture formed by minute punctures; epipleura end-



Figs. 7–12. *Catops chonbukensis* M. NISHIKAWA et Y. B. CHO, sp. nov., from Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea. —— 7, Outline of body, ♂; 8, left antenna, ♂; 9, protibia, profemur and protarsus in ventral view, ♂; 10, median lobe of aedeagus in ventro-apical view; 11, male genitalia in dosal view; 12, same in lateral view (apical 2/3 of right paramere is omitted). Scales: a for Fig. 7, b for Fig. 8, c for Fig. 9, and d for Figs. 11–12. Fig. 10 is a freehand drawing.

ing at about apical 1/5, with punctuations longitudinally rugose. Pygidium weakly punctate, the punctures transversely rugose.

Prosternum closely punctate. Mesosternum rather flat, closely with obliquely rugose punctuations, the punctures fine but distinct. Metasternum with punctuations longitudinally rugose and sparse. Mesepisterna with punctuations as those on mesosternum. Abdominal sternites simple in shape, with transversely rugose weak punctuations.

Legs normal in size, with protibia strongly twisted, expanded towards apex along inner margin from basal 1/3, widest at the apex; protarsus weakly dilated in basal three segments, the first segment 3/5 as wide as the apex of protibia; mesotarsus with the first segment slightly dilated, 1/3 as wide as the apex of mesotibia; profemur with a small tubercle longitudinally elongated on the middle of under side; metafemur smooth on ventral side.

Median lobe of male genitalia hastate, slender, moderate in length (MLL/EL 0.29 in the holotype), slightly dilated outwards in preapical portion and tapered apicad, with apex tuberculate ventrad, well arcuate in lateral view; dorsal surface slightly depressed at the middle of basal half, longitudinally sulcate in preapical portion, and ventral surface with a groove longitudinally lenticular between ligulae, the ligula corniform, stretching apicad. Parameres slender, reaching about apical 1/3 of median lobe. Basal

piece moderate in size.

Female unknown.

Type series. Holotype: ♂, Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea, 18–V–1998, Y. B. CHO leg. Paratypes: 3♂♂, same data as for the holotype.

Notes. The present new species is somewhat similar in aedeagal shape to *Catops bicolor* (PORTEVIN, 1903, p. 329; SZYMCZAKOWSKI, 1964, pp. 228–230, figs. 252–259, as *C. tuberculatus* SZYMCZAKOWSKI, 1961), but is completely different from the latter in the corniform ligulae and in the presence of a groove between the ligulae. These characters are peculiar among the congeners, though the latter feature is similar to that of *C. miensis* NAKANE.

Catops chejuensis M. NISHIKAWA et Y. B. CHO, sp. nov.

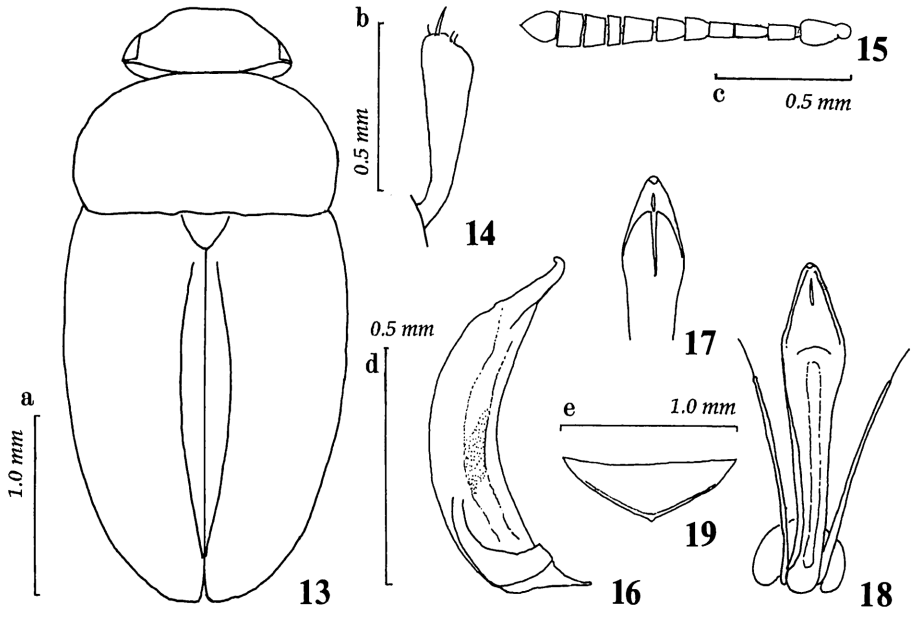
(Figs. 13–19)

Male. Length 3.60 mm, width 1.85 mm. Body elliptical, well convex, almost wholly clothed with relatively long, yellowish brown adpressed pubescence. Colour reddish brown, with the exception of mouth-parts, antennal segments I–VII and abdomen paler; antennal segments VIII–XI and thoracic parts somewhat darker; elytra without opalescent lustre.

Head gently convex, uniformly foveolate, the foveae shallow, with microsculpture formed by closely minute punctures, almost straight at front margin, widest at the level of occipital carina (HL : HW=1 : 1.36); labrum transverse, subtrapezoidal, well emarginate at front margin, closely with fine punctures; maxillary palpi with last segment as long as the penultimate one; eyes normal, moderately prominent. Antennae slender, hardly reaching pronotal base, with segments VIII–X transverse, VIII marginate in both edges, XI acute at the apex, with internal sensory vesicle visible through segments VI–X, respectively. SMA (length followed by width) in the holotype as follows: I, 0.15, 0.10; II, 0.11, 0.06; III, 0.13, 0.05; IV, 0.10, 0.05; V, 0.08, 0.09; VI, 0.08, 0.09; VII, 0.10, 0.11; VIII, 0.05, 0.10; IX, 0.08, 0.10; X, 0.09, 0.11; XI, 0.15, 0.10.

Pronotum transverse, subtrapezoidal, gently marginate except for distinct front margin, widest before the middle, with base almost as wide as elytral base, PW/HW 1.81, PW/PL 1.45; front margin gently arcuate; front angles rounded; sides arcuate; basal margin gently arcuate; hind angles obtuse though distinct; surface clothed with transversely rugose punctuations; microsculpture as that on head. Scutellum triangular, with aciculate punctuations. Hind wings full.

Elytra ovate, well convex, widest at about basal 1/4, EW/PW 1.16, EL/PL 2.16, EL/EW 1.29; sides arcuate, converging apicad, well marginate from base to apical 1/5, with apices separately rounded; suture entire; sutural striae disappearing in basal portions, well arcuate outwards; surface with traces of seven pairs of striae in apical portion, clothed with transversely rugose punctures; microsculpture as that on pronotum; epipleura relatively wide, ending at about apical 1/5, strongly marginate in each ventral margin, with punctuations granulate in basal halves, though punctulate in apical



Figs. 13–19. *Catops chejuensis* M. NISHIKAWA et Y. B. CHO, sp. nov., from Kashi-ri, Pyosun-myun, Cheju-do Is., South Korea. —— 13, Outline of body, ♂; 14, profemur in dorsal view, ♂; 15, left antenna, ♂; 16, male genitalia in lateral view (apical 2/3 of left paramere is omitted); 17, median lobe in ventro-apical view; 18, male genitalia in dosal view; 19, abdominal sternite VI, ♀. Scales: a for Fig. 13, b for Fig. 14, c for Fig. 15, d for Figs. 16–18, and e for Fig. 19.

halves, which are mat. Pygidium subquadrately projected in apical margin, with punctures irregularly granulate.

Prosternum sparsely punctate. Mesosternum rather flat, closely with transversely rugose punctuations, the punctures fine. Metasternum with asperate punctuations. Mesepisterna closely punctate. Abdominal sternites simple in shape, with transversely rugose weak punctuations.

Legs normal in size, with protibia twisted, strongly expanded towards apex along inner margin, widest at the apex; protarsus dilated in basal three segments, the first segment 2/3 as wide as the apex of protibia; mesotarsus with the first segment also dilated, 1/2 as wide as the apex of mesotibia; pro- and metafemora smooth on under side.

Median lobe of male genitalia hastate, somewhat asymmetrical, slender, moderate in length (MLL/EL 0.34 in the holotype), slightly dilated outwards in preapical portion and converging apicad, marginate on each side of apical portions, well arcuate in lateral view, with apex narrowly rounded, weakly tuberculate; dorsal surface with a narrow elliptical fenestra at the middle of apical portion, longitudinally depressed from basal portion to the fenestra; ligulae elongated, with apex narrowly rounded. Parameres slender, reaching about apical 1/3 of median lobe. Basal piece somewhat small in size.

Female. Length 3.35 mm, width 1.75 mm. Similar to male in general appear-

ance. Proportions of body parts as follows: PW/HW 1.75, PW/PL 1.47, EW/PW 1.25, EL/PL 2.53, EL/EW 1.37. SMA (length followed by width) in the allotype as follows: I, 0.13, 0.08; II, 0.09, 0.05; III, 0.10, 0.05; IV, 0.06, 0.05; V, 0.06, 0.06; VI, 0.06, 0.08; VII, 0.08, 0.10; VIII, 0.05, 0.09; IX, 0.08, 0.10; X, 0.08, 0.10; XI, 0.13, 0.10. Abdominal sternite VI transversely pentagonal, with acute apex, VII longitudinally grooved at the middle, emarginate at the apex, VIII roundly and deeply grooved at base. Legs simple in shape.

Type series. Holotype: ♂, Kashi-ri, Pyosun-myun, Cheju-do Is., South Korea, 27–IV–1985, K. S. LEE leg. Allotype: ♀, same data as for the holotype.

Notes. The present new species belongs to the *longulus* group (sensu JEANNEL, 1936, pp. 346–348; SZYMCZAKOWSKI, 1964, pp. 154–156), and is somewhat similar to *Catops angustipes angustipes* PIC (1913, p. 8; SZYMCZAKOWSKI, 1964, pp. 180–183, figs. 262–268) in the shape of the median lobe of the male genitalia, but differs from the latter in having yellowish brown and well convex body, male protibiae strongly expanded along the inner margin, a narrow fenestra present on the median lobe, and the female abdominal sternite VI transversely pentagonal.

Preliminary Check-list of the Subfamily Cholevinae Known from Korea

In the present study, we have recognized the following 13 species belonging to five genera in three tribes of the subfamily Cholevinae from Korea. New collecting data are mentioned. Citations are made from only the references with records from Korea, other than those of the original descriptions of the species concerned.

Tribe Anemadini

Micronemadus pusillimus (KRAATZ, 1877).

Catops pusillimus KRAATZ, 1877, Dt. ent. Z., **21**, p. 108; type area: Japan.

Specimens examined. South Korea: 12 exs., Mt. Whaak-san, Gaknam-myun, Kyŏngsangbuk-do, 12–VI–1998, Y. B. CHO leg. (carrion traps). [New to the fauna of Korea.]

Notes. The present species is widespread in East Asia, though the southern populations are somewhat different from the northern ones in a few morphological points (SZYMCZAKOWSKI, 1964; HAYASHI, 1990). However, the Korean specimens agree with Japanese ones except those from the Ryukyus.

Tribe Cholevini

Sciodrepoides fumatus (SPENCE, 1815).

Choleva fumata SPENCE, 1815, Trans. Linn. Soc. London, **11**, pp. 155–156; type area: England.

Sciodrepoides fumatus: JEANNEL, 1936, Mém. Mus. Hist. nat., Paris, (n. s.), **1**, pp. 338–340 (Pu-ryong, Korea). —— NISHIKAWA, 1983, Check-list Coleopt. Japan, Tokyo, (23), p. 3 (Korea). —— PAIK, 1985,

Corentomon, Suwon, **1**, p. 4 (Korea). —— KIM *et al.*, 1994, Check list Ins. Korea, Seoul, p. 138 (Korea).

Specimens examined. South Korea: 1 ex., Mt. Myongji-san, ca. 350 m in alt., Puk-myun, Kyŏnggi-do, 20~21–VIII–1998, M. NISHIKAWA leg. (carrion trap); 1 ex., Mt. Kyeryong-san, Kongju-shi, Ch'ungch'ŏngnam-do, 20–V–1984, Y. B. CHO leg.; 10 exs., Mt. Whangme-san, Shinwon-myun, Kyŏngsangbuk-do, 30–V–1998, Y. B. CHO leg.; 55 exs., Mt. Whaak-san, Gaknam-myun, Kyŏngsangbuk-do, 12–VI–1998, Y. B. CHO leg.; 1 ex., Mt. Juwhang-san, Chongsong-gun, Kyŏngsangbuk-do, 28~29–VI–1987, Y. B. CHO leg.

Sciodrepoides watsoni watsoni (SPENCE, 1815)

Choleva Watsoni SPENCE, 1815, Trans. Linn. Soc. London, **11**, p. 156; type area: England.

Sciodrepoides Watsoni: JEANNEL, 1936, Mém. Mus. Hist. nat., Paris, (n. s.), **1**, pp. 337–338 (Quelpart Is. [=Cheju-do Is.]).

Sciodrepoides watsoni: SZYMCZAKOWSKI, 1976, Acta zool. cracov., **21**, p. 66 (North Korea: Pakyong Mts. and Hedzu-Sujang san, Kesong-si Prov.; Koson, Kangwŏn-do; Jong-hen, Hamgkyŏngbuk-do). —— NISHIKAWA, 1983, Check-list Coleopt. Japan, Tokyo, (23), pp. 3–4 (Korea). —— PAIK, 1985, Corentomon, Suwon, **1**, p. 4 (Korea). —— LAFER, 1989, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(1), p. 314 (Korean Peninsula). —— KIM *et al.*, 1994, Check list Ins. Korea, Seoul, p. 138 (Korea).

Specimens examined. South Korea: 1 ex., Mt. Yongmun-san, ca. 300–350 m in alt., Yangp'yong-gun, Kyŏnggi-do, 18~19–VIII–1998, M. NISHIKAWA leg. (carrion trap); 1 ex., Mt. Seolak-san, Kangwŏn-do, 6–VII–1987, Y. B. CHO leg.; 1 ex., Mt. Taebaek-san, Kangwŏn-do, 11–VII–1986, Y. B. CHO leg.; 2 exs., Mt. Bomun-san, Taejon-shi, 19–VI–1983, Y. B. CHO leg.; 2 exs., Mt. Kyeryong-san, Kongju-shi, Ch'ungch'ŏngnam-do, 20–V–1984, Y. B. CHO leg.; 6 exs., same locality, ca. 300–400 m in alt., 4~5–V–1999, M. NISHIKAWA leg. (carrion and dung traps); 53 exs., Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, 18–V–1998, Y. B. CHO leg.; 3 exs., Mt. Juwhang-san, Chongsong-gun, Kyŏngsangbuk-do, 28~29–VI–1987, Y. B. CHO leg.; 9 exs., Mt. Bohyun-san, 800 m in alt., Whabuk-myun, Kyŏngsangbuk-do, 24–VI–1998, Y. B. CHO leg.; 1 ex., Mt. Juwhang-san, Chongsong-gun, Kyŏngsangbuk-do, 28~29–VI–1987, Y. B. CHO leg.; 3 exs., Mt. Jiri-san, Gurae-gun, Chŏllabuk-do, 4–VI–1983, Y. B. CHO leg.; 1 ex., Mt. Mireuk-san, Iksan, Chŏllabuk-do, 4–VI–1988, Y. B. CHO leg.; 1 ex., Mt. Taegum-san, Keoje-do Is., Kyŏngsangnam-do, 1~3–IX–1997, Y. B. CHO leg.

Notes. The present species has been known as a polymorphic one widespread in the Holarctic Region (cf. JEANNEL, 1936; POOLE & GENTILI, 1996). NISHIKAWA (1997) recorded it from the Tsu-shima Islands lying between the Korean Peninsula and the Japanese Islands, and made a brief discussion on the morphological characteristics of the Tsu-shima specimen, though an additional specimen after JEANNEL (1936) is still unknown from Cheju-do Island.

Catops angustipes angustipes PIC, 1913

Catops angustipes PIC, 1913, Mél. Exot.-Ent., (6), p. 8; type locality: Nankin [Kiangsu Prov., E China].

Catops angustipes: SZYMCZAKOWSKI, 1976, Acta zool. cracov., **21**, p. 69 (North Korea: Pyongang [=Phe-

nian] Prov.; South Korea: Seong-gul Cave, Sinchang-ri, Han'gyeong-myun, Cheju-do Is.). —— NISHIKAWA, 1983, Check-list Coleopt. Japan, Tokyo, (23), p. 4 (Korea). —— LAFER, 1989, Opred. Nasek. Dal'nego Vostoka SSSR, **3**(1), p. 316 (Korean Peninsula). —— KIM *et al.*, 1994, Check list Ins. Korea, Seoul, p. 138 (Korea).

Specimens examined. South Korea: 1 ex., Jochiwon, Ch'ungch'ŏngbuk-do, 2–V–1983, S. M. KIM leg.; 3 exs., Mt. Kyeryong-san, Kongju-shi, Ch'ungch'ŏngnam-do, 5–V–1983, Y. B. CHO leg.; 1 ex., Shinjin-do Is., Chungnam, Taean-gun, Ch'ungch'ŏngnam-do, 1–V–1998, Y. B. CHO leg.; 2 exs., Mt. Duryun-san, Haenam-myun, Chŏllanam-do, 23–IV–1983, Y. B. CHO leg.; 2 exs., Ju-do Is., Wando-gun, Chŏllanam-do, 21–IV–1983, Y. B. CHO leg.

Catops angustitarsis angustitarsis (REITTER, 1896)

Sciodrepa angustitarsis REITTER, 1896, Wien. ent. Ztg., **15**, pp. 66–67; type areas: Karakorum, Northern Mongolia.

Specimens examined. South Korea: 1 ex., Mt. Juwhang-san, Chongsong-gun, Kyŏngsangbuk-do, 28~29–VI–1987, Y. B. CHO leg.; 1 ex., Mt. Palgong-san Provincial Park near Gacbawi, Taegu-shi, Kyŏngsangbuk-do, 13–VI–1998, Y. B. CHO leg.; 1 ex., Mt. Palgong-san, Taegu-shi, Kyŏngsangbuk-do, 18–VI–1984, Y. B. CHO leg. [New to the fauna of Korea.]

Catops chejuensis M. NISHIKAWA et Y. B. CHO, sp. nov.

Catops chejuensis M. NISHIKAWA et Y. B. CHO, sp. nov.; type locality: Kashi-ri, Pyosun-myun, Cheju-do Is., South Korea.

Catops chonbukensis M. NISHIKAWA et Y. B. CHO, sp. nov.

Catops chonbukensis M. NISHIKAWA et Y. B. CHO, sp. nov.; type locality: Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea.

Catops coreanus M. NISHIKAWA et Y. B. CHO, sp. nov.

Catops coreanus M. NISHIKAWA et Y. B. CHO, sp. nov.; type locality: Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, South Korea.

Catops lydiae IABLOKOFF-KHNZORIAN, 1970

Catops lydiae IABLOKOFF-KHNZORIAN, 1970, Dokl. Akad. Nauk Armyanskoi SSR, **51**, p. 306, figs. 1 b, g, e, z, i; type locality: Mt. Chekhova near Yuzhno-Sakhalinsk, Sakhalin Is., Russia.

Catops alpinus: SZYMCZAKOWSKI, 1976, Acta zool. cracov., **21**, p. 66 (North Korea: Sam-zi-yan, Chann-Pay Plateau, Yanggang-do). [Nec GYLLENHAL, 1827.]

Specimens examined. South Korea: 2 exs., Mt. Seolak-san, Kangwŏn-do, 6–VII–1987, Y. B. CHO leg.; 13 exs., Mt. Odae-san, Kangwŏn-do, 14–VIII–1987, Y. B. CHO leg.; 4 exs., Mt. Taebaek-san, Kangwŏn-do, 11–VII–1986, Y. B. CHO leg.; 1 ex., Mt. Kyeryong-san, Kongju-shi, Ch'ungch'ŏngnam-do, 20–V–1984, Y. B. CHO leg.; 7 exs., same locality, ca. 300–400 m in alt., 4~5–V–1999, M. NISHIKAWA leg. (carrion and dung traps); 1 ex., Mt. Palgong-san, Taegu-shi, 18–VI–1984, Y. B. CHO leg.; 1 ex.,

Mt. Bade-san, Youngdeok-gun, Kyŏngsangbuk-do, 19~20–VI–1997, Y. B. CHO leg.; 1 ex., Mt. Bohyun-san, Whabuk-myun, Youngchon, Kyŏngsangbuk-do, 31–VIII–1998, Y. B. CHO leg.; 8 exs., Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, 18–V–1998, Y. B. CHO leg.; 2 exs., Mt. Jiri-san, Jungsan-ri, Kyŏngsangnam-do, 20–VIII–1984, Y. B. CHO leg.; 1 ex., same locality, 2–X–1987, Y. B. CHO leg.; 2 exs., Mt. Jiri-san, Gurae-gun, Chŏllanam-do, 4–VI–1983, Y. B. CHO leg. [New to the fauna of Korea.]

Notes. *Catops alpinus* GYLLENHAL was recorded by SZYMCZAKOWSKI (1976) from the Chann-Pay [=Ch'ang-pai] Mountains lying along the Chinese border was based on only a single female specimen. Judging from its preference to tundra habitat (KOZMINYKH & ESYUNIN, 1994), the type area and the presence of a Canadian subspecies, this species shows a circumpolar distribution (cf. JEANNEL, 1936; SZYMCZAKOWSKI, 1964; GIACHINO, 1988; PERREAU, 1990). In addition, the present species was originally described from Sakhalin Island and LAFER (1989) recorded it from a wide area of the Russian Far East, and also from South Korea by NISHIKAWA and LAFER (2000). Thus, the record of *C. alpinus* from the Ch'ang-pai is doubtful at present, and may safely be considered to be that of *C. lydiae* (cf. NISHIKAWA & LAFER, *loc. cit.*).

Catops miensis miensis NAKANE, 1956

Catops miensis NAKANE, 1956, Scient. Rept. Saikyo Univ., (A), **2**, pp. 159–160, pl. 1, figs. 4–7; type locality: Hirakura, Ise [Mie Pref.], Honshu, Japan.

Specimens examined. South Korea: 1 ex., Mt. Kyeryong-san, ca. 300 m in alt., Kongju-shi, Ch'ungch'ŏngnam-do, 4~5–V–1999, M. NISHIKAWA leg. (dung trap); 1 ex., Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, 18–V–1998, Y. B. CHO leg.; 1 ex., Donnaeco, Sogwipo-shi, Cheju-do Is., 5–XI–1985, K. S. LEE leg. [New to the fauna of Korea.]

Notes. The Korean specimens are similar to those of Kyushu, Japan, in morphological features as was mentioned in NISHIKAWA (1992). The other subspecies, *C. miensis formosensis* Y. HAYASHI (1988, pp. 112–113, figs. 20–23), has been known to be restricted to the upper elevation of the high mountains of Taiwan. The present unexpected discoveries are interesting from the zoogeographical viewpoint.

Catops montanus SCHWEIGER, 1956

Catops luteipes montanus SCHWEIGER, 1956, Beitr. Ent., **6**, p. 538, fig. 4 a–b; type locality: Kuatun, Fukien (2,300 m) [Fujian Prov., SE. China].

Catops montanus: SZYMCZAKOWSKI, 1976, Acta zool. cracov., **21**, p. 69 (North Korea: Sam-il po, Kum-gang san, Kangwŏn-do).

Specimens examined. South Korea: 3 exs., Mt. Kyeryong-san, ca. 300–400 m in alt., Kongju-shi, Ch'ungch'ŏngnam-do, 4~5–V–1999, M. NISHIKAWA leg. (carrion and dung traps); 4 exs., Mt. Unjang-san, Jinan-gun, Chŏllabuk-do, 18–V–1998, Y. B. CHO leg.

Catopodes fuscifrons (KRAATZ, 1877)

Catops fuscifrons KRAATZ, 1877, Dt. ent. Z., **21**, p. 108; type area: Japan.

Catopodes fuscifrons: SZYMCZAKOWSKI, 1976, Acta zool. cracov., **21**, p. 70 (North Korea: Phjongjang [=P'yongyang] Prov.). —— NISHIKAWA, 1983, Check-list Coleopt. Japan, Tokyo, (23), p. 6 (Korea). —— PAIK, 1985, Corentomon, Suwon, **1**, p. 4 (Korea). —— KIM *et al.*, 1994, Check list Ins. Korea, Seoul, p. 138 (Korea).

Specimens examined. South Korea: 1 ex., Mt. Odae-san, Pyungchang-gun, Kangwŏn-do, 14–VIII–1987, Y. B. CHO leg.; 4 exs., Mt. Kyeryong-san, ca. 300 m in alt., Kongju-shi, Ch'ungch'ŏngnam-do, 4~5–V–1999, M. NISHIKAWA leg. (carrion traps); 1 ex., Mt. Bohyun-san, Whabuk-myun, Kyŏngsangbuk-do, 31–VIII–1998, Y. B. CHO leg.; 1 ex., Mt. Jiri-san, Jungsan-ri, Kyŏngsangnam-do, 2–X–1980, Y. B. CHO leg.

Tribe Leptodirini

Coreobathyscia solivaga SZYMCZAKOWSKI, 1975

Coreobathyscia solivaga SZYMCZAKOWSKI, 1975, Annls. Spéléol., **30**, pp. 464–466, figs. 1–9; type locality: Kungkolgul Cave, South Korea.

Coreobathyscia solivaga: KIM *et al.*, 1994, Check list Ins. Korea, Seoul, p. 139 (Korea). —— NEWTON, 1998, Phylog. Evol. Subterranean Endogean Cholevidae, Torino, p. 115 (Korea).

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要　　約

西川正明・趙　永福：韓国産*Catops*属（甲虫目タマキノコムシ科チビシデムシ亜科）の3新種，および朝鮮半島産同亜科甲虫類の暫定目録．—— 韓国からチビシデムシ属の3新種，*Catops coreanus* sp. nov., *C. chonbukensis* sp. nov.および*C. chejuensis* sp. nov.を命名して記載した．さらに，現在までに朝鮮半島から知られている同亜科のものを13種と認め，その目録を作成した．なお，目録中，クリバネチビシデムシ*Micronemadus pusillimus* (KRAATZ), ルイスチビシデムシ*Catops angustitarsis angustitarsis* REITTER, シベリアチビシデムシ*C. lydiae* IABLOKOFF-KHNZORIAN, そしてコクロチビシデムシ*Catops miensis miensis* NAKANEは同地域から初めて記録される．

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