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Buprestidae (Coleoptera) collected by the Természettudomány Múzeum (Budapest) expeditions in Korea between 1970 and 1991

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Introduction

The **Buprestidae LEACH** of East Asia are very unevenly studied: SAUNDERS, LEWIS, and especially the array of modern native entomologists (KUROSAWA, TÔYAMA, AKIYAMA, OHMOMO, HATTORI &c.) have made the degree of knowledge of Japanese fauna comparable to that of Europe or North America, informations on the jewel-beetles of Siberian Far East have been collected by many Russian and foreign students since early XIX c. and summarized by RICHTER (РИХТЕР 1949, 1952) and ALEXEEV (АЛЕКСЕЕВ 1989), relatively well known are also taxonomical or biogeographical relations in many subgroups inhabiting Indochina and Formosa, while on the other hand from China (especially northern part) and Korea hardly more than occasional scattered faunistic observations are available. As regards Korea, the distribution atlas of KIM (1978) contains data of just 14 spp. of **Buprestidae LEACH**, whereas the only modern comprehensive elaboration I am aware of - LEE & AHN (2012) - has remained unaccessible to me, and anyway apparently concerns but a single (albeit large) genus Agrilus CURT.; the anonymous, uncommented, unpublished and based on unknown data "cafius.wixsite" listing ca. 100 spp. as "korean-beetles Buprestidae", cannot be considered a reliable source of information, so the outlines of general geographical distribution of most species must have been mainly accepted from the Palaeactic catalogue (KUBÁŇ 2006, 2016) whose reliability is, unfortunately, also in many points questionable [and further undermined by deceitfully selective treatment of published data - see below under Remarks to Ovalisia nobilissima bellula (LEW.)]. The aim of the present publication is to supplement the knowledge of the Korean buprestidofauna with concrete documented data based on the material collected between 1970 and 1991 by the expeditions of the Természettudományi Múzeum (Natural Science Muzeum), Budapest. It contains only 23 species - in the collections not specially focused on jewel-beetles this group is almost always underrepresented... - but including one new to science, one hitherto not reported from Korea, and several whose taxonomic relations and distribution remain poorly known. Naturally no general revisionary studies have been (or could have been) attempted, so I have only made some preliminary remarks where they seemed apropriate. Classification has been based on the last reliable comprehensive reassessment (HOŁYŃSKI 1993) – the problems with later systems (KOLIBÁČ 2000; BELLAMY 2003), in my opinion partly misconceived and generally unacceptable, have been extensively discussed elsewhere (VOLKOVITSH & BÍLÝ 2001; HOŁYŃSKI 2002, 2003), and partial rearrangements (*e.g.* BÍLÝ 2000; KUBÁŇ & *al.* 2000) usually suffer from the same or similar deficiencies.

Conventions and abbreviations

Like in my other publications (unless "corrected" by editors...), I follow the very useful conventions of applying (of course, except wordly citations, where the original form must be retained) SMALL CAPS to *all* [irrespective of context and full *vs.* abbreviated version: inconsistent use deprives the display of any sense!] personal family- (*not* given-) names, *italicizing* species- and genus-group names (as well as citations and words in languages different from that of the main text), and writing the suprageneric taxon-names in **Bold** [the latter is not a generally accepted custom, but is often important, as some of such names (*e.g.* of the subtribes **Buprestina LEACH**, **Melobasina Bí**Lý or **Coraebina BED.**) are (or may easily become) "homonymous" (but valid!) with generic or subgeneric ones (*Buprestina OBB.*, *Melobasina KERR.*, *Coraebina KERR.*)]: we must make possibly unequivocal what we have in mind, and possibly easy for the reader to "optically" spot the "wanted" name in the (especially longer) text!

Labels of the type-specimen are quoted as exactly as possible, including *italics* and *handwriting* (both represented in my text by *italics*) and CAPITAL LETTERS. Determination- and type-designation labels added by me are not cited: the former is white "*Agrilus merkli HOL*., det. R. HOŁYŃSKI" with year of determination written vertically on the left side; the latter red ["*Agrilus merkli HOLYŃSKI*, HOLOTYPE"]. For the other (non-type) specimens only abbreviated contents (locality, elevation, date) of labels, length and width of body, and depository (TTM or RBH – the latter with specimem-identifying signature) is quoted. As there was no consistency between collectors in spelling of Korean locality-names, I have quoted them in versions accepted in the cartographic program Encarta and/or other available maps, giving the originally (on the particular label) used spelling in double parentheses within square brackets [""] if significantly different or in single parentheses ["] if not identified. The collectors in particular years were as follows:

1970: Dr. S. MAHUNKA, Dr. H. STEINMANN

- 1971: S. HORVATOVICH, J. PAPP
- 1975: J. PAPP, A. VOJNITS
- 1977: O.G. DELY, Á. DRASKOVITS
- 1978: A. VOJNITS, L. ZOMBORI
- 1979: H. STEINMANN, T. VÁSÁRHELYI
- 1980: G. TOPÁL, L. FORRÓ
- 1982: L. FORRÓ, L. RONKAY
- 1985: A. VOJNITS, L. ZOMBORI
- 1988: O. MERKL, G, SZÉL

1991: Z. MÉSZÁROS, L. ZOMBORI

Collections:

RBH = Roman B. HOŁYŃSKI, Milanówek, POLAND;

TTM = Természettudományi Múzeum, Budapest, HUNGARY

Terms and abbreviations used in description:

Midlateral = placed between midline and lateral margin, at *ca*. equal distance from both

Convergent/divergent (unless expressly stated otherwise) = towards apex or (front) downwards

- L = lengthW = width
- MW = maximum width
- BW = basal (upper in case of front) width
- AW = apical (lower in case of front) width
- HW = width of head with eyes
- VW = width of vertex between eyes
- \approx = approximately equal to
- ϕ = sex unknown

List of collected species

BUPRESTINAE LEACH BUPRESTINI LEACH DICERCINAGISTL Dicerca ESCH. Dicerca (s.str.) furcata (THB.) aino Lew.

Material examined:

Yanggang-do: Samjiyŏn ["Ryanggang Prov., Samjiyon"], 1000 m., 26 VI 1988 [12: 18×6 mm. – TTM]

Remarks:

Described from Japan as separate species, some later authors (*e.g.* RICHTER 1952) followed this interpretation, while others considered it a Japanese subspecies (BELLAMY 2008) or simple synonym (HOŁYŃSKI 1999, 2005; KUBÁŇ 2006) of *D. furcata (THB.)*; the situation has been partly clarified by HASS & KUBACH (2015), showing that Siberian specimens do not significantly differ from the Japanese, being instead clearly (at least in the armature of male mesotibiae) distinguishable from those inhabiting Europe, *i.e.* 1) *D. aino LEW.* is indeed taxonomically distinct from *D. furcata (THB.)*; 2) *D. aino LEW.* occupies the [near?] entire Asian part of the distribution area of *D. furcata (THB.) s.l.*; 3) *D. acuminata (PALL.)* is a senior (but preoccupied) synonym of *D. aino LEW.* rather than of *D. furcata (THB.).* An open question remains the nature of the border areas (S-Ural, SW-Kazakhstan): are the two taxa fully allopatric? parapatric or overlapping without intergradation? or do they form morphologically intermediate populations? For the moment no such information is known to me, so I tentatively consider the eastern (inhabiting S-Siberia, N-Mongolia, Manchuria, Korea and Japan) form as a subspecies of *D. furcata (THB.).*

Ovalisia KERR.

Scintillatrix OBB. Ovalisia (Scintillatrix) nobilissima (MNNH.) bellula (LEW.)

Material examined:

Pyŏngyang City: 'Daesong-san', 1 VI 1985 [1♂: 9.5×3.2 – TTM]

Remarks:

Poorly differentiated taxon of doubtful validity: RICHTER 1952 and ALEXEEV 1989 (as *Poecilonota suvorovi OBB.*) consider it a separate species, AKIYAMA & OHMOMO 1997 as a subspecies of "*Poecilonota*" pretiosa MNNH., KUBÁŇ 2006 and BELLAMY 2008 as that of "*Lamprodila*" nobilissima (MNNH.); in my opinion it should be best treated as junior synonym: characters used in keys [RICHTER 1952; ALEXEEV 1989] are unconvincing (individually variable and/or difficult to interpret), and also the studied specimen seems somewhat intermediate. Having, however, no sufficient material to reliably solve the question I must tentatively accept the currently prevalent opinion. The geographical distribution of the subspecies includes northeasternmost China, Manchuria, Korea, Ussuriland and northern Japan.

The generic epithet *Lamprodila "MOTSCH.*" [based in fact on vague incidental formulation in ANONYM (1859)] is so unbelievable misconception that I am not able to understand how could it ever come to the mind of a serious taxonomist to introduce such name – evidently based on some mistake and not even approaching the fulfillment of virtually any criterion of nomenclatural availability (see HOŁYŃSKI 2011b for details) – as possibly valid! And nevertheless it has been uncritically followed by several authors simply because of the popularity of two recent catalogues: Palaearctic (KUBÁŇ 2006, in which the "resurrection" had been unfortunately proposed) and World (BELLAMY 2008, whose author expressedly

admitted to have always indiscriminately accepted the last published – in this case KUBÁŇ's – suggestion) - a nice example of the dangers connected with publication of new taxonomic/nomenclatural acts in compilatory works like catalogues (cf. MÜHLE's remarks in Buprestis newsletter 55) and with uncritical acceptation of such works as reliable sources of taxonomic/nomenclatural information (HOŁYŃSKI 2017: 68)! By the way, the trustworthiness of the - potentially so valuable - Palaearctic catalogue is even further undermined by KUBÁŇ K's selective elimination of "inconvenient" publications: e.g. "Changes proposed by Holyński (2006 [in fact published before 27 XII 2005!], 2009, 2010 [this - HOŁYŃSKI 2011a - in turn, appeared only in January 2011!], 2011, 2014b) based on his MICSEQ method of phylogenetic analysis (Hołyński 2001b) are not followed in this catalogue" - KUBÁN 2016: 27; leaving aside the reference to "MICSEQ method of phylogenetic analysis", what is both irrelevant and complete nonsense [none of my taxonomic decisions or suggestions has ever been based on any – MICSEQ or other – phylogenetic analysis: indeed, I have devoted several special publications to argue that genealogical tree (the result of phylogenetic analysis) is one thing, classification (resulting from taxonomical considerations) is another, and they (like any pair of serious hypotheses) must of course not be mutually contradictory, but are *different* and should be established *independently*!], there is evidently not a mere accident that at least three of my four "not followed" papers contain critique of some strange taxonomic statements proposed by KUBÁŇ (two of them - HOŁYŃSKI 2011a, b - concerning just the "Lamprodila Motsch.")!

BUPRESTINA LEACH Buprestis L. Gymnota GISTL Buprestis (Gymnota) strigosa GEBL.

Material examined:

Yanggang-do ["Ryang-gang Prov."]: Chann-Pay plateau: road to Mt. Pektusan: 24 km. NW Samjiyŏn ["San-zi-yan"], 2000 m., 24 VII 1975 [1♂: 13×5 – TTM]

Yanggang-do ["Ryang-gang Prov."]: 'Konchang', 800 m., 30 VI 1988 [1♀: 13.5×5 – TTM] Paektu-san: *ad* 'Mupo' ["Mt. Pektusan, environs Mupo"], 20 VII 1977 [1♀: 13.5×5 – TTM]

Remarks:

Widely distributed along the boreal coniferous forest (taiga) belt from northeastern areas of European Russia to Kamchatka, Ussuriland, Manchuria and Korea.

Ancylocheira ESCH., frequently used as the subgenus name, is in fact a junior objective homonym of Buprestis L.: BELLAMY (2008) considers "Ancylocheira [sic!] rustica Linnaeus 1758" the type-species "(fixed by subsequent designation: Kubáň 2006:51)", but earlier Buprestis octoguttata L. had been selected by RICHTER (1952); KUBÁŇ (2006) groundlessly dismissed RICHTER's designation as "incorrectly stated", but had not given – and I have not found – any justification for such opinion! ["69.1.1. In the absence of a prior type fixation for a nominal genus or subgenus, an author is deemed to have designated one of the originally included nominal species as type species, if he or she states (for whatever reason, right or wrong) that it is the type or type species, or uses an equivalent term, and if it is clear that that author accepts it as the type species." – ANONYM (ICZN) 1999].

Buprestis (Gymnota) haemorrhoidalis HBST. coreana OBB.

Material examined:

Kangwŏn-do: Kŭmgang-san: Onjŏng-ri, 400 m., 21 VI 1988 [19:15×5.5 – TTM]

Remarks:

The relations between eastern-palaearctic forms of *B. haemorrhoidalis HBST. s.l.*, as well as their validity, status, or nomenclature, remains far from convincingly resolved. Of the

two taxa of specific/subspecific rank reported from Korea one, described by FLEISCHER (1887) from "Nikolaevsk in Ostsibirien" (Amur estuary) as "eine interessante locale Rasse" [i.e. effectively a subspecies] "Buprestis haemorrhoidalis var. sibirica m.", and inhabiting the vast area extending from Kirghizia to Kamchatka, Ussuriland, Manchuria and northern Korea; the other, considered by its author originally as separate species "Buprestis coreana m. n. sp." (OBENBERGER 1917a - "Patria: Korea; Soeul. China") and then (OBENBERGER 1941) as a mere aberration of B. japanensis SND., has been synonymized by KUBÁN (2006) with the latter (itself treated as a subspecies of *B. haemorrhoidalis* HBST.) but - as observed by RICHTER (1952) – it is more closely related to B. h. "sibirica FL.". There are nomenclatural problems with the latter: Buprestis sibirica FLEISCHER 1887 is a junior primary homonym of Buprestis sibirica FABRICIUS 1781 [itself a junior synonym of Cyphosoma tataricum (PALL.)]; "Buprestis haemorrhoidalis brunneola OBENBERGER 1919", proposed by KUBÁŇ (2006) as a replacement name, had in fact been described as an evidently infrasubspecific (so nomenclatorily unavailable) colour variety ("Buprestis coreana var. brunneola n. var."), and no other applicable synonym seems to exist - except, perhaps, B. h. coreana OBB.: the differences between them, and consequently their validity as separate taxa, are not quite clear. The clarification of this question remains, however, beyond the scope of the present contribution, the more so that the specimen from Onjong-ri matches anyway better the characters attributed to *B*. *h*. *coreana OBB*.

ANTHAXIINI C.G. ANTHAXIINA C.G. Anthaxia ESCH. M e l a n t h a x i a RICHT. Anthaxia (Melanthaxia) reticulata MOTSCH. s.str.

Material examined:

Yanggang-do ["Ryang-gang Prov."]: Chann-Pay plateau: road to Mt. Pektusan: 24 km. NW Samjiyŏn ["San-zi-yan"], 2000 m., 24 VII 1975 [5ø: 4.7×1.8; 4.7×1.9, 5.2×2.2; 5.6×2.3; 5.6×2.5 – TTM]

Yanggang-do ["Ryang-gang Prov."]: 'Chann-Pay plateau': road to Paektu-san: 24 km. NW Samjiyŏn ["San-ziyan"], 2000 m., 24 VII 1975 [1ø: 4.2×1.7 – RBH: BPley]

Yanggang-do ["Ryang-gang Prov."]: Samjiyŏn ["San-zi-yan"], 1700 m., 24-25 VII 1975 [1ø: 4.7×2.1 – RBH: BPlfa]

Yanggang-do ["Ryang-gang Prov."]: Samjiyŏn ["San-zi-yan"], 1000 m., 26 VI 1988 [1ø: 4.4×1.7 – TTM] Yanggang-do ["Ryang-gang Prov."]: Samjiyŏn ["San-zi-yan"], 1000 m., 26 VI 1988 [1ø: 4.8×2.1 – RBH: BPlfb] Yanggang-do: 'Konchang', 800 m., 30 VI 1988 [1ø: 5.3×2.2 – TTM]

Remarks:

Eastern Siberian species, occurring from the Baikal lake to the Pacific coast from the mouth of Amur (type locality) to Manchuria and northern Korea; on Hokkaido replaced by *A*. *r. aino KUR*., from Honshu two other forms of uncertain validity have been described.

Cratomerella RICHT. Anthaxia (Cratomerella) psittacina HEYD.

Material examined:

Kŭm-gang san: 'Rükhaam', 10-12 VII 1977 [1ø: (damaged) – TTM]

Kŭm-gang san: 'Rükhaam', 10-12 VII 1977 [1³: 4.2×1.4 – RBH: BPlez]

Kangwŏn-do: Kŭm-gang san: Onjŏng-ri, 400 m., 22 VI 1988 [1ø: 4.4×1.5 –TTM]

Kangwŏn-do ["Gangvon Prov."]: Kŭm-gang san: Onjŏng ["Ondzong"] distr.: 'Mandzang-tae', 600-650 m., 6 VIII 1975 [1ø: 5.0×1.7 – TTM]

Kangwŏn Pr.: Kŭm-gang san: Samil-po, 18 VI 1988 [3ø: 3.7×1.3; 4.3×1.5; 4.5×1.6 – TTM]

Kangwŏn Pr.: Kŭm-gang san: Samil-po, 18 VI 1988 [1ø: 3.8×1.3 – RBH: BPlf-]

Remarks:

Distribution area restricted to Ussuriland, Manchuria and Korea. BíLÝ (1993) considered it a subspecies of *A. proteus SND.*, but ten years later (BíLÝ & SVOBODA 2003) not only accepted its specific status but described a new taxon from southern China (prov. Hunan) as *A. psittacina nigrifrons B.S.* (judging from the description this also seems rather a separate species).

AGRILINAE CAST. AGRILINI CAST. A G R I L I N A C A S T. Agrilus CURT. J e n d e k i l u s sg. n. Type species: Agrilus plasoni OBENBERGER 1917b: 212-213

General characteristics: Moderately elongated, medium sized representatives of the genus; elytra black or green, pronotum concolorous or (in most cases) contrastingly cupreous; pubescent ornamentation of elytra consists of linearly elongate (usually partly inconspicuous) perisutural stripes between basal quarter and midlength, much wider and more contrasting but short spot at apical fourth, and sometimes more or less discernible one at apex; ventral side with white pubescent spots at least on first pleurite and sides of 3. and 4. sternites; otherwise elytral and ventral pubescence short, dark, recumbent. Front more or less convex, depressed along midline, subparallelsided, *ca.* as wide as long; oculofrontal margins slightly converge on vertex: V:H \approx 0.5-0.6. Pronotum with more or less distinct rounded prescutellar depression which rarely extends to or slightly beyond midlength, anterior half of disk regularly convex; prehumeral carinula very fine, running close to lateral margin, converging with it at midlength; submarginal and marginal carinae separate all along. Lateroapical angle of each elytron prolonged into short spine or at least sharply acute, sutural angle right or obtuse. Gular lobe emarginate or subtruncate; prosternal process wide, broadly tricuspidate at apex; no pygidial mucro. Basal joint of metatarsi subequal to following three.

Remarks: The subgenus was distinguished by JENDEK (2001) as "Agrilus plasoni species group"; it is characterized by wide front and vertex, weak median depression on head and pronotum, very fine (often hardly discernible) prehumeral carinulae, distinctive pattern of pubescent spots, lateroapically [sub-]spinose elytra, lack of pygidial mucro, short 1. joint of metatarsi, &c. Named in honour of Eduard JENDEK, the main authority in the taxonomy of Palaearctic and Indo-Pacific Agrilus CURT.

Included species: A. chujoi KUR., A. plasoni KUR., A. darjiling JD. (available for examination to me), and A. huashanus JD., A. diaolin JD., A. somnon JD., A. dichrosomus OBB., A. pubornatus JD., A. baoloc JD. (teste JENDEK 2001); I tentatively (it remains unknown to me in nature) exclude A. hasegawai KUR. whose pronotal structure, elytral apices, pubescent pattern &c. seem to suggest that it does not have much in common with this group. My specimen of A. darjiling JD. is definitely darker (head and pronotum dull cupreous, elytra very dark green with black perisutural stripe) than types as illustrated and described by JENDEK (2001), but in his (unfortunately too brief...) diagnosis I do not find any other difference, so – despite geographical remoteness (Tonkin: Hoa Binh, where rather A. plasoni OBB. could be expected) – it seems to represent an individual variety or at most a subspecies of A. darjiling JD.

Geographical distribution: South and east Asia from easternmost India through Indochina and southeastern China to Formosa and Korea.

Agrilus (Jendekilus) chujoi KUR.

Material examined:

Kangwŏn-do: Kŭm-gang san, 12 VII 1991 [1♂: 6.1×1.6 [TTM] Kangwŏn-do: Kŭm-gang san, 12 VII 1991 [1♀: 6.7×1.8 [RBH: BPlfd] Kangwŏn-do: Kŭm-gang san: 'Rükhaam', 10-12 VII 1977 [1♂: 5.6×1.4 – TTM]

Remarks:

Near-endemite of Korea, otherwise known only from immediate vicinities: Tsushima I. (the type-locality) and southernmost Manchuria (Liaoning prov.).

Quercagrilus ALEX. Agrilus (Quercagrilus) ribbei KSW. s.str.

Material examined:

Pyŏngyang City: 'Daesong-san', 16 VI 1988 [1ø: 7.1×1.7 – TTM]

Remarks:

Eastern Asia from Baikal Lake to Japan and from Stanovoy Range and Sakhalin to Yang-tse-Kiang and Kyûshû. Mostly reported as the continental subspecies (under the names *A. t. asiaticus KERR*. or *A. t. corax OBB*.) of Japanese *A. tibialis LEW*., but KUROSAWA (1976) has proven that *A. asiaticus KERR*. is a different, unrelated species, and JENDEK (2003) established the synonymy of *A. corax OBB*. with *A. ribbei KSW*.; he treated *A. tibialis LEW*. as another synonym, but in my opinion it is rather insular, usually blue, subspecies of the continental, mostly brownish, *A. ribbei KSW*.: the colour differences are almost diagnostic – rare exceptions being fully consistent with subspecific status, *i.e.* unfinished process of speciation (incomplete lineage sorting).

Agrilus (Quercagrilus) ussuricola OBB.

Material examined:

Kangwŏn Pr.: Kŭmgang-san: Samil-po, 29 V 1970 [13: 4.5×1.2 – TTM]

Remarks:

Known from Siberian Far East (south of Amur mouth), Manchuria, Korea, Tsushima, Kyûshû.

Agrilus (Quercagrilus) friebi OBB.

Material examined:

Kangwŏn-do: Kŭm-gang san: 'Rükhaam', 10-12 VII 1977, on grasses [1♀: 4.5×1.2 – TTM]

Remarks:

Widely distributed from Tuwa through Mongolia and Manchuria to Ussuriland, Korea, N-China and main Japanese islands.

Robertius THY. Agrilus (Robertius) sibiricus OBB.

Material examined:

Yanggang-do ["Ryang-gang Prov."]: Samjiyŏn, 1000m., 26 VI 1988 [1ø: 5.7×1.5 – TTM]

Remarks:

Distribution restricted to Ussuriland, Manchuria and Korea; Japanese A. *fukushimensis* JD., described (JENDEK 1994) as subspecies of A. *sibiricus OBB.*, is in my opinion a separate species.

X e r a g r i l u s A L E X. Agrilus (Xeragrilus) pekinensis OBB.

Material examined:

Pyŏngan-namdo ["Prov. South Pyongan"]: 50 km. N Pyŏngyang: 'Chang-lyong san', 13 VIII 1971 [1♂: 7.9×2.1 – TTM]

Remarks:

Common species, widely distributed from Kazakhstan to Korea and from Siberian Far East to S-China; *A. p. accolus JD.* is probably only a variety: the quoted (JENDEK 1995, JENDEK & GREBENNIKOV 2011) differences (*"body more elongate and distally more flattened"*) do not seem particularly convincing, and the "checkerboard" pattern of respective distributions in China (*A. pekinensis OBB. s. str.*: Pekin, Szensi, Chekiang; *A. p. accolus JD.*: Anhuei, Szechuan, Yunnan) looks rather weird for subspecies.

Dentagrilus ALEX. Agrilus (Dentagrilus) merkli n.sp.

Material examined:

Holotype: "KOREA: Prov Kengi: Bagyon san, San-chon tong about 20 km SE from Kaesong; 8 June, 1970" "Hung. Zool. Exp. I. in Korea. No. 112., leg: Dr. S. Mahunka et Dr. H. Steinmann" "Agrilus pooli Théry, Alexeev det." [♀ (TTM)]
Additional material: none

Characters

Holotype: Female (but see **Remarks**!). Small $(3.9 \times 1.1 \text{ mm.})$, robustly built, convex; uniformly blackish-violaceous, covered with very short, sparse, recumbent whitish pubescence.

Epistome deeply emarginated in shape reminding of the "normal" (Gaussian) curve; front somewhat wider (above) than long (BW:AW:L \approx 1.15:1:1), sides S-shapedly convergent; vertex wide (VW:HW \approx 0.7); eyes not prominent, follow the outline of front; frontal sculpture consists of shallow, not very dense, wavily transverse, coarsely and rather densely punctured rugae. Antennae robust, rather short (reaching to *ca*. basal third of pronotal sides); 1. joint robustly club-shaped, twice longer than wide; 2. cylindrical, almost as wide as 1. but shorter; 3. still definitely shorter and thinner, ovate; 4. triangular, as wide as long; 5.-7. of subequal width but progressively shorter and more rounded on outer angle; 8.-10. becoming also narrower; 11. obliquely ovate, *ca*. 1.5× longer than wide.

Pronotum transverse, L:MW \approx 0.6, as wide at base as at apex, widest at middle (BW:MW:AW \approx 1:1.3:1); lateral margins almost regularly arcuate, only very shallowly subsinuate before basal and shortly constricted ("collar") behind apical angles; basal margin deeply, almost angularly bisinuate, anterior very shallowly so to both sides of prominent median lobe. Disk regularly convex, densely, coarsely tranversely punctatorugose, with but inconspicuous, shallow transverse prebasal and postapical depressions and rather deep prehumeral foveae; prehumeral carina very indistinct, short; shallowly S-shaped marginal and submarginal carinae entire but not conspicuous; submarginal rather widely separated from marginal anteriorly, then gradually approaching it to nearly touching at base. Scutellum *ca*. as wide as long, transversely carinulate, anterior part trapezoidal, posterior concavely triangular; surface smooth.

Elytra $2.5 \times$ longer than (together) wide, subparallelsided in anterior sixth, somewhat narrowed and again subparallelsided to behind $\frac{1}{3}$, slightly arcuately widened to behind midlength and arcuately-cuneately tapering to separately rounded apices; lateroapical margins finely serrulate. Surface flattened on median half, densely, regularly, rather coarsely punctured.







lateral

dorsal

Fig. 1 *Agrilus (Dentagrilus) merkli sp.n.* HT ♀: 3.9×1.1 mm. Kyŏnggi Pr.: San-chan tong, 8 VI 1970







dorsal

posteroventral

lateral

Fig. 2 *Agrilus (Dentagrilus) cyanescens (RTZB.)* ♀: 6.8×1.8 mm. Korea: Yanggang-do: Samjiyŏn, 1000 m., 26 VI 1988

Gular lobe short, apical margin almost imperceptibly emarginate; prosternal process flat, wide with subparallelsided basal and broadly triangular apical portion; pro- and metasternum transversely rugose. Abdomen regularly convex, finely and sparsely punctulate, perimarginal groove of anal sternite apically narrowly emarginated.

Geographical distribution: Unique holotype has been collected near the Yellow Sea shore, just at the border between North and South Korea.

Remarks: Sex determined according to the ventral profile of abdomen, somewhat subangularly bent at the posterior margin of first sternite and subsinuately sloping upwards in basal part. This character seems to work in the sg. Dentagrilus ALEX. (in males the ventral profile of anterior sternites being practically straight), but hitherto has been checked only on few specimens of A. caerulescens (RTZB.) and A. thibetanus OBB. Small size, short robust body, relatively coarse dorsal sculpture and straightly truncated gular lobe makes A. merkli sp.n. unmistakable among the representatives of the sg. Dentagrilus ALEX. known (either in nature or from descriptions) to me. The new species is named in honour of O. MERKL, curator of Coleoptera in the Természettudományi Múzeum (Natural Science Museum), Budapest.

Agrilus (Dentagrilus) cyanescens (RTZB.) s.str.

Material examined:

Yanggang-do ["Ryang-gang Prov."]: 'Chann-Pay plateau': road to Paektu-san: 24 km. NW Samjiyŏn ["San-zi-yan"], 2000 m., 24 VII 1975 [1: 6.3×1,7 – TTM]
Yanggang-do ["Ryang-gang Prov."], 1000 m., 26 VI 1988 [1^Q: 6.8×1.8 – TTM]
Yanggang-do ["Ryang-gang Prov."], 1000 m., 26 VI 1988 [1^d: 5.8×1.6; 1 ^Q: 6.9×1.8 – RBH: BPlfe,Iff]

Yanggang-do ["Ryang-gang Prov."]: 'Chann-pay plateau': 15 km. SSW Samjiyon ["San-zi-yan"], rd. to Paektusan, 1600 m., 23 VII 1975 [1♀: 6.4×1,7 – TTM]

Kangwŏn Pr: Kŭmgang san: nr. 'Hotel Go-song', 29 V 1970 [1^Q: 5.3×ca.1.4 – TTM]

Remarks:

Very widely distributed throughout Palaearctis, from Portugal and Great Britain to Ussuriland, Korea and (northern and central) China; introduced to N-America and there also widespread, in Syria replaced by the subspecies A. (D.) c. johanidesi JD.

Sinagrilus ALEX. Agrilus (Sinagrilus) coreanus OBB.

Material examined:

Kyŏnggi-do ["Prov. Kengi"]: ca. 20 km SE Kaesong: 'Bagyon san, San-chon tong', 8 VI 1970 [1∂: 11.1×2.9 – TTM1

Kyŏnggi-do ["Prov. Kengi"]: ca. 20 km SE Kaesong: 'Bagyon san, San-chon tong', 8 VI 1970 [1 \bigcirc : 11.3×3.0 – RBH:]

Remarks:

Apparently very rare species, hitherto known only from western marine provinces Kaesŏng and Inchŏn) on both sides of the border between North and South Korea.

Anambus THS.

Agrilus (Anambus) cyaneoniger SND. melanopterus SOLS.

Material examined:

Hamgyŏng-pukdo ["North Khamgen Prov."]: Chongjin, 5 VI 1991 [1♂: 11.2×2.5; 1♀: 12.5×2.8 – TTM]

Remarks:

Widely distributed in E-Asia from Amurland and Hokkaido to Yunnan and (DESCARPENTRIES & VILLIERS 1963) Tonkin. Rather enigmatic is the alleged occurrence of A. cyaneoniger SND. in Kashmir: JENDEK (1995) refers to it as "Newly recorded from India", but the record is rather old, known e.g. to OBENBERGER (1936, 1958), and apparently based on the same material: various collections contain specimens labelled "Goorais valley, Kaschmir, 7000 ft., VI. 87.", and the same label is cited in all – including OBENBERGER's (1936) and JENDEK's (1995, 2000) – publications known to me. So, either it is very rare but really occurring there, in which case its occurrence along the southern slopes of Himalaya between Kashmir and Yunnan would also be expectable, or (in my opinion much more probably) the respective specimens represent a mislabelled (dealer's?) sample. *A. melanopterus SOLS*. has been variously interpreted, even by the same author: *e.g.* JENDEK (1995) considered it an infrasubspecific variety (*i.e.* effectively a synonym) of the nominotypical race, then (JENDEK 2000) accepted its subspecific status, but later (JENDEK & GREBENNIKOV 2011) treated it again as a synonym; as pronotum of all specimens seen by me from Manchuria, Korea and Hokkaido was distinctly (even if dark) greenish- or cupreous-golden, while all those from farther south had it (at most faintly metallic) blackish, their subspecific differentiation seems evident.

C O R A E B I N A B E D. Coraebus C.G. C o r a e b u s C.G. s. s t r. Coraebus (s.str.) kiangsuanus OBB.

Material examined:

Kangwŏn-do: Kŭmgang-san, 28 IX 1979 [1: 11.3×3.9 – TTM]

Remarks:

East-Asian representative of the *C. [florentinus (HBST.)]*-superspecies, known from few widely separated localities from Ussuriland to Chinese provinces Szechuan and Kiangsu; to my knowledge, hitherto not recorded from Korea.

APHANISTICINI J.-V. CYLINDROMORPHINA PORT. Paracylindromorphus THY. Paracylindromorphus THY. s. str. Paracylindromorphus (s.str.) richteri THY.

Material examined:

Kyŏnggi-do ["Prov. Kengi"]: 22 km SE Kaesong: 'Bagyon san: near San-chon ri at San-chon tong', 7 VI 1970 [1♂: 4.5×0.7 – TTM]

Remarks:

Distribution seems restricted to Ussuriland, Manchuria and Korea; KUBÁŇ (2006), followed by CHOI & *al.* (2016) mentions also Japan.

Paracylindromorphus (s.str.) subuliformis (MNNH.) japanensis (SND.)

Material examined:

Kyŏnggi-do ["Prov. Kengi"]: 22 km SE Kaesong: 'Bagyon san: near San-chon ri at San-chon tong', 7 VI 1970 [1♀: 4.5×1.0 – RBH: BPlfh]

Kangwŏn-do: Kŭmgang-san: near 'Hotel Go-song', 29 V 1970 [1∂: 3.7×0.7 RBH: BPlfi]

Kangwŏn-do: Kŭmgang-san: near 'Hotel Go-song', 29 V 1970 [12: 3.7×0.8 – TTM]

35 km. SW Pyŏngyang: 'Tesson', 4 VII 1977 [1∂: 3.8× 0.8; 1♀: 4.2×0.9 – TTM]

Pyongyang city: 'Ryongak-san', 15 VI 1988 [1: 3.9×0.9 – RBH: BPlfj]

10 km. NE Pyŏngyang: 'De Sang-san', 1 VII 1977 [1∂: 3.5×ca. 0.7 – TTM]

Pyŏngan-namdo: ?80 km. NE Pyŏngyang: ?Paeksŏng-ni ["Prov. Pyong-sung: 60 km. NE Pyongyan: Za-mo san: Bek-sung-li"], 1 VIII 1975 [1♂: 3.4×ca. 0.6 – TTM]

Remarks:

The distribution and taxonomic status of this form remains unlear. THÉRY (1937a) considered it a synonym of the nominotypical race, but then (THÉRY 1937b), having found that "en réalité en diffère par quelques petits détails, le dernier sternite des \Im notamment est

assez différent", treated it as a separate species. ALEXEEV (1979) apparently not accepting P. s. japanensis (SND.) as separate taxon, recorded only "subsp. richteri Théry" from " Πpum ."[-opcĸuŭ Kpaŭ] and included southern Siberia, Mongolia, NE-China, Korea and Japan in the distribution area of P. subuliformis (MNNH.) s.str. According to KUBÁŇ (2006) P. s. japanensis (SND.) occurs in Japan, Korea and China, while "Russia: Far East" [referring apparently to Ussuriland] is inhabited by P. subuliformis (MNNH.) s.str. As the differences – except apical groove of male anal sternite – are very slight and not truly consistent, so identification is not always certain, but all specimens from E-Asia ever seen by me seemed to belong to P. s. japanensis (SND.), therefore I consider it a subspecies of P. subuliformis (MNNH.) and, consequently, the occurrence of the nominotypical form there seems to me rather improbable.

A PHANISTICINA J.-V. Aphanisticus LATR. A phanisticus LATR. s. str. Aphanisticus (s.str.) congener SND.

Material examined:

Pyŏngan-namdo: 'Taesong-ho', 26 IX 1978 [1: $2.7 \times 1.0 - BPlfm$] Hwanghae-namdo: Songhwa, 17 IX 1979 [1: $2.4 \times 0.9 - TTM$]

Remarks:

Described from Japan, known also from China; first reported from Korea by CHOI & *al.* (2016).

TRACHYDINI CAST. TRACHYDINA CAST. Trachys F. Tr a c h y s F. s. s t r. Trachys (s.str.) minutus (L.) mandjuricus OBB.

Material examined:

Pyŏngan-pukdo: Myohyang-san, 16 VII 1982 [1ø: 3.1×1.8 – RBH: BPlfo] Pyŏngan-namdo: 10 km. SW Kaechŏn: Yonpung-ho, 1 X 1978 [1ø: 3.3×1.8 – TTM] Pyŏngan-namdo: 60 km. NE Pyongyang: 'Za-mo-san', 2 VII 1971 [3ø: 2.8×1.6, 2.9×1.6, 3.0×1.7 – TTM] Pyŏngan-namdo: 'Taesong-ho lake', 13 IX 1979 [1ø: 3.1×1.7 – TTM Pyŏngan-namdo: 45 km. N Pyongyang: 'Sa-gam', 12 VIII 1971 [4ø: 2.9×1.6, 3.0×1.6, 3.0×1.7, 3.2×1.7 – TTM] Pyŏngan-namdo: 45 km. N Pyongyang: 'Sa-gam', 12 VIII 1971 [1ø: 3.2×1.7 – RBH: BPlfs] Pyŏngan-namdo: 45 km. N Pyongyang: 'Sa-gam', 5 VII 1977 [1ø: 3.2×1.8 – TTM Pyŏngan-namdo: Nampo, 19 VII 1975 [1: 2.8×1.5 – RBH: BPlfx Pyŏngan-namdo: Nampo, 22 IX 1979 [1: 3.2×1.7 – TTM Kangwŏn-do: Kŭmgang-san: Samil-po, 1 VI 1970 [1ø: 3.2×1.7 – TTM

Remarks:

The species is very widely distributed over the Palaearctis from Atlantic to Pacific Ocean; in Japan [and – according to KUBÁŇ (2016) – Formosa] – represented by ssp. *T. m. salicis (LEW.)* (whose main distinguishing character is said – KUROSAWA 1959 – to be "*elytral punctures finer and sparser*", what however is not evident in my specimens), but the taxonomic situation of Korean populations (and those of Siberian Far East) remains unclear: the specimens from there have less prominent humeral protuberances, more parallelsided basal half of elytra, and are almost invariably brighter coloured (pronotum cupreous-bronzed, elytra violaceous-blue) than European or Japanese ones; the difference is not fully diagnostic (also in Europe some individuals show similar – albeit with rare exceptions definitely duller – colouration) but seem sufficiently consistent for subspecific distinction. OBENBERGER (1917b)

described *T. mandjurica OBB.* from "Südmandjurien" and somewhat later (OBENBERGER 1918) reported it also from Korea; it has usually been treated as a synonym of *T. minuta* (*L.*) *s.str.*, and the original description (I have not seen the type) does not perfectly fit the specimens before me, but perhaps this is nevertheless the appropriate name for the East Asian continental subspecies, and is tentatively applied here.

Trachys (s.str.) variolaris SND. s.str.

Material examined:

Kanwŏn-do: Kŭmgang-san: Samil-po, 29 V 1970 [1ø: 3.5×1.9 – TTM] Kanwŏn-do: Kŭmgang-san: Samil-po, 1 VI 1970 [2ø: 3.6×2.0, 3.6×2.0 – TTM; 1ø: 3.5×1.8 – RBH: BPlgb] Kanwŏn-do: Kŭmgang-san: distr. Onjŏng: Samil-po, 4 VIII 1975 [1ø: 3.4×1.8 – TTM] Chagang-do: Myohyang-san, 18 IX 1980 [1ø: 3.7×2.0 – TTM] Hwanghae-namdo: Haeju: 'Sayong-san', 31 VII 1982 [1ø: 3.7×2.0 – RBH: BPlga]

Remarks:

Rather widely distributed in E-Asia: reported from the main Japanese islands, Korea, and northeastern parts of China (according to KUBÁŇ 2016 as far south as Hunan and Yunnan). The taxonomic status of *T. dilaticeps GEBH*. is somewhat unclear: described by GEBHARDT (1928) from SE-China and (*T. mixtipilis OBB*.) by OBENBERGER (1929) from Tonkin as separate species, it has been later reported (KUROSAWA 1959) from southernmost Japan as a subspecies (*T. v. robustissima KUR*.) of *T. variolaris SND*., to be more recently (AKIYAMA & OHMOMO 1997, KUBÁŇ 2006, 2016) treated again as a separate species; none of these decisions having been argumented it is difficult to evaluate their relative soundness, but in view of very slight (even in my small -7 vs. 2 ex. - sample partly overlapping) morphological differentiation and apparently vicariant distribution (from southernmost Kûshû through Ryu-Kyus and Formosa to SE-China and Tonkin) KUROSAWA's (1959) interpretation seems better justified.

Parahabroloma Kur. Trachys (Parahabroloma) subbicornis (MOTSCH.)

Material examined:

35 km. SW Pyŏngyang: 'Tesson', 4 VII 1977 [1ø: 2.5×1.4 – TTM

Remarks:

The geographical distribution of this species is unclear due to its exceedingly adventurous nomenclatural history. MOTSCHULSKY (1860) described it from Japan as Brachys subbicornis MOTSCH.; the reasons for such classification are difficult to guess: his new species shows neither the diagnostic characters nor even any superficial similarity to Brachys DEJ., an American genus having not a single representative in the Old World! The misplacement has been detected by LEWIS (1893) [who, ironically, made himself a similar mistake, describing his new taxon – currently considered a subspecies of Trachys minutus (L.) – as... Brachys salicis sp.n., despite full awareness of the involved biogeographic oddity...], but his interpretation brought additional tremendous confusion: he correctly recognized Brachys subbicornis MOTSCH. as a representative of the genus Trachys F., but synonymized it with T. griseofasciata SND., again a species neither closely related (different subgenus: Trachys s.str.!) nor similar to the beetle in question [he might – as suggested by KUROSAWA (1959) – have actually in mind Trachys griseonigra SND., described in the same paper (SAUNDERS 1873) as T. griseofasciata SND.]. MOTSCHULSKY's paper remained apparently unknown to most workers, so LEWIS' (1893) version had been generally accepted and during the next decades in collections and literature under the name Trachys subbicornis (MOTSCH.) specimens of, and data on, Trachys (s.str.) griseofasciata SND. (or misidentified similar species) accumulated. KUROSAWA (1959) was apparently the first to recognize that MOTSCHULSKY's (1860) description actually refers to a species of his new subgenus Parahabroloma KUR., and more exactly of what he called "the *elegantula*-group", but having not seen the type material he was unable to establish its exact specific identity – this could have been done only after the next 36 years, when AKIYAMA & OHMOMO (1995) ascertained that *Brachys subbicornis MOTSCH*. is a senior synonym of *Trachys elegantula SND*. Thus, the reliably known distribution of this species includes main Japanese islands, Korea, and eastern maritime provinces of China (Kiangsu and Chekiang: type localities of synonymous *T. suensoni GEBH*. and *T. formaneki OBB*.); at least some of the other – especially southern – literature records may constitute "LEWIS' legacy", referring in fact to misnamed *T. griseofasciata SND*. or its relatives.

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