

DESCRIPTION OF NEW SPECIES OF CLICK BEETLES FROM THE PALEARCTIC REGION WITH INTERESTING NEW RECORDS (COLEOPTERA, ELATERIDAE)

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Abstract: A total of 17 new species of click-beetles of the genera *Conoderus* Eschscholtz, 1829 (2, Afghanistan), *Ligmargus* Stibick, 1976 (1, China), *Hypnoidus* Dillwyn, 1829 (2, China), *Athous* Eschscholtz, 1829 (1, Italy), *Ampedus* Dejean, 1833 (1, Greece), *Cardiophorus* Eschscholtz, 1829 (2, Pakistan), *Dicronychus* Brullé, 1832 (1, Turkey), *Coptostethus* Wollaston, 1854 (7, Canary Islands) are described. New records for nine species of the the genera *Compsolacon* Reitter, 1905, *Heteroderes* Latreille, 1834, *Athous* Eschscholtz, 1829, *Agriotes* Eschscholtz, 1829, *Reitterelater* Platia & Cate, 1990, *Cardiophorus* Eschscholtz, 1829, *Dicronychus* Brullé, 1832 are given, and a new combination for a species of the genus *Conoderus* Eschscholtz, 1829 is proposed.

Key words: Coleoptera, Elateridae, new species, new records, new combination, Palearctic region.

Descripción de especies nuevas de elatéridos de la región Paleártica, con nuevas citas interesantes (Coleoptera, Elateridae)

Resumen: Se describen 17 especies nuevas de elatéridos de los géneros *Conoderus* Eschscholtz, 1829 (2, Afganistán), *Ligmargus* Stibick, 1976 (1, China), *Hypnoidus* Dillwyn, 1829 (2, China), *Athous* Eschscholtz, 1829 (1, Italia), *Ampedus* Dejean, 1833 (1, Grecia), *Cardiophorus* Eschscholtz, 1829 (2, Paquistán), *Dicronychus* Brullé, 1832 (1, Turquía) y *Coptostethus* Wollaston, 1854 (7, Islas Canarias). Se aportan nuevas citas de nueve especies de los géneros *Compsolacon* Reitter, 1905, *Heteroderes* Latreille, 1834, *Athous* Eschscholtz, 1829, *Agriotes* Eschscholtz, 1829, *Reitterelater* Platia & Cate, 1990, *Cardiophorus* Eschscholtz, 1829 y *Dicronychus* Brullé, 1832, y se propone una combinación nueva para una especie del género *Conoderus* Eschscholtz, 1829.

Palabras clave: Coleoptera, Elateridae, especies nuevas, cita nueva, combinación nueva, región Paleártica.

Taxonomy / Taxonomía: *Conoderus kasyi* n.sp., *Conoderus vartiani* n.sp., *Conoderus pecirkai* (Jagemann, 1945) n.comb., *Ligmargus busii* n.sp., *Hypnoidus roccai* n.sp., *Hypnoidus xiningensis* n.sp., *Athous* (*Orthathous*) *orobicus* n.sp., *Ampedus benellii* n.sp., *Cardiophorus pakistanicus* n.sp., *Cardiophorus hameti* n.sp., *Dicronychus pesarinii* n.sp., *Coptostethus eggeri* n.sp., *Coptostethus vilaflorensis* n.sp., *Coptostethus petterssoni* n.sp., *Coptostethus bonitaensis* n.sp., *Coptostethus nemethi* n.sp., *Coptostethus opaculus* n.sp., *Coptostethus skoupyi* n.sp.

Introduction

This paper reports the results of a study of several click-beetles from different countries of the Palearctic Region, recently submitted by museums and colleagues. We have recognized seventeen undescribed species belonging to the genera *Conoderus* (Afghanistan), *Ligmargus* and *Hypnoidus* (China), *Athous* (Italy), *Ampedus* (Greece), *Cardiophorus* (Pakistan), *Dicronychus* (Turkey) and *Coptostethus* (Canary Isl.).

New records of nine species of the genera *Compsolacon*, *Heteroderes*, *Athous*, *Agriotes*, *Reitterelater*, *Cardiophorus*, *Dicronychus* report additional data to their known distribution.

Heteroderes pecirkai Jagemann, 1946 from North India is transferred to the genus *Conoderus* Eschscholtz on the base of the simple pronotal punctuation.

Two species of elaterids (*Agriotes flavobasalis* Heyden, 1889 and *Athous* (*Orthathous*) *obsoletus* (Illiger, 1807), previous known from the Iberian peninsula are recorded from Madeira Island for the first time (Borges *et al.*, 2008).

Material and methods

Body measurements – The body length is measured along the midline from the anterior margin of frons to apex of the

elytra; width is measured across the broadest part of the body.

Pronotal measurements – The pronotal length is measured along the midline; the width is at the broadest part, usually at hind angles.

Abbreviations – The names of institutions, museums and collections providing material for this study are abbreviated as follows:

- CGW, Gazurek coll., Warszawa (Poland)
- CMM, Monguzzi coll., Milan (Italy).
- CMHK, Mertlik coll., Hradec Králové (Czech Republic).
- CPG, Platia coll., Gatteo (Italy).
- CRG, Riese coll., Genoa (Italy).
- NHMW, Natural History Museum, Wien, Austria (H. Schönmann).
- NME, Naturkundemuseum Erfurt, Germany (M. Hartmann).
- NMPC, Národní Muzeum, Praha, Czech Republic (Jiří Hájek).

Tribal placement of genera and species listed below follows Bouchard *et al.* (2011). The abbreviations of countries, given by “distribution” follows Cate (2007).

Some contributions to realize this work have been: Cobos (1970, 1979, 1983), Franz (1980), Jagemann (1945), Kabakak *et al.* (2013), Liberto & Wurst (1999), Platia (2006, 2010), Platia & Gudenzi (1998, 2004) and Platia & Nemeth (2011).

Results

Tribe AGRYPNINI Candèze, 1857

Compsolacon tuberosus (Vats & Kashyap, 1992)

MATERIAL EXAMINED. 1 spcm. ♂ - Afghanistan: Nuristan, Bashgultal, m 1100, 11.IV.1953, J. Klapperich leg. (HNHM). DISTRIBUTION. India (A: HP UP ORR (Cate, 2007); Pakistan (Platia, 2015). **New species for Afghanistan.**

Tribe OOPHORINI Gistel, 1848

Heteroderes lenis Candèze, 1859

MATERIAL EXAMINED. 1 spcm. ♂ - Afghanistan: Petsch-Tal, Ö. Schari-Sarai, m 1100, 9-11.VII.1965, Kasy & Vartian leg. (NHMW).

DISTRIBUTION. HP KA UP ORR (Cate, 2007). **New species for Afghanistan.**

Conoderus pecirkai (Jagemann, 1945) n.comb.

Heteroderes pecirkai Jagemann, 1945: 40.

MATERIAL EXAMINED. Syntype ♀ - India: Bajoara, Kashmir (Jagemann coll. NMPC).

DISTRIBUTION. Kashmir (Cate, 2007).

NOTES: Because of the simple punctuation of pronotum with punctures approximately of the same size the species is transferred to the genus *Conoderus* Eschscholtz, 1829.

Conoderus kasyi n.sp.

Fig. 28, 36.

MATERIAL EXAMINED. Holotypus ♀ - Afghanistan: Nuristan, 25 km N Barikot, m 1800, 12-17.VII.1963, F. Kasy & E. Vartian leg. (NHMW).

DIAGNOSIS. Species similar to *Conoderus pecirkai* (Jagemann, 1946) for the general shape and size it can be separated by the longer antennae and posterior angles of pronotum slightly divergent.

DESCRIPTION. Female. Shiny; entirely yellow-ferruginous with the great part of head, the central-anterior part of pronotum, base of elytra, anterior third of the first two interstriae, blackish; at the posterior third of elytra are few apparent two short darkish, transversal, small spots are present; antennae and legs yellowish; covered with dense, recumbent, yellow-golden pubescence.

Frons convex, anterior margin substraight, shortly protruding above the clypeus, punctuation regularly distributed, punctures deep, simple, with variable and shiny intervals, on average smaller than their own, diameters.

Antennae not reaching for about two articles the apices of posterior angles of pronotum moderately serrated from fourth article on; second and third articles subcylindrical, subequal in length, taken together, just longer than fourth; fourth-tenth subtriangular, fourth longer than fifth; fifth-tenth subequal in length, on average 1.5x longer than wide; last subellipsoidal as long as penultimate.

Pronotum as long as wide, widest at the apices of posterior angles, very convex, abruptly sloping at sides and base with a very shallow and short mid-longitudinal depression at basal slope; sides subparallel from middle to nearly the apices of posterior angles, the latter acuminate, very slightly divergent, with a short and fine carina parallel to the lateral margins, this complete and visible from base to middle in a dorsal view; punctuation uniformly distributed, punctures deep, simple, with shiny intervals, on the disk on average equal to their own diameters.

Scutellum shield-shaped, as long as wide, convex, ridged at base, slightly sinuate at middle of sides, finely punctured.

Elytra 2,12x longer than pronotum and as wide as it, convex; sides subparallel from base to behind the middle, further very gradually converging to the apices; striae well marked and punctured; interstriae convex, very finely punctured.

Fourth tarsal articles with a long and narrow lamella, invisible in a dorsal view and reaching nearly the middle of the fifth article.

Size. Length 5.75 mm; width 1.68 mm.

Male unknown.

ETYMOLOGY. The species is dedicated to one of the collectors, the austrian entomologist, Kasy.

Conoderus vartiani n.sp.

Fig. 1, 1a, 22, 29, 37.

MATERIAL EXAMINED. Holotype ♂ - Afghanistan: Nuristan, 25 km N Barikot, m 1800, 12-17.VII.1963, Kasy & Vartian leg. (NHMW). 1 Paratype ♂ - same data as Ht. (CPG).

DIAGNOSIS. A species very similar to *Conoderus productus arabicus* Chassain, 1979 for the general shape, colour and size, it is easily separated by the finer pronotal punctuation.

DESCRIPTION. Male. Moderately shiny; color variable; entirely yellow ferruginous, darkened in the posterior half of head, around of scutellum, suture and first two elytral interstriae from base to middle expanded to the eighth interstriae as a transversal spot not reaching the apices (Ht), in the paratype the darkened area of elytra are reduced to a subtransversal spot in the posterior third; antennae and legs yellowish; covered with a very dense, recumbent, yellow-golden pubescence.

Frons convex, anterior margin substraight, shortly protruding above the clypeus, punctuation regularly distributed, punctures deep, simple, with short, variable and shiny intervals.

Antennae not reaching for about one article the apices of posterior angles of pronotum, slightly serrated from fourth article on, second article subcylindrical, 1.3x longer than wide, third subconical, just longer than second; second and third, taken together, a little longer than fourth; fourth-tenth subtriangular, on average twice longer than wide, last a little longer than penultimate, subellipsoidal.

Pronotum as long as wide, widest at the apices of the posterior angles, moderately convex with a very shallow and narrow mid-longitudinal depression before the basal slope; sides moderately arcuate, from behind the middle very gradually and regularly converging to the anterior margin, very slightly sinuate before the posterior angles, the latter acute, a little divergent, with a short and fine carina subparallel to the lateral

margins, this complete and visible in the basal third in a dorsal view; punctuation uniformly distributed, punctures deep, simple, approximately of the same size, with short, shiny, variable intervals, nearly contiguous at the lateral extremities.

Scutellum shield-shaped, quadrangular, moderately convex, very finely punctured.

Elytra 2.2x longer than pronotum and as wide as it, convex; sides subparallel from base to the middle, further very gradually converging to the apices, striae well marked and punctured, interstriae subconvex, very densely punctured.

Fourth tarsal articles with a long and narrow lamella, invisible in a dorsal view and reaching nearly the middle of the fifth article.

Aedeagus as in fig. 1, 1a (length 0.85 mm.).

Female unknown.

Size. Length 5.6- 5.9 mm; width 1.68-1.75 mm.

ETYMOLOGY. The species is dedicated to one of the collectors, the austrian entomologist, Vartian.

Tribe HYPNOIDINI Schwarz, 1906

Ligmargus busii n.sp.

Fig. 2, 2a, 23, 30, 38.

MATERIAL EXAMINED. Holotype ♂ - China: Qinghai, road 227, Daban Shan Mt., Menyuan, m 3870, 17-23.VI.2011, C. Busi leg. (CPG).

DIAGNOSIS. Species easily separated from all the known species for the convex body and the short posterior angles of pronotum.

DESCRIPTION. Male. Moderately shiny; entirely black except for the first antennal article and the base of the following, tibiae and tarsi ferruginous; covered with dense yellow-fulvous pubescence.

Frons triangularly but moderately impressed from near the vertex to the anterior margin, this slightly thickened, subarcuate, shortly sinuate at middle, not protruding above the clypeus, punctuation coarse with punctures variable in size and density with very short, shiny intervals or contiguous.

Antennae not reaching for about 0.5 articles the apices of posterior angles of pronotum, serrated from fourth article on; second article subcylindrical a little longer than wide, third subconical, longer than second; second and third, taken together longer than fourth; fourth-tenth triangular, pedunculate, a little longer than wide, last just longer than penultimate, subellipsoidal.

Pronotum 1.17x wider than long, widest at middle of sides, moderately convex; sides arcuate, from middle gradually converging and slightly sinuate before the posterior angles, the latter acuminate, divergent, with a fine and short carina parallel to the lateral margins; punctuation very dense and uniformly distributed, punctures deep, simple, on the disk with very short, shiny intervals, gradually denser towards the sides, contiguous and confluent from the lateral slope to the extremities.

Scutellum shield-shaped, quadrangular, flat, densely punctured.

Elytra 2.27x longer than elytra and as wide as it, sides widest before the middle than gradually and regularly converging to the apices; striae superficial, finely punctured, interstriae flat, densely punctured.

Aedeagus as in fig. 2, 2a (length 1.71 mm).

Female unknown.

Size. Length 6.5 mm; width 2.43 mm.

ETYMOLOGY. The species is dedicated to the collector, the colleague C. Busi from Bologna.

Hypnoidus roccai n.sp.

Fig. 3, 3a, 24, 31, 39.

MATERIAL EXAMINED. Holotype ♂ - China: Qinghai, Pass between Hualong and Ledu, m 3900, 16-24.VI.2011, C. Busi leg. (CPG). 2 Paratypes ♀ - same data as Ht. (CPG).

DIAGNOSIS. Similar to *H. xiningensis* n.sp. but it is separated for the smaller body and the pronotum with posterior angles not divergent and with less shiny surface.

DESCRIPTION. Male. Moderately shiny; entirely blackish with bronzed shades, base of antennal articles and tibiae yellowish, apical part of antennal articles, femura and tarsi blackish; covered with dense, recumbent, yellowish pubescence.

Frons moderately convex on the vertex, flat before the anterior margin, this arcuate, not protruding above the clypeus; punctuation uniformly distributed, punctures deep, simple, with intervals shagreened and on average a little larger than their own diameters.

Antennae not reaching for more of two articles the apices of the posterior angles of pronotum, serrated from fourth article on, second article subcylindrical, third subconical, a little longer than second and as long as the fourth, this conical, fifth-tenth triangular and pedunculate, fifth-seventh as long as wide, eighth-tenth wider than long, last ovaliform a little longer than penultimate.

Pronotum 1.27x wider than long, widest at the apices of the posterior angles, very convex, abruptly sloping at sides, nearly vertically sloping at base with a shallow and short mid-longitudinal depression at the basal slope, sides subparallel from base to the anterior third, posterior angles, short, truncate, not divergent, with a short, just visible carina; punctuation uniformly distributed, punctured deep, simple, with intervals slightly shagreened and on average equal to a little smaller than their own diameters.

Scutellum shield-shaped, quadrangular, flat, finely punctured.

Elytra 2x longer than pronotum and as wide as it, strongly convex; sides arcuate, widest before the middle then gradually converging to the apices; striae regularly marked, not punctured; interstriae flat, finely punctured with rough surface.

Wings absent.

Aedeagus as in fig. 3, 3a (length 0.73 mm).

Female. Identical to the male.

Size. Length 4.4-5.0 mm; width 1.81-2.0 mm.

ETYMOLOGY. The species is dedicated to the colleague V. Rocca.

Hypnoidus xiningensis n.sp.

Fig. 25, 32, 40.

MATERIAL EXAMINED. Holotype ♀ - China: Qinghai, Qunjia env., NE of Guide, Xining, m 3590, 16-25.VI.2011, C. Busi leg. (CPG). 2 Paratypes ♀ - same data as Ht (CPG).

DIAGNOSIS. Species related to *H. tibetanus* Dolin & Cate, 1998 for the general shape and size, it can be separated for the

posterior angles of pronotum slightly divergent and the stouter body with elytra shorter compared to pronotum.

DESCRIPTION. Female. Shiny; entirely black except for the first antennal article and the base of the following, tibiae and tarsi ferruginous; covered with dense yellow-fulvous pubescence.

Antennae not reaching for more of two articles the apices of the posterior angles of pronotum, serrated from fourth article on, second article subcylindrical, third subconical, a little longer than second and the fourth, this conical, fifth-tenth triangular and pedunculate, fifth-seventh as long as wide, eighth-tenth wider than long, last ovaliform a little longer than penultimate.

Frons moderately convex on the vertex, flat before the anterior margin, this arcuate, not protruding above the clypeus; punctuation uniformly distributed, punctures deep, simple, with intervals more or less shagreened and on average larger than their own diameters.

Pronotum 1.2-1.25x wider than long, widest just behind the middle and at the apices of the posterior angles, very convex, abruptly sloping at sides, nearly vertically at base, with a shallow and short mid-longitudinal depression at the basal slope; sides arcuate, slightly sinuate before the posterior angles, the latter acuminate, divergent, with a short carina parallel to the lateral margins; punctuation with punctures deep, simple, with shiny intervals on average larger than their own diameters.

Scutellum rounded, flat, punctured.

Elytra 2.1x longer than pronotum and as wide as it, very convex, sides arcuate, widest before the middle then gradually converging to the apices; striae regularly marked, not punctured; interstriae flat, finely.

Wings absent.

Male unknown.

Size. Length 5.3-5.5 mm; width 2.0- 2.06 mm.

ETYMOLOGY. The name is derived from Xining, the capital of Qinghai province.

Tribe DENDROMETRINI Gistel, 1848

Athous (Orthathous) orobicus n.sp.

Fig. 4, 4a, 27, 33, 41.

MATERIAL EXAMINED. Holotype ♂ - Italy: Bergamo prov., Alpi Orobie, Castione-Passo della Presolana (45°55'12.75"N, 10°06'00"E), m 1170, 18-21.VI.2006, P. Schnitter leg. (NME). 2 Paratypes ♂ - same data as Ht (CPG); Bergamo prov., Monte Alben, m 1800, 15.VII.2014, R. Monguzzi leg. (CMM).

DIAGNOSIS. A species related to *A. (Orthathous) vailatii* Platia & Pedroni, 2010 for the general shape and size it can be separated by the darkish colour of head and elytra, a little longer antennae, lighter pronotal punctuation, stouter male genitalia.

DESCRIPTION. Male. Moderately shiny; head and pronotum brownish with base of head and sloping sides of pronotum blackish; scutellum blackish; elytra lighter, yellowish with blackish shadings along the suture and the sides; antennae brown-ferruginous, legs lighter, yellowish; covered with dense, long, yellowish pubescence.

Head impressed from middle to the anterior margin, the latter more or less arcuate, just protruding the clypeus; punc-

ture coarse, punctures umbilicate with very short, shiny intervals or contiguous.

Antennae exceeding by three articles the apices of posterior angles of pronotum, slightly serrated from third article on; second article subcylindrical, 1.5x longer than wide, third conical, 2x longer than second, second and third taken together 1.2x longer than fourth; fourth-tenth subtriangular, on average 2.3x longer than wide, last longer than penultimate, subellipsoidal.

Pronotum 1.1-1.15x longer than wide, widest at the apices of posterior angles, convex, with a vestige of very narrow, mid-longitudinal line on the disk; sides moderately arcuate, from behind the middle very gradually converging to the anterior margin, slightly sinuate before the posterior angles, the latter just divergent, acute, not carinate; punctuation coarse and dense, punctures on disk slightly umbilicate, with very short, shiny intervals gradually denser towards the sides, strongly umbilicate and contiguous at the lateral extremities.

Scutellum smaller than interelytral space, convex, roughly punctured.

Elytra 2.6x longer than pronotum and just wider than it, convex; sides subparallel from base to the middle, further very gradually tapering to the apices; striae well marked and punctured, interstriae flat, densely punctured with rough surface.

Fourth tarsal article much more narrow and short than third.

Aedeagus as in fig. 4, 4a (length, 0.95 mm).

Size. Length 7.3-8.5 mm; width 2.0-2.25 mm.

ETYMOLOGY. The name is derived from the territory where the species was collected, Alpi Orobie.

Athous (s. str.) obsoletus (Illiger, 1807)

Fig. 42.

MATERIAL EXAMINED. 1 spcm. ♂ - Portugal: Madeira Island, João do Prado (32°42'03", 16°51'47"W), m 1250, 18.VII.2014, Küssner leg. (NME).

DISTRIBUTION. Portugal (Cate, 2007); Spain (Platia, 2006).

New species for Madeira Island.

ECOLOGICAL NOTES: Wood, underwood.

Tribe AGRITOTINI Laporte, 1840

Agriotes flavobasalis Heyden, 1889

Fig. 44.

MATERIAL EXAMINED. 1 spcm. ♀ - Portugal: Madeira Isl., Santo Antonio da Serra (32°43'16"N, 16°48'15"W), m 700, 21.VII.2014, Küssner leg. (NME).

DISTRIBUTION. Portugal (Cate, 2007). **New species for Madeira Island.**

ECOLOGICAL NOTES: On grassland.

Agriotes longipronotum Kabalak, Sert, Ozgen & Platia, 2013

MATERIAL EXAMINED. 1 spcm. ♂ - Iraq: Kurdistan Reg., Duhok-Akre, VI-IX.2011, at light.

DISTRIBUTION. Described from the Siirt Province (Turkey).

New species for Iraq.

Agriotes propleuralis Platia & Gudenzi, 1998

Figs. 5, 5a.

MATERIAL EXAMINED. 1 spcm. ♂ - Georgia: Borjomi N.P., Chitakhevi, m 1920, 21-23.VI.2010, A. Matusiak leg. (CPG).

NOTES. Aedeagus as in fig. 5, 5a (length 1.37 mm).

DISTRIBUTION. Turkey. (Cate, 2007). **New species for Georgia.**

Tribe AMPEDINI Gistel, 1848

Reitterelater dubius Platia & Cate, 1990

MATERIAL EXAMINED. 4 spcm. ♂ - Poland: Rezerwat Lezczak/Raciborza, 23.VI.2011, T. Gazurek leg. (CGW; CPG).

DISTRIBUTION. E: AU CZ FR GE GR HU IT SK SL SV UK A: TR (Cate, 2007). Spain, (Recalde & Sanchez-Ruiz, 2006). Israel (Platia 2010); Syria (Platia & Nemeth, 2011). **New species for Poland.**

Ampedus benellii n.sp.

Fig. 6, 6a, 26, 34, 43.

MATERIAL EXAMINED. Holotype ♂ - Greece: Thessalia, Metsovo env., near Plastiras lake, 8.VI.2014, M. Benelli leg. (CPG).

DIAGNOSIS. The species could be compared to *A. nigroflavus* (Goeze, 1777) for the similar colour of body and pubescence but it is easily separated for the third subtriangular article of antennae, the coarser punctuation of pronotum, the male genitalia.

DESCRIPTION. Male. Bicoloured; head, pronotum, scutellum, underbody, black shiny; elytra entirely dark-orange with the apical extremity blackish; antennae black with second and third articles a little lighter; legs with femura and tibiae black and tarsi dark-ferruginous; covered with dense, long, partially erect pubescence, black on head and pronotum, fulvous on elytra.

Frons convex on vertex, flat before the anterior margin, punctuation coarse with punctures deep, umbilicate, with very short, shiny intervals.

Antennae nearly reaching the apices of posterior angles of pronotum, serrated from fourth article on, second article subcylindrical, as long as wide, third subtriangular, 1.5x longer than second and 1.35x longer than wide, taken together 1.1x longer than fourth; fourth-tenth triangular, sculpture, on average 1.4x longer than wide, last longer than penultimate, subellipsoidal, slightly constricted before the apex.

Pronotum 1.23x wider than long, widest at the apices of the posterior angles, convex, with a shallow, short, mid-longitudinal depression on the basal slope; sides from middle rather abruptly narrowing forwards, slightly arcuate backwards from middle and very feebly sinuate before the posterior angles, the latter rather acute, not divergent, with a fine and short carina directed inwards; punctuation coarse, punctures rounded, on the disk deep, slightly umbilicate with intervals variable, on average equal or a little smaller than their own diameters, gradually denser towards the sides but always rounded and with very short shiny intervals.

Scutellum shield-shaped, ridged at base, moderately sinuate at sides, flat, punctured.

Elytra 2.9x longer than pronotum and as wide as it, convex; sides very gradually and regularly narrowing from base to the apices; striae regularly marked and punctured, interspersed subconvex with very fine punctures.

Aedeagus as in fig. 6, 6a (length 1.43 mm).

Female unknown.

Size. Length 12.0 mm; width 3.68 mm.

ETYMOLOGY. The species is dedicated to the collector, the friend specialist of Col. Cerambycidae, M. Benelli from Ravenna.

Tribe CARDIOPHORINI Candèze, 1859

Cardiophorus sacratoides Platia, 2010

MATERIAL EXAMINED. 1 spcm. ♀ - Jordan: SW Jarash, Alhuna, 12.IV.2009, M. Snizek leg. (CPG).

DISTRIBUTION. Described from Israel. **New species for Jordan.**

Cardiophorus pakistanicus n.sp.

Fig. 7, 7a, 46.

MATERIAL EXAMINED. Holotype ♂ - Pakistan: Punjab, Multan, 30.VI.2008, M. Atique leg. (CRG). 4 Paratypes ♂ - (2) Punjab, Bhawalpur, 25.V.2008, M. Atique leg.; (2) Harpaykar, Nocot, 25.V.2009, Akhter Atique leg. (CPG; CRG).

DIAGNOSIS. A species allied to *C. pseudofabriens* Buysson, 1912 (syn. *varius* Cate et alii, 2002 (Nemeth & Platia, 2014), species distributed from middle East to South Iran, for the general appearance, colour and the very similar genitalia, it can be easily separated by the lighter punctuation of pronotum.

DESCRIPTION. Male. Colour rather variable; head and pronotum a little darker than elytra, dark ferruginous to blackish on the disk of pronotum, elytra yellow-ferruginous with a more or less developed blackish fusiform spot on the middle; antennae and legs yellow-ferruginous; covered with short, dense, recumbent, yellowish pubescence.

Frons flat on the vertex, slightly impressed at the anterior margin, the latter moderately arcuate and just protruding above the clypeus; punctuation very dense with punctures approximately of the same size, simple, with very short, shiny intervals.

Antennae nearly reaching the apices of posterior angles of pronotum, slightly serrated from third article on; second subconical, twice longer than wide and 1.3x shorter than fourth; fourth-tenth subtriangular, on average twice longer than wide, last as long as penultimate, subellipsoidal.

Pronotum as long as wide or just wider than long, widest before the middle, very convex, abruptly sloping at sides and base, sides arcuate, from before the middle gradually narrowing and slightly sinuate just before the posterior angles, the latter short, truncate, not divergent, with a very short carina directed forwards, lateral suture-like margin obsolete at the anterior third; punctuation uniformly distributed, punctures of two sizes, larger, deep and simple punctures are regularly mixed with very fine punctures with very short, shiny intervals.

Scutellum heart-shaped as long as wide, emarginate at middle of base, slightly impressed, finely punctured.

Elytra 2.1-2.2x longer than pronotum and as wide as it, convex; sides widest at middle, striae regularly marked and punctured, interstriae flat, very finely punctured.

Aedeagus as in fig. 7, 7a (length 0.825 mm).

Claws simple.

Female unknown.

Size. Length 5.0-6.8 mm; width 1.68-2.12 mm.

ETYMOLOGY. The name is derived from the country where the species was collected.

***Cardiophorus hameti* n.sp.**

Fig. 16, 16a, 45.

MATERIAL EXAMINED. Holotype ♀ - Pakistan: Quetta env., 5.VIII.1989, dr. A. Hamet leg. (CMHK). 1 Paratype ♀ - same data as Ht (CPG).

DIAGNOSIS. A species allied to *C. pseudofabriens* Buysson, 1912 [syn. *C. varius* Cate *et al.*, 2002 (Nemeth & Platia, 2014)], species distributed from the Middle East to South Iran, for the general appearance, it is separated for the slenderer body, the darker colour and the shape of the intermediate piece of bursa copulatrix similar to a small v-letter.

DESCRIPTION. Female. Colour rather variable; head, pronotum and scutellum blackish, darker than elytra dark-ferruginous with blackish shadings at middle (Ht) to entirely dark-ferruginous with blackish shadings on the elytral punctation (Pt); covered with dense, recumbent, yellowish pubescence.

Frons flat on the vertex, slightly impressed before the anterior margin, the latter more or less regularly arcuate just protruding above the clypeus; punctuation dense, with punctures approximately of the same size with very short, shiny intervals.

Antennae mutilated from fourth article, slightly serrated from third on; second article subcylindrical, shorter than third; third-fourth subtriangular, subequal in length.

Pronotum as long as wide, widest just before the middle, strongly convex; sides arcuate, from before the middle gradually narrowing and slightly sinuate before the posterior angles, the latter short, truncate, not divergent with a short carina directed forwards; lateral suture-like margin obsolete at the anterior third; punctuation uniformly distributed, punctures of two sizes, larger, deep and simple punctures are regularly mixed with much more fine punctures, intervals very short and shiny.

Scutellum heart-shaped, as long as wide, emarginate at middle of base, slightly impressed and finely punctured.

Elytra 2.1-2.2x longer than pronotum, and as wide as it, convex; sides widest at middle, striae well marked and punctured, interstriae flat with very fine and dense punctures.

Claws simple.

Bursa copulatrix sclerified as in fig. 16, 16a.

Male unknown.

Size. Length 6.3-6.8 mm; width 2.0-2.12 mm.

ETYMOLOGY. The species is dedicated to the collector, dr. A. Hamet.

***Dicronychus pesarinii* n.sp.**

Fig. 15, 15a, 35, 47.

MATERIAL EXAMINED. Holotype ♀ - Turkey: Püren Geçidi env., Kahramanmaraş prov., VI.2012, Sabbadini & Pesarini leg. (CPG).

DIAGNOSIS. A species comparable for the wings a little short than elytra to *D. deminutus* Platia & Gudenzi, 2004 but it is easy separated for the uniform blackish colour and particularly for the spiniform, sclerified, intermediate pieces of bursa copulatrix.

DESCRIPTION. Female. Entirely blackish with antennae and legs lighter, dark-ferruginous; covered with dense, fine, recumbent, yellow-fulvous pubescence.

Frons flat on the vertex, slightly impressed at the anterior margin, the latter regularly arcuate and just protruding above the clypeus; punctuation dense with punctures deep, simple, with very short, shiny intervals.

Antennae mutilated of last three articles, presumably just reaching the apices of the posterior angles of pronotum slightly serrated from third article on, second article subcylindrical, 1.85x longer than wide and 1.45x shorter than third; third-following subtriangular, third slightly shorter than fourth, on average 2.4x longer than wide.

Pronotum 1.09x wider than long, widest at the middle, strongly convex on the disk, abruptly sloping at sides and base; sides very arcuate, from middle gradually narrowing and slightly sinuate before the posterior angles, the latter shortly emarginate before the apices, not divergent, with a short carina directed forwards; lateral suture-like margin well apparent from base to the middle, further obsolete; punctuation much more finer than the frontal, uniformly distributed, punctures deep, simple, approximately of the same size, with very short, shiny intervals.

Scutellum heart-shaped as long as wide, emarginate at middle of base, slightly impressed, finely punctured.

Elytra 2.38x longer than pronotum and as wide as it, strongly convex, ovaliform, widest at middle of the sides; striae well marked and deeply punctured; interstriae moderately convex, very densely and finely punctured.

Wings reduced only reaching the last third of elytra, very probably not able to fly.

Claws toothed in the first half.

Bursa copulatrix sclerified as in the fig. 15, 15a.

Male unknown.

Size. Length 7.1 mm; width 2.31 mm.

ETYMOLOGY. The species is dedicated to one of the collectors, Dr. Carlo Pesarini, of the Natural History Museum of Milan.

***Dicronychus houschkai* Platia, 2011**

MATERIAL EXAMINED. 2 spcm. ♂ - Iraq: Kurdistan Reg., Duhok-Akre, 15.IV.-1.VI.2010, at light.; Duhok-Akre, Sumel, Erbil, VI-X.2011. (CPG).

DISTRIBUTION. Described from Syria. **New species for Iraq.**

***Coptostethus eggeri* n.sp.**

Fig. 8, 8a, 17, 17a, 48.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, Tenerife, Mercedes Mt, Cruz del Carmen, 31.III.1993, M. Egger leg. (CMHK). 5 Paratypes (4 ♂, 1 ♀) - same data as Ht (3); Mercedes Mt, I.2006, V. Skoupý leg. (CMHK; CPG).

DIAGNOSIS. The species can be compared to *C. obtusus* (Wollaston, 1864) but it is separated for the smaller and slenderer body and particularly for the differences in the sclerites of bursa copulatrix.

DESCRIPTION. Male. Head and pronotum dark-brown, elytra lighter, brown with undefined reddish shadings variable from humeral angles to base of fifth-seventh interstriae or extended to near all the surface; antennae and legs yellowish; covered with dense, semierect, longer towards the elytral apices, yellow-golden pubescence.

Frons flat on the vertex, slightly impressed before the anterior margin, the latter complete and regularly arcuate,

punctures very fine, approximately of the same size with very short, shiny intervals.

Antennae exceeding by two articles the apices of posterior angles of pronotum, moderately serrated from third article on; second article conical, 1.27x shorter than third; third-tenth subtriangular, subequal in length, on average 2.7x longer than wide, last a little longer, subellipsoidal slightly constricted before the apex.

Pronotum very slightly wider than long, widest just behind the middle, convex, sides arcuate, very slightly sinuate before the posterior angles, the latter short, obliquely truncate, not divergent; punctuation uniformly distributed, punctures very fine, approximately of the same size, very finely umbilicate and with extremely short, shiny intervals; suture-like margin obsolete in the anterior half.

Scutellum heart-shaped, as long as wide, deeply emarginate at middle of base, impressed at centre, finely punctured.

Elytra 2.1x longer than pronotum, ovaliform; striae well marked for all its length, interstriae subconvex densely and finely punctured.

Claws dentate at base.

Aedeagus as in fig. 8, 8a (length 1.18 mm).

Female. Very similar to the male with antennae exceeding by only one article the apices of posterior angles of pronotum.

Bursa copulatrix sclerified as in fig. 17, 17a.

Size. Length 6.75- 7.5 mm; width 2.25- 2.62 mm.

ETYMOLOGY. Dedicated to the collector of the majority of specimens, the austrian entomologist, Manfred Egger.

***Coptostethus vilaflorensis* n.sp.**

Fig. 18, 18a, 55.

MATERIAL EXAMINED. Holotype ♀ - Spain: Canary Islands, Tenerife, Vilaflor, 6-7.II.1992, J. Jenes leg. (CMHK). 2 Paratypes ♀ - same data as Ht (CMHK; CPG).

DIAGNOSIS. A species allied to *C. globulicollis* (Wollaston, 1862) for the characters of the bursa copulatrix, it is easily separated by the larger body and shorter antennae.

DESCRIPTION. Female. Colour variable, from entirely dark-ferruginous with very undefined blackish shadings to pronotum nearly entirely blackish; antennae and legs yellowish; covered with moderately dense, short, declined, yellow-golden, pubescence.

Frons convex on the vertex, flattened at the anterior margin, this complete and regularly arcuate; punctuation very dense giving to the surface a dull appearance.

Antennae not reaching for about one article the apices of posterior angles of pronotum, slightly serrated from third article on; second article conical, 1.28x shorter than third; third-tenth subtriangular, subequal in length, on average 2.7x longer than wide, last a little longer, subellipsoidal slightly constricted before the apex.

Pronotum very slightly wider than long, widest just behind the middle, strongly convex, abruptly sloping at sides and base; sides arcuate just sinuate before the apices of posterior angles, the latter short, obliquely truncate, not divergent with a very short carina directed inside; lateral suture-like margins obsolete after the middle; punctuation very fine, uniformly distributed, with very short, on average equal to their own diameters, shiny intervals.

Scutellum heart-shaped, wider than long, emarginate at middle of base and feebly impressed, finely punctured.

Elytra 2x longer than pronotum, convex, ovaliform, striae well marked and punctured, interstriae subconvex, very finely and densely punctured.

Claws dentate at base.

Bursa copulatrix sclerified as in fig. 18, 18a.

Male unknown.

Size. Length 6.85-7.3 mm; width 2.55 mm.

ETYMOLOGY. The name is derived from the locality where the species was collected, Vilaflor.

***Coptostethus petterssoni* n.sp.**

Fig. 9, 9a, 49.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, Tenerife, Agua Mansa, loc. Caldera, 21.III.1988, R. Pettersson leg. (CPG).

DIAGNOSIS. Species comparable with *C. mateui* Cobos, 1970 for the size, length of antennae and punctuation of pronotum it can be separated by the nearly uniform ferruginous colour, pronotum a little wider than long with a suture-like lateral margins very fine and visible only at the median part.

DESCRIPTION. Male. Head and pronotum ferruginous, elytra, scutellum, antennae and legs lighter yellowish; covered with moderate, semierect at sides and apex of elytra, yellow-golden pubescence.

Frons flat on the vertex, slightly impressed at the anterior margin, this regularly arcuate; punctuation very dense with punctures contiguous.

Antennae exceeding by three articles the apices of posterior angles of pronotum, slightly serrated from third article on, second article conical, 1.2x shorter than fourth, fourth-tenth subtriangular, subequal in length, on average 2.8x longer than wide, last a little longer than penultimate, with subparallel sides and slightly constricted at apex.

Pronotum 1.07x wider than long, widest at the middle, strongly convex; sides arcuate, from middle gradually and regularly narrowing to the posterior angles, the latter short, truncate, not divergent with a short carina directed forwards; suture-like lateral margins very fine and visible only at the middle area; punctures very dense, uniformly distributed very slightly umbilicate, nearly or contiguous giving to the surface a dull appearance.

Scutellum heart-shaped, wider than long, emarginate at middle of base and feebly impressed, finely punctured.

Elytra 2.18x longer than pronotum, convex, ovaliform; striae well marked and deeply punctured; interstriae subconvex, finely and densely punctured.

Claws dentate at base.

Aedeagus as in fig. 9, 9a (length 0.92 mm).

Size. Length 5.8 mm; width 2.06 mm.

ETYMOLOGY. The species is dedicated to the collector, the swedish entomologist, Rogers Pettersson.

***Coptostethus palmensis* Cobos, 1970**

Fig. 10, 10a, 50.

MATERIAL EXAMINED. 7 spcm. ♂ - Spain: Canary Islands, La Palma, Montana de Tagoja (28°43'16"N, 17°47'07"W), m 1052, 30.I.2013, G. McShort leg.; La Palma, Las Caletas

(28°28'45"N, 17°50'02"W), m 333, 30.I.2013, G. McShort leg. (CMHK).

NOTES. The species was described only on a female specimen. The male is very similar but with longer antennae exceeding by two articles the apices of posterior angles of pronotum. A good character to separate this species is given by the presence on the pronotum of a vestige of mid-longitudinal depression from middle to the basal slope, sometimes prolonged to the anterior third.

Aedeagus as in fig. 10, 10a (length 1.05 mm).

Size. Length 6.2- 6.5; width 2.12 mm.

ECOLOGICAL NOTES. Collected on *Chamaecytisus proliferus* (L.) Link

***Coptostethus bonitaensis* n.sp.**

Fig. 11, 11a, 19, 19a, 51.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, La Palma, Montana Tagoja (28°43'16"N, 17°47'07"W), m 1052, 30.I.2013, G. McShort leg. (CMHK). 2 Paratypes ♂♀ - same data as HT (CMHK; CPG).

DIAGNOSIS. Species comparable with *C. palmensis* Cobos, 1970 for the similar size, it is separated for the uniform colour of body, shorter antennae and sclerites of bursa copulatrix.

DESCRIPTION. Male. Entirely dark-ferruginous with blackish sparse shadings; antennae and legs yellowish; covered with dense, long, semierect, yellow-fulvous pubescence.

Frons flat on the vertex, slightly impressed at the anterior margin, this regularly arcuate; punctuation very dense with punctures slightly umbilicate with very short intervals or contiguous.

Antennae exceeding by one article the apices of posterior angles of pronotum, slightly serrated from third article on; second article conical, 1.2x shorter than fourth, fourth-tenth subtriangular, subequal in length, on average 2.8x longer than wide, last a little longer than penultimate, with subparallel sides and slightly constricted at apex.

Pronotum as long as wide, widest at middle, convex, with a vestige of short and narrow mid-longitudinal impressed line at basal slope; sides arcuate, from middle narrowing and very slightly sinuate before the posterior angles, the latter short, obliquely truncate, not divergent, with a very short carina directed forwards; suture-like lateral margins regularly arcuate, obsolete at the anterior third.; punctuation very dense, uniformly distributed, punctures very slightly umbilicate with very short shiny intervals.

Scutellum heart-shaped, just wider than long, emarginate at middle of base, flat and finely punctured.

Elytra 2.1-2.2x longer than pronotum, convex; sides regularly and moderately arcuate widest at middle or just behind; striae well marked and deeply punctured interstriae subconvex, finely and densely punctured.

Claws dentate at base.

Aedeagus as in fig. 11, 11a (length 1.15 mm).

Female larger than male with antennae just shorter only reaching the apices of posterior angles of pronotum and sides of elytra more dilated behind the middle.

Bursa copulatrix sclerified as in fig. 19, 19a.

Size. Length 6.25-6.75 mm, width 2.0-2.1 mm (♂); length 7.5 mm, width 2.68 mm (♀).

ETYMOLOGY. The name is derived from "Isla Bonita" (nice island) a name given to La Palma.

***Coptostethus nemethi* n.sp**

Fig. 12, 12a, 20, 20a, 52.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, La Palma, Las Caletas (28°28'45"N, 17°50'02"W), m 333, 30.I.2013, G. McShort leg. (CMHK). 9 Paratypes (8♂, 1♀), same data as HT (4); El Tablado, El Portal (28°50'08"N, 17°52'34"W), m 249, 27.I.2013, G. McShort leg. (3); Pico la Cruz, 2.VIII.1987, G.B. Rafael leg. (2) (CMHK; CPG).

DIAGNOSIS. A species allied to *C. palmensis* Cobos, 1970 for the very similar sclerites of bursa copulatrix, it easily separated by the much more smaller body, the shorter antennae and the absence of any vestige of mid-longitudinal depression on the pronotum.

DESCRIPTION. Male. Colour variable, from entirely dark ferruginous, generally with head and pronotum darker than elytra to nearly entirely blackish with elytral humera and centre of scutellum reddish with intermediate forms; antennae and legs always yellowish; covered with moderate, short and partially erect, yellow-golden pubescence.

Frons slightly convex on the vertex, just impressed at the anterior margin, this regularly arcuate; punctuation very dense with punctures umbilicate, contiguous giving to the surface a dull appearance.

Antennae exceeding by near two articles the apices of posterior angles of pronotum, slightly serrated from third article on; second article conical, 1.2x shorter than fourth, fourth-tenth subtriangular, subequal in length, on average 2.8x longer than wide, last a little longer than penultimate, with subparallel sides and slightly constricted at apex.

Pronotum just wider than long, widest at middle, strongly convex, abruptly sloping at sides and at base; sides arcuate, from the middle narrowing to base and slightly sinuate before the posterior angles, the latter short, obliquely truncate, not divergent, with a very short carina directed forwards; suture-like lateral margins regularly arcuate, obsolete at the anterior third; punctuation very dense, uniformly distributed, punctures deep, simple with very short, shiny intervals.

Scutellum heart-shaped, just wider than long, emarginate at middle of base, feebly impressed and finely punctured.

Elytra 1.96-2x longer than pronotum, very convex, ovaliform; striae well marked and deeply punctured; interstriae subconvex, finely and densely punctured.

Claws dentate at base.

Aedeagus as in fig. 12, 12a (length 1.0 mm).

Female. Very similar to the male only with the antennae shorter exceeding by one article the apices of posterior angles of pronotum.

Bursa copulatrix sclerified as in fig. 20, 20a.

Size. Length width 5.2-6.1 mm; width 1.87-2.06 mm.

ETYMOLOGY. The species is dedicated to the hungarian colleague Tamas Nemeth, young collaborator in the study of the click-beetles.

***Coptostethus opaculus* n.sp.**

Fig. 13, 13a, 53.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, Gomera, Breza de Cumbre, 16.VIII.2002, Klemm & Wisser leg. (CPG).

DIAGNOSIS. Species immediately separated from all the known from Gomera Island for the smaller size and the opacity of the pronotal surface.

DESCRIPTION. Male. Head and pronotum black, elytra dark brown, antennae and legs yellowish; covered with dense, long, partially erect, yellow-golden pubescence.

Frons slightly convex on the vertex, just impressed at the anterior margin, this regularly arcuate; punctuation very dense with punctures umbilicate, contiguous giving to the surface a dull appearance.

Antennae exceeding by two articles the apices of posterior angles of pronotum, slightly serrated from third article on; second article conical, 1.2x shorter than fourth, fourth-tenth subtriangular, subequal in length, on average 2.5x longer than wide, last a little longer than penultimate, with subparallel sides and slightly constricted at apex.

Pronotum as long as wide, widest at middle, convex, abruptly sloping at base and sides; sides arcuate, from the middle regularly narrowing to the posterior angles, these short, truncate, not divergent, with a very short carina directed forwards; suture-like lateral margins regularly arcuate, obsolete at the anterior third.; punctuation very dense, uniformly distributed, punctures umbilicate, contiguous giving to the surface a dull appearance.

Scutellum heart-shaped, just wider than long, emarginate at middle of base, feebly impressed and finely punctured.

Elytra 2x longer than pronotum, convex, sides widest just behind the middle, striae well marked and deeply punctured; interstriae subconvex, finely and densely punctured.

Claws dentate at base.

Aedeagus as in fig. 13, 13a (length 0.93 mm).

Size. Length 5.5 mm; width 2.0 mm.

ETYMOLOGY. The name is derived from the opaque appearance of the surface of pronotum due to the very dense and contiguous punctures.

Coptostethus skoupyi n.sp.

Fig. 14, 14a, 21, 21a, 54.

MATERIAL EXAMINED. Holotype ♂ - Spain: Canary Islands, Hierro, Sabinosa, m 100, 30.I.2006, V. Skoupy leg. (CMHK). 1 Paratype ♀ - Hierro, Echedo, 31.I.2006, V. Skoupy leg. (CMHK).

DIAGNOSIS. Species comparable with *C. hierrensis* Franz, 1980 for the small size it is separated for the lighter colour and the longer antennae in the male and female.

DESCRIPTION. Male. Entirely yellow-ferruginous with head and pronotum a little darker than elytra; antennae and legs yellow-testaceous; covered with dense, partially erect yellow-golden pubescence.

Frons slightly convex on the vertex, just impressed at the anterior margin, this regularly arcuate; punctuation very dense with punctures umbilicate, contiguous giving to the surface a dull appearance.

Antennae exceeding by three articles the apices of posterior angles of pronotum, slightly serrated from third article on; second article conical, 1.2x shorter than fourth, fourth-tenth subtriangular, subequal in length, on average 2.5x longer than wide, last a little longer than penultimate, with subparallel sides and slightly constricted at apex.

Pronotum as long as wide, widest at middle, convex, abruptly sloping at sides, more gradually sloping at base with a vestige of mid-longitudinal narrow depression from before to the basal slope; sides arcuate, from middle narrowing and slightly sinuate before the posterior angles, the latter short, truncate, not divergent, with a very short carina directed forwards; suture-like lateral margins regularly arcuate, obsolete after the middle; punctuation uniformly distributed, punctures fine, simple, with very short intervals.

Scutellum heart-shaped, just wider than long, emarginate at middle of base, feebly impressed and finely punctured.

Elytra 2.1x longer than pronotum, convex, ovaliform; striae well marked and deeply punctured; interstriae subconvex, finely and densely punctured.

Claws dentate at base.

Aedeagus as in fig. 14, 14a (length 1.0 mm).

Female. Body a little larger but very similar to the male with shorter antennae exceeding by about two articles the apices of posterior angles of pronotum.

Bursa copulatrix sclerified as in fig. 21, 21a.

Size. Length 4.75-5.31 mm; width 1.68-1.87 mm.

ETYMOLOGY. The species is dedicated to the collector, Vladimír Skoupy, Cilina village, Czech republic specialist of Coleoptera Carabidae.

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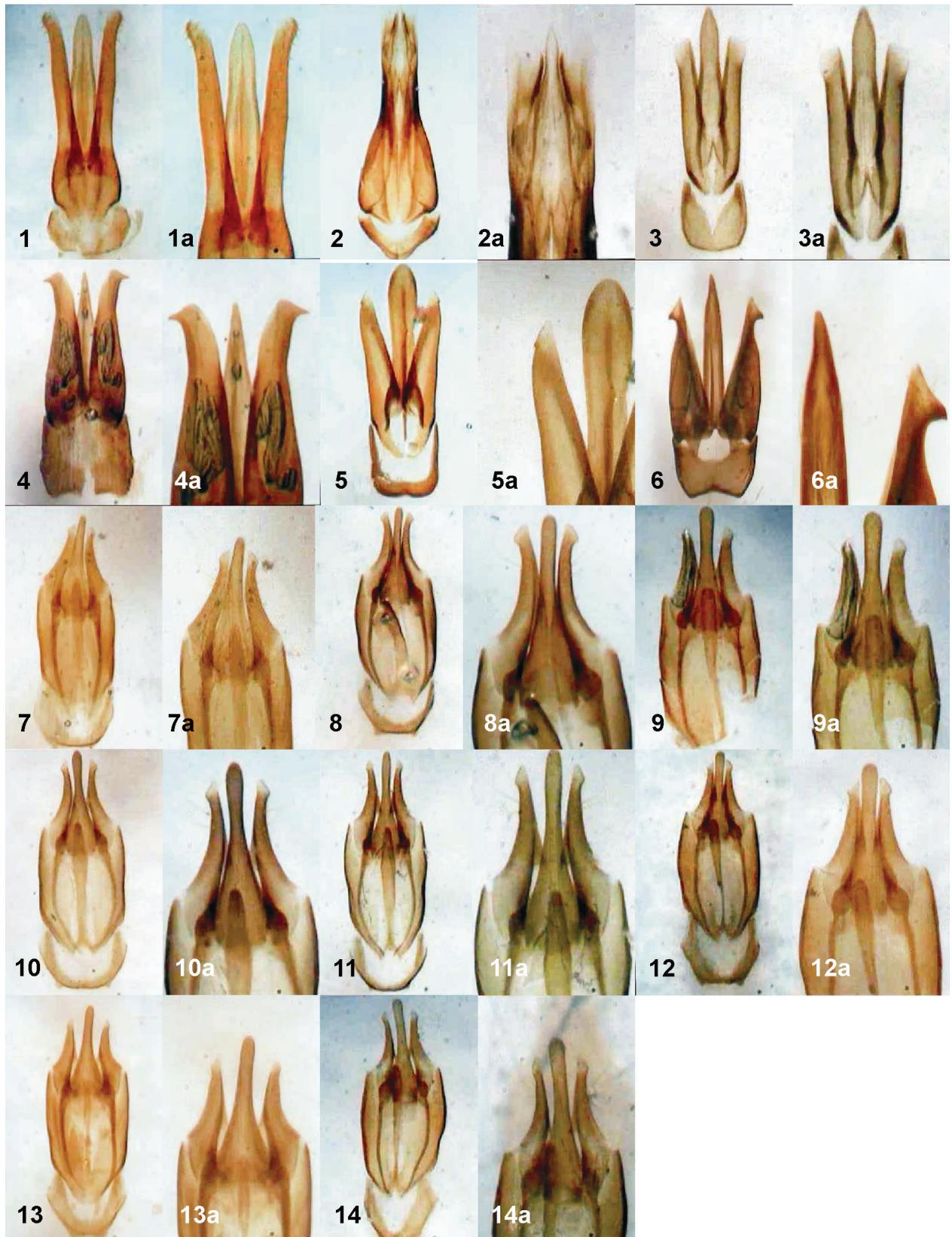


Fig. 1- 14. Male genitalia in dorsal view. **1, 1a.** *Conoderus vartiani* n.sp.; **2, 2a.** *Ligmargus busii* n.sp.; **3, 3a.** *Hypnoidus roccai* n.sp.; **4, 4a.** *Athous (Orthathous) orbicus* n.sp.; **5, 5a.** *Agriotes propleuralis* Platia & Gudenzi; **6, 6a.** *Ampedus benellii* n.sp.; **7, 7a.** *Cardiophorus pakistanicus* n.sp.; **8, 8a.** *Coptostethus eggeri* n.sp.; **9, 9a.** *Coptostethus petterssoni* n.sp.; **10, 10a.** *Coptostethus palmensis* Cobos; **11, 11a.** *Coptostethus bonitaensis* n.sp.; **12, 12a.** *Coptostethus nemethi* n.sp.; **13, 13a.** *Coptostethus opaculus* n.sp.; **14, 14a.** *Coptostethus skoupyi* n.sp.

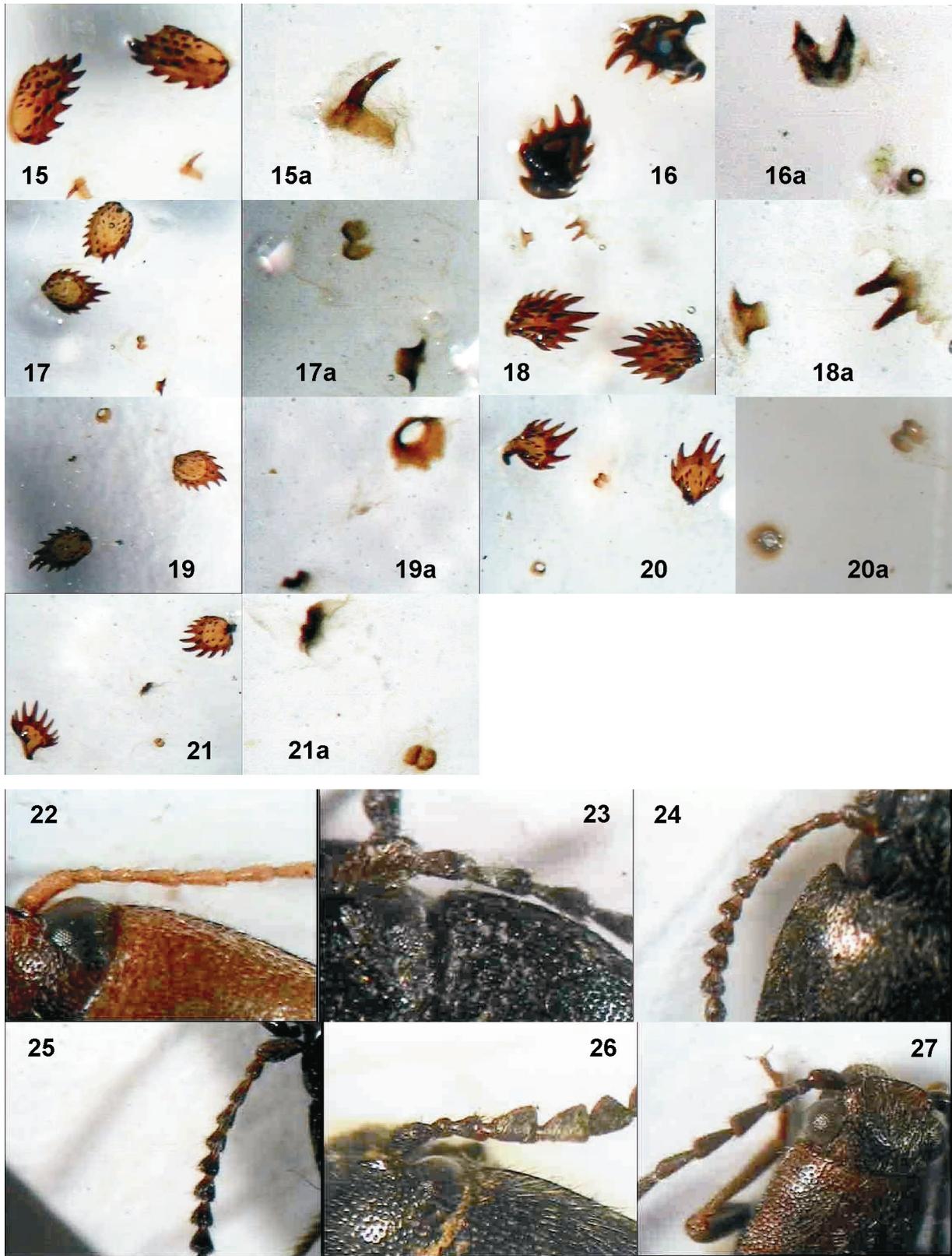


Fig. 15-21. Sclerites of bursa copulatrix. **15, 15a.** *Dicronychus pesarinii* n.sp.; **16, 16a.** *Cardiophorus hameti* n.sp.; **17, 17a.** *Coptostethus eggeri* n.sp.; **18, 18a.** *Coptostethus vilaflorensis* n.sp.; **19, 19a.** *Coptostethus bonitaensis* n.sp.; **20, 20a.** *Coptostethus nemethi* n.sp.; **21, 21a.** *Coptostethus skoupyi* n.sp. **Fig. 22-27.** First or total articles of antennae. **22.** *Conoderus vartiani* n.sp.; **23.** *Ligmargus busii* n.sp.; **24.** *Hypnoidus roccai* n.sp.; **25.** *Hypnoidus xiningensis* n.sp.; **26.** *Ampedus benellii* n.sp.; **27.** *Athous (Orthathous) orobicus* n.sp.

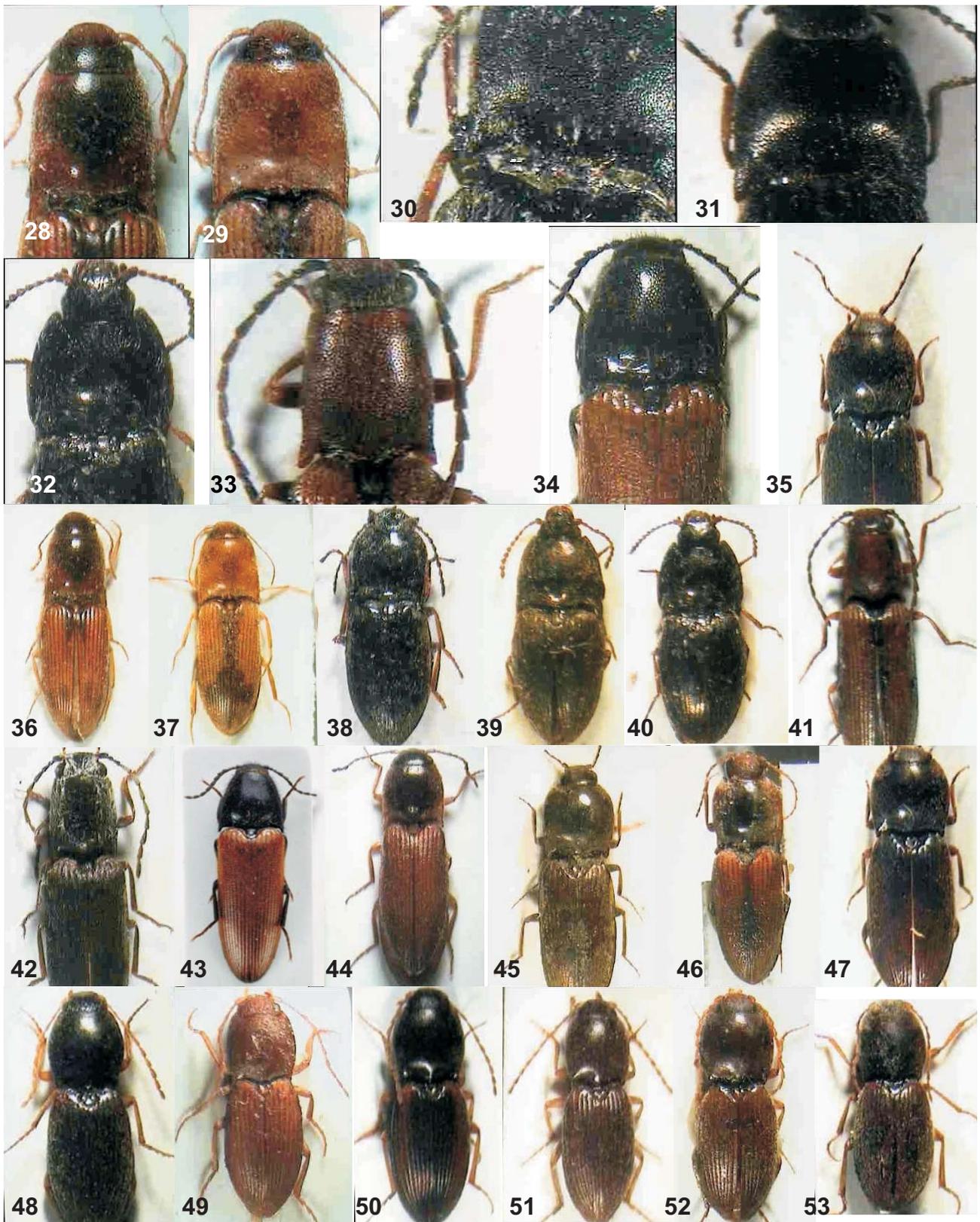


Fig. 28-35. Particular of profile, base and/or posterior angles of pronotum or of elytra. 28. *Conoderus kasyi* n.sp.; 29. *Conoderus vartiani* n.sp.; 30. *Ligmargus busii* n.sp.; 31. *Hypnoidus roccai* n.sp.; 32. *Hypnoidus xiningensis* n.sp.; 33. *Athous (Orthathous) orobicus* n.sp.; 34. *Ampedus benellii* n.sp.; 35. *Dicronychus pesarinii* n.sp. Fig. 36-55. Habitus in total or partial view. 36. *Conoderus kasyi* n.sp.; 37. *Conoderus vartiani* n.sp.; 38. *Ligmargus busii* n.sp.; 39. *Hypnoidus roccai* n.sp.; 40. *Hypnoidus xiningensis* n.sp.; 41. *Athous (Orthathous) orobicus* n.sp.; 42. *Athous (s. str.) obsoletus* (Illiger); 43. *Ampedus benellii* n.sp.; 44. *Agriotes flavobasalis* Heyden; 45. *Cardiophorus hameti* n.sp.; 46. *Cardiophorus pakistanicus* n.sp.; 47. *Dicronychus pesarinii* n.sp.; 48. *Coptostethus eggeri* n.sp.; 49. *Coptostethus petterssoni* n.sp.; 50. *Coptostethus palmensis* Cobos; 51. *Coptostethus bonitaensis* n.sp.; 52. *Coptostethus nemethi* n.sp.; 53. *Coptostethus opaculus* n.sp.; 54. *Coptostethus skoupyi* n.sp.; 55. *Coptostethus vilaflorensis* n.sp.

