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Descriptions of fourteen new species of click beetles from the Palearctic Region, with chorological notes
(Insecta Coleoptera Elateridae)

Riassunto

[Descrizione di quattordici nuove specie di elateridi della regione paleartica, con note geonemiche (Insecta Coleoptera Elateridae)]

L’esame di materiale ricevuto in studio da diversi colleghi e proveniente da molte regioni dell’area paleartica, consente di descrivere 14 nuove specie, di allargare la geonemia di molte altre ed in particolare di annoverare una nuova specie per la fauna italiana, accertata al momento solo per il Piemonte: Sericus clarus Gurjeva, 1972, e infine di definire una nuova combinazione generica per una specie del lontano oriente russo: Cardiophorus curtulus Motschulsky, 1860, trasferito al genere Paracardiophorus Schwarz, 1895.

Le specie nuove sono di seguito elencate e definite.

*Agriotes crassus* n. sp. dell’Uzbekistan, può essere confrontato con *A. kirghizicus* Khnzorian, specie attesta, per l’aspetto generale e la colorazione, si distingue essenzialmente per la base dello scutello subrettilinea e le ali atrofiche non atte al volo.

*Agriotes hatayensis* n. sp. della Turchia sud-orientale, appartiene al gruppo dell’*A. nuceus* Fairmaire e può essere confrontato con *A. conspicuus* Schwarz ma è più piccolo e stretto, ha le antenne più corte superanti con solo 2-2,5 articoli gli angoli posteriori del pronoto e per la forma diversa dei parmeri dell’edeago.

*Ampedus paveli* n. sp. della Bulgaria sud-occidentale, si può confrontare con *A. triangulum* (Dorn) per l’aspetto generale, il colore e la forma del terzo articolo delle antenne, ma si può separare per il pronoto meno convesso con punteggiatura più fine, carena degli angoli posteriori meno marcata ed edeago più snello.

*Athous* (*Neonomopleus*) *sofiae* n. sp. della Spagna centrale (Madrid) è simile a *Athous* (*Neonomopleus*) *suarezi* Platia & Gudenzi ma si può distinguere per il pronoto quadrangolare, le antenne relativamente più corte, l’apice dei parmeri dell’edeago.

*Athous* (*Neonomopleus*) *chiarae* n. sp. della Spagna centrale (Madrid) e della stessa località si distinguono dal precedente per corpo più stretto, il pronoto appena più lungo che largo, le elitre più lungamente parallele e l’apice dei parmeri dell’edeago.

*Athous* (*Neonomopleus*) *fernandensis* n. sp. della stessa località dei due precedenti si avvicina a *A. (N.) sofiae* n. sp. per l’aspetto generale ma si distingue essenzialmente per il diverso rapporto di lunghezza dei primi articolari antennali, il pronoto poco più lungo che largo con spina agli angoli posteriori più acuta, ultimo sternite addominale leggermente sinuato all’apice, parmeri edeagici.

*Athous* (*Orthathous*) *kozufensis* n. sp. della Macedonia è vicino ad *Athous* (*Orthathous*) *ziegleri* Zeising & Brunne della Grecia per l’aspetto generale, la taglia e il colore ma si distingue per la
punteggiatura del pronoto più forte con punti nettamente ombelicati e per l’apice dei parameri estremamente acuti.

_Athous (Orthathous) sandanskiensis_ n. sp. della Bulgaria sud-occidentale si avvicina a _Athous (Orthathous) freudei_ Platia della Grecia e della Macedonia per i tarsi con gli articoli di lunghezza regolarmente decrescente ma si può separare per il corpo più corto e tozzo, le antenne più corte con articoli più spessi e i parameri dell’edeagi più distintamente sinuati prima dell’apice.

_Athous (Orthathous) solitarius_ n. sp. della Grecia si avvicina sempre ad _Athous (Orthathous) freudei_ Platia per la conformazione degli articoli dei tarsi, si distingue per le antenne più corte superanti appena gli angoli posteriori del pronoto, con gli articoli più spessi e per i parameri dell’edeago.

_Athous (Orthathous) tadzhikistanicus_ n. sp. del Tadzhikistan non può essere paragonato con alcuna specie della regione perché non sono note specie del sottogenere _Orthathous_ ad est dell’Iran ed appare sorprendente la presenza di questa nuova entità così orientale, un carattere molto interessante per distinguere la specie risiede nell’ultimo sternite addominale che è leggermente sinuato all’apice.

_Cardiophorus gianassoi_ n. sp. dell’Iran si avvicina a _C. magnanii_ Platia, Furlan & Gudenzi per l’addome non uniformemente colorato, ma mentre nella specie menzionata solo l’ultimo sternite addominale è giallastro nella nuova specie sono giallastri gli ultimi due, inoltre la punteggiatura del pronoto è estremamente fine e sparsa e gli apici dei parameri edeagici sono uncinati.

_Cardiophorus golestanicus_ n. sp. dell’Iran si avvicina a _C. zeisingi_ Platia della Turchia per il terzo articolo antennale seghettato e con la scultura dei successivi e per l’apice dello scutello arrotondato, si distingue per il secondo articolo delle antenne più allungato, per il terzo uguale al quarto, i lati del pronoto più arcuati, lo scutello piano, le elitre più allungate, i parameri dell’edeago.

_Selatosomus (s. str.) kroliki_ n. sp. della Turchia occidentale appartiene al gruppo del _S. gravidus_ (Germar) si distingue per il corpo opaco, il terzo articolo delle antenne raccorciato, più corto del quarto, l’apice degli angoli posteriori del pronoto divergente e per i parameri dell’edeago.

_Selatosomus (s. str.) maculatus_ n. sp. della Turchia occidentale appartiene sempre al gruppo del _S. gravidus_ (Germar), si distingue da esso per alcuni caratteri del _S. kroliki_ n. sp. e da questo per il terzo articolo delle antenne più allungato uguale al quarto, per l’apice degli angoli posteriori del pronoto non divergente, per l’edeago.

**Abstract**

[Descriptions of fourteen new species of click beetles from the Palearctic Region, with chorological notes (Insecta Coleoptera Elateridae)]

Fourteen new species of click-beetles belonging to the genera _Agriotes, Ampedus, Athous (Neonomopleus), Athous (Orthathous), Cardiophorus and Selatosomus_ are described from Bulgaria, Greece, Iran, Macedonia, Spain, Tadzhikistan, Turkey and Uzbekistan. New chorological records for species of the genera _Aeoloderma, Conoderus, Sericus, Agriotes, Ectinus, Diacanthous, Prosternon, A. (Haplathous), A. (Orthathous)_ and _Cardiophorus_ are given. _Cardiophorus curtulus_ Motschulsky, 1860 is transferred to the genus _Paracardiophorus_ Schwarz, 1895.

Key words: Elateridae, _Agriotes, Ampedus, Athous (Neonomopleus), Athous (Orthathous), Cardiophorus, Paracardiophorus, Selatosomus_, new species, new distributional records, new combination, Palearctic Region.

**Introduction**

By the courtesy of several colleagues I had the opportunity to examine a series of
click-beetles collected in various countries (Bulgaria, Greece, Iran, Macedonia, Spain, Tadzhikistan, Turkey and Uzbekistan). As a result of these studies fourteen new species are described. For another seventeen species new distributional records are given and a new generic combination is proposed for a species of the genus Cardiophorus Eschscholtz. The genus Conoderus Eschscholtz is recorded from Europe (Spain) for the first time.

Material and methods

Body measurements. Body length is measured along the midline from the anterior margin of the frons to the apex of the elytra; the width is measured across the broadest part of the entire beetle.

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

Abbreviations. The names of institutions, museums and private collections containing material studied are abbreviated as follows:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CHCB</td>
<td>Houska coll., České Budějovice (Czech Republic)</td>
</tr>
<tr>
<td>CKHK</td>
<td>Kopecky coll., Hradec Králové (Czech Republic)</td>
</tr>
<tr>
<td>CKK</td>
<td>Królik coll., Kluczbork (Poland)</td>
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<tr>
<td>CMHK</td>
<td>Mertlik coll., Hradec Králové (Czech Republic)</td>
</tr>
<tr>
<td>CPG</td>
<td>Platia coll., Gatteo (Italy)</td>
</tr>
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<td>CRG</td>
<td>Riese coll., Genoa (Italy)</td>
</tr>
<tr>
<td>CSH</td>
<td>Svanda coll., Holice (Czech Republic)</td>
</tr>
<tr>
<td>MCSNG</td>
<td>Museo Civico di Storia Naturale (Dr R. Poggi), Genoa (Italy)</td>
</tr>
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The suprageneric classification follows SÁNCHEZ-RUIZ (1996).

Tribe Oophorini Gistel, 1856

_Aeoloderma crucifer_ (Rossi, 1790)


Conoderus posticus (Eschscholtz, 1822) (Figs 34, 40, 54)

Material examined. 1 spcm ♀ - Spain: Vera, Almeria, 2.VII.2009, J. I. López-
Colón (CPG). This species, described from Brasil, is recorded from Mexico and other Central and South American countries. Known to have been introduced to the Azore Islands, it is new to Spain. After *Heteroderes vagus* (Candèze), another South American species recorded from Spain and Portugal, where it seems to be well established, this is the second neotropic species introduced to Spain and the first species of the genus *Conoderus* Eschscholtz known from the continental Europe.

Tribe **Elaterini** Leach, 1815

*Sericus clarus* Gurjeva, 1972  
(Figs 1, 1a, 20, 41, 55)

**Material examined.** 2 spcm ♂ - **Italy**: Piemonte, Rovasenda, Baraggia (VC), 16.V.1982, R. Pescarolo. **Germany**: Friedland, Astarhon. (CPG).  
This species, described from W Siberia, is also known from Austria, Czech Rep., France, Slovakia and Switzerland (*CATE*, 2007).  
**New to Italy and Germany.**

*Sericus fujisanus* (Lewis, 1894)

**Material examined.** 1 spcm ♂ – **Russia**: S Sakhalin, Chekhova Mt, 15-25. VI.1998, J. Louda (CRG).  
**Distribution.** Japan; Russian Far East (*CATE*, 2007). **New to Sakhalin Isl.**

Tribe **Agriotini** Champion, 1894

*Agriotes crassus* n. sp.  
(Figs 18, 22, 56)

**Diagnosis.** A species that can be compared with *A. kirghisicus* Khnzorian, 1970, from Kirghisztan, an apterous species, as to general shape and colour, it can be separated by the scutellum not emarginate at the base and the presence of athrophied wings.

**Material examined.** Holotype ♀ - **Uzbekistan**: W Tian Shan, Hodjikent vill., 19.V.2007, V. Gurko (CRG don. MCSNG). 2 Paratypes ♀ - same data as Ht (CPG; CRG).  
**Description.** Female. Moderately shiny; entirely blackish or with elytra lighter dark brown; antennae and legs ferrugineous; covered with dense, recumbent, yellow-fulvous vestiture.  
Frons convex on vertex, flat in the front, suprantennal carinae moderate, not reaching the anterior margin; punctures dense, with very short or contiguous intervals. Antennae short, not reaching apicis of posterior angles of pronotum by about 2.5 articles; second article subcylindrical, slender, a little longer than third; second and third taken together twice as long as fourth; fourth-tenth subtriangular, 1.5x longer than wide; last just longer than penultimate, rhomboidal.
Pronotum as long as wide, widest at middle, strongly convex, sloping abruptly at sides, nearly vertically at base with a mid-longitudinal impressed line at basal slope, that is sometimes prolonged to the middle; sides subparallel from middle to apicis of posterior angles, the latter long, acuminate, not divergent, with a carina subparallel to lateral margin; punctures dense, uniformly distributed on entire surface, contiguous or with very short and moderately shagreened interstices. Scutellum shield-shaped, as long as wide, ridged at base, densely punctured. Elytra 2.3x longer than pronotum and as wide as it at the base, strongly convex on disc, ovoidal, widest at middle; striae well marked and distinctly punctured; interstriae flat, densely and roughly punctured. Wings athrophied, unable to fly. Bursa copulatrix sclerified as in fig. 18. Male unknown. Size. Length 10.5-11.3 mm; width 3.5-3.8 mm. 

**Etymology.** The name is referred to the stout, convex and arcuate shape of the body.  

*Agriotes hatayensis* n. sp. (Figs 2, 2a, 21, 57)  

**Diagnosis.** A species of *A. nuceus* Fairmaire group that can be compared with *A. conspicus* Schwarz but it is separable by the smaller size, shorter antennae and shape of paramera of male genitalia. 

**Material examined.** Holotype ♂ - Turkey: Hatay Prov., Topaktas village env., 1170 m, 21-22.VII.2006, R. Królik, at light (CPG). 

**Description.** Male. Moderately shiny; entirely brown with ferrugineous shadings; antennae, anterior margin of frons, disc of scutellum, base of elytra, legs, lighter, yellow-ferrugineous; covered with dense yellow-golden, recumbent, vestiture. Head with eyes as wide as anterior margin of pronotum, frons flat, superantennal carinae interrupted immediately before the anterior margin; punctures coarse, simple or vaguely umbilicate, contiguous. Antennae exceeding apicis of posterior angles of pronotum by 2.5 articles, second segment subcylindrical, a little longer than wide, third subconical, slightly longer than second, second and third taken together as long as fourth; fourth-tenth sub-triangular, slender, 2.8-3x longer than wide, last longer than penultimate, with subparallel sides, rounded at apex. Pronotum 1.15x wider than long, widest at apicis of posterior angles, regularly and strongly convex, with a short, very narrow, mid longitudinal impressed line at basal slope; sides weakly concave at middle, dilated at anterior third, distinctly sinuate before the posterior angles, the latter long, acute, clearly divergent with a fine and elevated carina directed medially; lateral margin complete from base to anterior margin; punctures rather uniformly distributed, deep on disc, simple to slightly umbilicate with very short shiny interstices, gradually denser to sides, clearly umbilicate and contiguous at lateral extremities.
Scutellum shield-shaped, flat, sinuate at middle of sides, densely punctured. Elytra 3.2x longer than pronotum and as wide as it at the base, convex; sides subparallel from base to middle, barely dilated behind the middle, then narrowing regularly, apicis rather acute and feebly divaricate; striae regularly marked and punctured; interstriae flat, very densely and roughly punctured. Aedeagus as in figs 2, 2a (length 1.46 mm).

Female unknown.
Size. Length 13 mm; width 3.62 mm.

**Etymology.** The name is derived from Hatay, the province where the beetle was caught.

**Agriotes modestus** Kiesenwetter, 1858

**Material examined.** 1 spcm. ♂ - Turkmenistan: Kopetdag, Garygala, V.1994, J. Miadeaski (CRG).

**Distribution.** SE Europe, Syria, Iran, Kazachstan (CATE, 2007). New to Turkmenistan.

**Agriotes oxi anus** Iablokoff-Khnzorian, 1970


**Distribution.** Afghanistan, Tadzhikistan, Turkmenistan (CATE, 2007). New to Uzbekistan.

**Ectinus puberulus** (Miwa, 1928) (Figs 3, 3a, 58)

**Material examined.** 1 spcm. ♂ - Russia: Kurili Islands, Kunashir Island, Xejolonvina vulcan, 11.VI.1983, J. Louda (CRG).

**Distribution.** Japan (CATE, 2007). New to Russia: Kurile Islands.

Tribe *Prosternini* Gistel, 1856

**Selatosomus (s. str.) kroliki** n. sp. (Figs 4, 4a, 23, 23a, 42, 50, 52, 59)

**Diagnosis.** A species of the *S. gravidus* (Germar) group, it can be separated by the dull body, short third articles of antennae, diverging apicis of posterior angles of pronotum and the aedeagus.

**Material examined.** Holotype ♂ - Turkey: Izmir Prov., 10 km NE of Ödemis, 1050 m, 12.V.2005, R. Królik (CKK). 2 Paratypes ♂ - Izmir Prov., 10 km NE of Ödemis, Gölcuk env., 1156 m, 16.V.2008, R. Królik (CKK; CPG; ).

**Description.** Male. Rather dull; unicoloured; entirely blackish-bronzed with undefined greenish reflexions on elytra; antennae blackish; legs dark brown; covered with short, dense, recumbent, yellowish vestiture.
Head with eyes as wide as anterior margin of pronotum; frons moderately and irregularly impressed from middle to anterior margin, the latter fused with clypeus; at middle punctures coarse, contiguous and confluent.

Antennae with thickened articles, short, not reaching apicis of posterior angles of pronotum by about two articles; second segment small, globous, as long as wide, third conical, twice as long as second and a little shorter than fourth; fourth triangular 1.4x longer than wide, fifth-tenth more serrate, as long as wide; last a little longer than penultimate, ovalar.

Pronotum 1.35-1.4x wider than long widest at apicis of posterior angles, strongly convex, sloping abruptly at sides and base; sides very arcuate, strongly sinuate before the posterior angles, the latter long, rather acute, clearly divergent with short carina directed medially; lateral margin complete and well visible in dorsal view; puncturation rather uniformly distributed, punctures deep, simple to slightly umbilicate, nearly contiguous at center of disk, with very short intervals, contiguous and confluent at lateral sides.

Scutellum quadrangular, flat, densely punctured. Elytra 2.8-2.9x longer than pronotum and as wide as it at the base, convex, widest behind the middle, striae well marked, indistinctly punctured; interstriae moderately convex, roughly punctured.

Prosternal process immediately and gradually bent inwards behind the procoxal cavities, cuneiform, deeply impressed laterally.

Aedeagus as in fig. 4, 4a (length 2 mm).

Female unknown.

Size. Length 13-15 mm; width 4.7-5.8 mm.

Etymology. The species is dedicated to the collector Mr R. Królik, specialist of Col. Buprestidae and collector of the specimens.

**Selatosomus (s. str.) maculatus** n. sp. (Figs 5, 5a, 24, 24a, 43, 51, 53, 60)

**Diagnosis.** A species of the *S. gravidus* (Germar) group, it can be separated from *S. kroliki* n. sp. by the more elongate third antennal article, not divergent apicis of posterior angles of pronotum and the aedeagus and from *S. gravidus* by the dull body, third article of antennae as long as fourth and the aedeagus.


**Description.** Male. Rather dull particularly on elytra; head, antennae, pronotum and scutellum blackish, elytra blackish with greenish reflexions and with an undefined ferrugineous macula from third to sixth elytral intervals at anterior third behind the scutellum; legs brownish; covered with moderate, recumbent, yellowish vestiture.

Head with eyes as wide as anterior margin of pronotum, frons irregularly and shallowly impressed from vertex to anterior margin, the latter evanescent and fused with clypeus at middle; punctures very coarse, contiguous or confluent.
Antennae with thickened articles, short, not reaching apicis of posterior angles of pronotum by about two segments; second article small, subcylindrical, globous, as long as wide, third conical, twice as long as second and as long as fourth which is triangular, 1.4x longer than wide; fifth-tenth triangular nearly as long as wide, last just longer than penultimate, regularly ovaliform.

Pronotum 1.3x wider than long, widest at apicis of posterior angles, strongly and nearly regularly convex, sloping abruptly at sides and base; sides very arcuate, gently sinuate backwards before the posterior angles, the latter long, acute, non divergent at apex, with a short carina directed medially, lateral margin complete and well visible from base to apex in a dorsal view; punctuation coarse and uniformly distributed on entire surface, slightly umbilicate, contiguous and often confluent at sides.

Scutellum quadrangular, flat, densely punctured. Elytra 2.9x longer than pronotum and as wide as it at the base, convex; sides widest behind the middle; striae impressed, indistinctly punctured, interstriae subconvex densely punctured and with rough surface.

Prosternal process immediately and regularly bent inwards behind the procoxal cavities, cuneiform, not emarginate at apex.

Aedeagus as in figs 50, 50a (length 1.93 mm).

Female unknown.

Size. Length 12.3 mm; width 4.5 mm.

Etymology. The name is derived from the macula on the anterior third of elytra.

**Diacanthous ainu** (Miwa, 1928)


**Distribution.** Japan (**CATE**, 2007). **New to Russia.**

**Prosternon chrysocomum** (Germar, 1843)

**Material examined.** 1 spcm. ♀ - **Turkey**: Edirne prov., N of Koru Dagi Geç., 265 m, 8.V.2005, R. Krolik (CKR).

**Distribution.** Bulgaria, Czechia, Hungary, Greece, Romania, Slovakia (**CATE**, 2007). **New to Turkey.**

Tribe **Dendrometrini** Gistel, 1856

**Athous (Haplothous) rameli** Platia & Gudenzi, 2009

**Material examined.** 1 ♂ - **Bulgaria** SW: Belasica Mts., Belasica chalet env., 697 m, 21.VI.2007, T. Kopecky (CKHK).

**Distribution.** Described from Kerkini wetland (Greece). **New to Bulgaria.**
**Athous (Orthathous) kozufensis n. sp.** Figs 6, 6a, 25, 37, 44, 61.

**Material examined.** Holotype ♂ - Macedonia: Kožuf Mts., ski center Kožuf, 5.VII.2009, J. Mertlik (CHKM). 10 Paratypes ♂ - same data as HT (CDZ; CMHK; CPG).

**Diagnosis.** A species resembling *A. (Orthathous) zieglieri* Zeising & Brunne, 2005 from Greece (Thessalia) by the general shape, colour and size; it can be separated by the strong umbilicate punctures of pronotum and the more acute apicis of paramera in aedeagus.

**Description.** Male. Moderately shiny; head, pronotum except for the apicis of posterior angles, scutellum and antennae black to dark brown; elytra lighter, dark brown, ferrugineous along the suture; legs brown to yellowish; covered with dense, yellowish, vestiture, recumbent to semierect at sides of elytra.

Head with eyes narrower than anterior margin of pronotum; frons more or less impressed from middle to anterior margin, the latter moderately thickened, gently arcuate, at middle not protruding and nearly touching clypeus at middle; punctures broad, strongly umbilicate, contiguous or confluent.

Antennae exceeding apicis of posterior angles of pronotum by 1.5 articles; second segment subcylindrical, a little longer than wide, third conical, just longer than second; second and third taken together longer than fourth; fourth-tenth triangular, pedunculate, about twice as long as wide, last longer than penultimate, ellipsoidal, pointed at apex.

Pronotum just longer than wide, widest at apicis of posterior angles; strongly convex, sloping abruptly at sides and base with a trace of a very shallow and narrow mid-longitudinal depression; sides nearly subparallel or moderately narrowing from behind the middle forwards; barely sinuate immediately before the apicis of posterior angles, the latter short, truncate, not or slightly divergent; punctuation coarse and rather uniformly distributed, punctures clearly umbilicate, with shortest shiny intervals or contiguous and often confluent.

Scutellum narrower than interelytral space, convex, irregularly rounded, coarsely punctured.

Elytra 2.6-2.7x longer than pronotum and as wide as it; convex, sloping nearly vertically at sides from seventh interstriae; sides subparallel in the first half then moderately dilated behind the middle; striae deeply punctured; interstriae flat, densely and roughly punctured.

Fourth articles of tarsi notably shorter and narrower than the previous.

Aedeagus as in fig. 6, 6a (length 1 mm).

Female unknown.

Size. Length 7.0-8.2 mm; width 2-2.3 mm.

**Etymology.** The name is derived from the Kožuf Mts., where the species was collected.
**Athous (Orthathous) sandanskiensis n. sp.** (Figs 7, 7a, 26, 63)

**Diagnosis.** A species near *A. freudei* Platia 1989 as to the tarsi with articles regularly decreasing in length, it can be separated by the stouter body with shorter and thicker antennae and by the male genitalia.


**Description.** Male. Moderately shiny; entirely dark brown with only the legs lighter, dark ferrugineous; covered with dense, recumbent yellowish vestiture, which is partially erect, at sides of elytra.

Head with eyes narrower than anterior margin of pronotum, frons deeply and widely impressed from middle to anterior margin, the latter thickened at angles, fine at middle and touching or just protruding above clypeus at center; punctures broad, strongly umbilicate, contiguous.

Antennae exceeding apicis of posterior angles of pronotum by about three articles, second article subcylindrical, 1.5x longer than wide, third subconical, 1.5x longer than second; second and third taken together 1.4x longer than fourth; fourth-tenth subtriangular, progressively slenderer 2 to 3x longer than wide; last longer than penultimate, subellipsoidal narrowed at apical third.

Pronotum just longer than wide, widest at apicis of posterior angles, convex, without or with a trace of a short, shallow mid-longitudinal depression; sides subparallel, more or less sinuate before the posterior angles, the latter a little divergent, rather acute acuminate with a very short spine directed upwards; puncturation rather uniformly distributed, punctures on disc deep more or less clearly umbilicate, with very short intervals, gradually denser towards the sides, superficial, clearly umbilicate and nearly contiguous at lateral extremities.

Scutellum smaller than the interelytral space, subrectangular, convex at center, densely punctured.

Elytra 3-3.2x longer than pronotum and just wider than it, moderately convex; sides subparallel for about two thirds of its length; striae well punctured; interstriae flat densely punctured.

Second to fourth articles of tarsi regularly decreasing in length.

Aedeagus as in figs 7, 7a (length 1.06-1.13 mm).

Size. Length 9.7-11.2 mm; width 2.6-2.8 mm.

Female unknown.

**Etymology.** The name is derived from Sandanski town, around which the species was caught.
**Athous (Orthathous) solitarius** *n.* *sp.* (Figs 9, 9a, 28, 35, 38, 62)

**Diagnosis.** A species near *A. freudei* Platia 1989 as to tarsi with articles regularly decreasing in length, it can be separated by the stouter body with shorter antennae just exceeding apicis of posterior angles of pronotum with thicker articles and by the male genitalia.

**Material examined.** Holotype ♂ - Greece: Pieria, Mt. Olimpos, Lithoro, 200-300 m, 27.V.2005, F. Angelini (CPG).

**Description.** Male. Moderately shiny; head and pronotum black-piceous, elytra dark brown; legs lighter; covered with yellow-fulvous, recumbent vestiture.

Head with eyes just narrower than anterior margin of pronotum, frons moderately impressed with anterior margin regularly and slightly arcuate, clearly thickened and smooth at angles, at center very fine and just protruding above clypeus; punctures coarse, umbilicate, contiguous.

Antennae just exceeding apicis of posterior angles of pronotum, second article subcylindrical, 1.8x longer than wide, third conical, just longer than second and less than twice as long as wide, second and third taken together 1.26x longer than fourth; fourth-tenth triangular, pedunculate, gradually slenderer, on average less than twice as long as wide; last longer than penultimate, subellipsoidal.

Pronotum 1.1x longer than wide, widest at apicis of posterior angles, very convex, sloping abruptly at sides and nearly vertically at base, sides subparallel, very feebly sinuate at posterior angles, the latter very short, barely divergent; punctuation rather uniformly distributed on the entire surface, on disc with punctures deep, moderately umbilicate, with very short shiny interstices, gradually denser towards the sides, clearly umbilicate and nearly contiguous at the extremities.

Scutellum small, globous, strongly convex and punctured. Elytra 2.6x longer than pronotum and as wide as it, moderately convex; sides subparallel for about two thirds of their length; striae clearly distinct and punctured; interstriae flat, with rugose surface.

Second to fourth articles of tarsi regularly decreasing in length.

Aedeagus as in figs 9, 9a (length 1 mm).

Female unknown.

Size. Length 9.8 mm; width 2.62 mm.

**Etymology.** The name is derived from the unique specimen recorded.

**Athous (Orthathous) tadzhikistanicus** *n.* *sp.* (Figs 10, 10a, 36, 39, 48, 64)

**Diagnosis.** It is not possible to compare this species with others of the region, as no species of the subgenus *Orthathous* had yet been recorded from Central Asia or east of Iran.


**Description.** Male. Moderately shiny; head, pronotum, scutellum ferrugineous, antennae, elytra, legs lighter, yellowish; covered with dense, recumbent yellow-
Figs 1-8a. Male genitalia in dorsal view. 1-1a. Sericus clarus Gurjeva; 2-2a. Agriotes hatayensis n. sp.; 3-3a. Ectinus puberulus (Candèze); 4-4a. Selatosomus kroliki n. sp.; 5-5a. Selatosomus maculatus n. sp.; 6-6a. Athous (Orthathous) kozufensis n. sp.; 7-7a. Athous (Orthathous) sandanskiensis n. sp.; 8. Athous (Orthathous) freudei Platia (Pt);
golden vestiture, which is semi-erect at sides of body.

Head with eyes just narrower than anterior margin of pronotum, frons triangularly impressed from middle to anterior margin the latter prolonged, directed downwards and nearly touching the clypeus, punctures broad, umbilicate, contiguous.

Antennae exceeding apicis of posterior angles of pronotum by three articles, second article subcylindrical, just longer than wide, third conical, 1.4x longer than second, second and third taken together 1.2x longer than fourth; fourth-tenth triangular, progressively slenderer, 2.4-3x longer than wide, last as long as penultimate, regularly ellipsoidal.

Pronotum as long as wide, widest at middle and apicis of posterior angles, convex, with two symmetrical punctiform depressions at sides of basal slope; sides moderately and regularly arcuate, posterior angles short, not divergent; punctures rather uniformly distributed, deep and simple to slightly umbilicate with very short shining intervals on disc, gradually denser to sides, contiguous or confluent at lateral extremities.

Scutellum smaller than the interelytral space, very convex, punctured. Elytra 3x longer than pronotum, just wider than it, rather flat on disc; sides subovoidal, widest at middle, striae well marked and punctured, interstriae flat, densely punctured.

Last visible abdominal segment feebly emarginate at apex.

Fourth tarsal segment much more narrower and shorter than third.

Aedeagus as in figs 10, 10a (length 1.12 mm).

Female unknown.

Size. Length 8.2 mm; width 2.34 mm.

**Etymology.** The name is derived from Tadzhikistan, the country where the species was collected.

**Athous (Orthathous) naseri** Müller, 1916


**Distribution.** Slovenia (Cate, 2007). New to Croatia and Bosnia.

**Athous (Orthathous) stoimenovae** Platia, 2001


Described from Bulgaria. New to Macedonia.

**Athous (Orthathous) vavrai** Platia, 2006

Described from SE Slovenia. New to Serbia.

**Athous (Neonomopleus) fernandensis** n. sp. (Figs 11, 11a, 30, 46, 46a, 49, 66)

**Diagnosis.** The species can be compared to *A. (Neonomopleus) sofiae* n. sp. as to general shape but can be separated by the different ratio in the length of first antennal articles, pronotum just wider than long, with a longer and more acuminate spine at apices of posterior angles, last abdominal sternite feebly sinuate at apex and apicis of paramera in the aedeagus.


**Description.** Male. Head and pronotum ferrugineous, antennae, elytra, legs lighter yellow-ferrugineous; abdominal sternites blackish; covered with fine, yellow-golden, recumbent, vestiture.

Head with eyes as wide as anterior margin of pronotum, frons deeply impressed from middle to anterior margin, the latter fused with clypeus, punctures coarse, umbilicate, contiguous.

Antennae exceeding apices of posterior angles of pronotum by about five articles, second article subcylindrical, a little longer than wide; third conical, twice as long as the second, second and third taken together just shorter than fourth, fourth-tenth subrectangular, gradually slenderer twice as long as wide or more; last a little longer than penultimate, pointed at apex.

Pronotum as long as wide or just wider than long, widest at the apices of posterior angles, strongly convex on disc, abruptly sloping at sides and base with two shallow transverse depressions at sides of basal slope; sides moderately arcuate, narrowing gradually from behind the middle to anterior margin, sinuate before the posterior angles, the latter are divergent with an acute spine directed upwards; punctures rather uniformly distributed, umbilicate on disc, with very short shiny interstices, gradually denser to sides, contiguous at the lateral extremities.

Scutellum narrower than the interelytral space, subrectangular, convex, densely and roughly punctured. Elytra very elongate, 4.3-4.4x longer than pronotum and clearly wider than it; sides subparallel for more than the two thirds of its length, gently dilated at posterior third then gradually narrowing towards apice; striae well marked and punctured; interstriae subconvex, densely and finely punctured. Last visible abdominal sternite weakly sinuate at apex.

Tarsal articles decreasing regularly in length.

Aedeagus as in fig. 11, 11a (length 1.32 mm).

Female unknown.

**Size.** Length 12.5-13.5 mm (Ht); width 2.7-3 mm.(Ht).

**Etymology.** The species is dedicated to San Fernando de Henares, the locality where it has been collected.


Figs 34-36. Tarsi. 34. *Conoderus posticus* (Eschscholtz), ♀; 35. *Athous* (*Orthathous*) *solitarius* n. sp.; 36. *Athous* (*Orthathous*) *tadzhikistanicus* n. sp.
**Athous (Neonomopleus) chiarae n. sp.** (Figs 12, 12a, 45, 45a, 65)

**Diagnosis.** A species that can be separated from *A. (Neonomopleus) sofiae* n. sp. by the narrower body, pronotum just longer than wide, elytra more longuely parallel and apices of paramera in aedeagus.


**Description.** Male. Head and pronotum ferrugineous, antennae, elytra, legs lighter yellow-ferrugineous; abdominal sternites blackish; covered with fine, yellow-golden, recumbent, vestiture.

Head with eyes as wide as anterior margin of pronotum, frons deeply impressed from middle to anterior margin, the latter fused with clypeus, punctures coarse, umbilicate, contiguous.

Antennae mutilated, only the first two segments are present, second subconical, 1.7x longer than wide.

Pronotum just longer than wide, widest at apices of posterior angles, strongly convex on disc, abruptly sloping at sides and base without any mid-longitudinal depression, sides subparallel, sinuate before the posterior angles, the latter are divergent with a short spine directed upwards; punctures rather uniformly distributed, deep on disc, umbilicate, with very short shiny interstices, gradually denser to sides, contiguous at the lateral extremities.

Scutellum narrower than the interelytral space, subrectangular, convex, densely and roughly punctured.

Elytra very elongate, on average 4.4x longer than pronotum and notably wider than it, moderately convex; sides subparallel for more than the two thirds of its length, gently dilated at posterior third then gradually narrowing towards the apices; striae well marked and punctured; interstriae subconvex, densely and finely punctured.

Tarsal articles decreasing regularly in length.

Aedeagus as in fig. 12, 12a (length 1.27 mm).

Female unknown.

Size. Length 13.4-14.5 mm; width 2.8-2.95 mm.

Notes. The two specimens were collected dead in spider webs and are mutilated at antennae, one also on head.

**Etymology.** The species is dedicated to my newborn second grandchild, Chiara.

**Athous (Neonomopleus) sofiae n. sp.** (Figs 13, 13a, 31, 47, 67)

**Diagnosis.** This species can be compared with *A. (Neonomopleus) suarezi* Platia & Gudenzi, 2005, but can be separated by the quadrangular pronotum, comparatively shorter articles of antennae and apices of paramera of aedeagus.

**Material examined.** Holotype ♂ - Spain: San Fernando de Henares (Madrid), 13.V.2009, J.I. López-Colón (CPG). 10 Paratypes ♂ - (3) same data as Ht and

**Description.** Male. Head and pronotum ferrugineous, antennae, elytra, legs lighter yellow-ferrugineous; abdominal sternites blackish; covered with fine, yellow-golden, recumbent, vestiture.

Head with eyes just narrower than anterior margin of pronotum, frons deeply impressed from middle to anterior margin, the latter fused with clypeus, punctures coarse, umbilicate, contiguous.

Antennae exceeding apicis of posterior angles of pronotum by 4.5-5 articles; second article subcylindrical, 1.4x longer than wide, third conical 1.7x longer than second and nearly twice longer than wide; second and third taken together as long as fourth; fourth-tenth subrectangular, gradually slenderer, 2x to 2.7x longer than wide; last a little longer than penultimate, symmetrically narrowing at apex.

Pronotum as long as wide, widest at posterior angles, strongly convex on disc, sloping abruptly at sides and base without any mid-longitudinal depression; sides subparallel or very gradually narrowing from behind the middle forwards, more or less distinctly sinuate before the posterior angles, the latter not or barely divergent with a short spine at apicis directed upwards; punctures rather uniformly distributed, deep on disc, umbilicate, with very short shiny interstices, gradually denser to sides, contiguous at the lateral extremities.

Scutellum narrower than the interelytral space, feebly convex, densely punctured.

Elytra very elongate, 4.3x longer than pronotum and notably wider than it, moderately convex; sides subparallel for about the two thirds of its length, gently dilated at posterior third then gradually narrowing towards the apicis; striae well marked and punctured; interstriae subconvex, densely and finely punctured.

Tarsal articles decreasing regularly in length.

Aedeagus as in figs 13, 13a (length 1.25 mm).

**Female unknown.**

**Size.** Length 12.5-15 mm; width 3-3.3 mm.

**Ecological notes.** Two of the specimens were collected dead in spider webs and their antennae and legs are mutilated.

**Etymology.** The species is dedicated to my first grandchild, Sofia.

**Tribe Ampedini** Gistel, 1856

*Ampedus paveli* n. sp. (Figs 14, 14a, 32, 68)

**Material examined.** Holotype ♂ - **Bulgaria:** Belasica Mts., Petric env. (41°21’53”N, 23°1'05”E), 697 m, 9.V.2008, F. Pavel (CSH). 1 Paratype ♂ - same data as HT (CPG).

**Diagnosis.** A species resembling *Ampedus triangulum* (Dorn, 1925) as to general shape, colour and third antennal article; it can be separated by the shape of the

Figs 48-49. Last abdominal sternite. 48. *Athous (Orthathous) tadzhikistanicus* n. sp.; 49. *Athous (Neonomopleus) fernandensis* n. sp.


Figs 52-53. Sides of elytra.
52. *Selatosomus kroliki* n. sp.;
53. *Selatosomus maculatus* n. sp.

Figs 54-57. Habitus, partial or total. 54. *Conoderus posticus* (Eschscholtz), ♀; 55. *Sericus clarus* Gurjeva, ♂; 56. *Agriotes crassus* n. sp., ♀; 57. *Agriotes hatayensis* n. sp.
pronotum less convex, with somewhat coarser punctures, very feeble carina in posterior angles and slenderer male genitalia.

**Description.** Male. Moderately shiny; bicoloured; head, pronotum and scutellum black-piceous, elytra entirely red-orange, legs dark-brown; maxillar palpi, first two articles of antennae and tarsi ferrugineous; covered with blackish vestiture. Head convex, punctures coarse, umbilicate, with very short interstices or contiguous. Antennae reaching the apicis of posterior angles of pronotum, second article small, globous as long as wide, third subtriangular, just longer than second and nearly as long as wide, second and third taken together as long as fourth; fourth-tenth triangular, 1.4 to 1.5x longer than wide, last as long as penultimate, ellipsoidal.

Pronotum 1.13x wider than long, widest at apicis of posterior angles, moderately and regularly convex, sides arcuate from behind the middle to anterior margin, narrowing regularly and gradually, basally subparallel to posterior angles, the latter short, not divergent with feeble carina directed medially; punctures on disc deep, slightly umbilicate, with intervals variable, on average smaller than their own diameters, gradually smaller and sparser toward the basal slope and denser towards sides, where they become strongly umbilicate, oblong, nearly contiguous.

Scutellum shield-shaped, ridged at base, very feebly sinuate at sides, flat and densely punctured. Elytra 2.7x longer than pronotum and as wide as it, moderately convex; sides perfectly parallel for about the two thirds of its length, striae well marked and deeply punctured, interstriae flat to slightly convex, with rare and fine punctures.

Aedeagus as in fig. 14, 14a (length 1.28 mm).

Female unknown.

**Size.** Length 10 mm; width 2.8-2.85 mm.

**Etymology.** The species is dedicated to the colleague F. Pavel, specialist of Col. Buprestidae and collector of the specimens.

Tribe **Melanotini** Candèze, 1859

**Melanotus cinerascens** (Küster, 1851)

**Material examined.** 3 spcm. - **Turkey**: Gölpazari (Bilecik), 20.VII.1989, F. Cavazzuti; Pülümür (Tunceli), m 1600, VI.1985, B. Lassalle; Almus (Torat), m 900, 19.VI.1994, D. Gianasso.

**Distribution.** Albania, Bulgaria, Croatia, Greece, Italy, Romania, Slovenia, Serbia, Montenegro (CATE, 2007). **New to Turkey.**
Tribe *Cardiophorini* Candèze, 1860

*Cardiophorus gianassoi* n. sp. (Figs 15, 15a, 69)

**Material examined.** Holotype ♂ - Iran: Dena Reserve, Buyer Ahmad-o-Kuh-giluye, Sisaht env. (30°52'46.8"N, 51°25'12.3"E), 2370 m, 4-5.V.2009, D. Gianasso. (CPG).

**Diagnosis.** A species similar to *C. magnanii* Platia, Furlan & Gudenzi, 2002 as to the last abdominal sternite yellowish, it can be separated by the penultimate abdominal sternite also yellowish, the very fine puncturation of pronotum and the male genitalia.

**Description.** Male. Shiny; entirely black-piceous with last two visible abdominal sternites yellowish, legs blackish with articulations and tarsi ferrugineous; covered with very short, recumbent yellow-fulvous vestiture.

Head small, with eyes as wide as anterior margin of pronotum, frons flat, slightly impressed at anterior margin, the latter moderately thickened and regularly curved, punctures moderate, deep, simple, with very short interstices to contiguous.

Antennae nearly reaching the apicis of posterior angles of pronotum, feebly serrated from the third articles on; second subconical, a little longer than wide, third-tenth triangular, on average more than twice as long as wide, subequal in length and twice as long as second; last as long as penultimate and subellipsoidal.

Pronotum 1.1x wider than long, widest at middle, strongly and regularly convex, sides very arcuate, narrowing gradually from the middle distally, narrowing more strongly basally, very shortly and just sinuate before the posterior angles, the latter truncate, not divergent, with a short carina directed medially; punctures very fine on entire surface, on disc of variable diameters and interstices on average larger than their own diameters, gradually denser to sides but always with very short intervals.

Scutellum heart-shaped, just wider than long, perfectly flat, with a very fine incision at middle of base, very finely punctured.

Elytra 2.4x longer than pronotum and as wide as it, moderately convex and rather flatting on disc, sides ovaliform, widest at middle; striae well marked and punctured, interstriae flat with dense and finer punctures.

Aedeagus as in fig. 15, 15a (length 1.12 mm).

Claws simple.

Female unknown.

Size. Length 8.2 mm; width 2.68 mm.

**Etymology.** The species is dedicated to the colleague D. Gianasso, specialist of Col. Buprestidae and collector of the specimen.

*Cardiophorus golestanicus* n. sp. (Figs 16, 16a, 33, 70)

**Material examined.** Holotype ♂ - Iran: Golestan, Pass SW Hös Yellag, 2070 m, 25.IV.2008, G. Sama. (CPG).
Diagnosis. A species that can be compared with *C. zeisingi* Platia, 2004, from Turkey as to third antennal article serrated and with the same sculpture as the following, as well as apex of scutellum rounded, it is separable by different characters, such as second article of antennae slender, third as long as the following, sides of pronotum regularly arcuate, scutellum flat, elytra more elongate and the aedeagus.

Description. Male. Moderately shiny; Unicoloured, blackish with bronzed shades, antennae dark-brown, legs lighter, entirely yellowish; covered with short, recumbent, yellowish vestiture.

Head with eyes just narrower than anterior margin of pronotum, frons flat on vertex, slightly impressed at anterior margin, the latter ridged, regularly curved and just protruding above clypeus; punctures very dense, contiguous, deep, simple. Antennae exceeding apicis of posterior angles of pronotum by one article, serrated from third article on; second segment subcylindrical, twice as long as wide, third-tenth subtriangular just twice longer than wide, last a little longer than penultimate, subellipsoidal constricted and pointed at apical third.

Pronotum just wider than long, widest at middle, strongly and regularly convex, sides regularly arcuate, equally narrowing distally and basally from middle, posterior angles short, truncate, very feebly divergent; punctures uniformly distributed on entire surface, deep, simple, with very short intervals to contiguous at lateral extremities.

Scutellum as long as wide, flat, with a few apparent, short incisions at middle of base and rounded apex, finely and densely punctured.

Elytra 2.6x longer than pronotum and as wide as it, moderately convex, rather flat on disc, sides ovaliform, widest at middle; striae well marked and pointed; interstriae flat, densely and finely punctured.

Claws simple.

Aedeagus as in fig. 16, 16a (length 1.2 mm).

Female unknown.

Size. Length 6.1 mm; width 2 mm.

Etymology. The name is derived from Golestan, the region of Iran where the species was collected.

*Cardiophorus ebeninus* (Germar, 1824)

**Material examined.** 6 spcm ♂♀ - **Pakistan**: Quetta, 5.VIII.1989, A. Hamet (CMHK; CPG).

**Distribution.** Europe; Caucasus; Turkey; Central Asia; Far East. **New to Pakistan.**

*Cardiophorus sacratus* Erichson, 1840

Distribution. Asia Minor to Turkmenistan. New to Uzbekistan.

_Paracardiophorus curtulus_ (Motschulsky, 1860) comb. n. (Figs 17, 17a, 19, 19a, 71)
*Cardiophorus curtulus* Motschulsky, 1860: 112.
*Cardiophorus motschulskyi* Heyden 1880-81: 121 (new name); Schenkling, 1927 : 227.


**Notes.** This species, described as a *Cardiophorus*, had been ignored by some authors, particularly Kishii (1977) who revised the species of the genus *Paracardiophorus* Schwarz of the Far East, Korea and Japan, as well as Gurjeva (1989: 533) in a paper on the Click Beetles from Far East of Russia.

But two specimens in my collection had been determined as *P. curtulus* (Motschulsky) by the Russian specialist Vladimir Dolin. With the help of Mr A. Prosvirov, a young specialist from the Moscow University, I obtained the following news: «today I was in the Museum and examined the specimen of *Cardiophorus curtulus* in Motschulsky’s collection. It is the Lectotype, with notes by V.G. Dolin “*Paracardiophorus curtulus* Motsch. (f. *P. musculus*) W. Dolin. 1966» and «Lectotypus *Cardiophorus curtulus* Motsch.=*Paracardiophorus*”. Locality: “Amur”».

Russian specimens from the Far East were previously probably misidentified as *P. pullatus* (Candèze, 1873).

**Distribution.** Russian Far East

Subfamily _Negastriinae_ Nakane & Kishii, 1956

_Zorochos angularis_ (Candèze, 1869)

**Material examined.** 2 specm. – NW Tunisia: Feidja Mts, 15 km NW Ghardimaou, 24-25.V.2008, F. Houska (CHCB).

**Distribution.** Spain; Portugal; Morocco, Algeria (CATE, 2007). New to Tunisia.
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Literature


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