



УДК 595.762

SYSTEMATIC AND NOMENCLATORIAL NOTES ON SOME TAXA OF ZABRINI AND HARPALINI FROM THE PALAEARCTIC, ORIENTAL AND AUSTRALIAN REGIONS (COLEOPTERA: CARABIDAE)

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ABSTRACT

The paper deals with the taxonomy of some members of Zabрини and Harpalini based mainly on the examination of the type material. *Harpalus indicus orientalis* subsp. nov. is described from Myanmar, China, Vietnam and Laos. *Notiobia (Anisotarsus) peratra* (Sloane, 1920), originally described from Tasmania and the south-east of Australia within the genus *Diaphoromerus* Chaudoir, 1843, is redescribed. The following new synonyms are proposed: *Amara abdominalis* (Motschulsky, 1844) = *Phobophorus paccatus* Motschulsky, 1850, syn. nov.; *Amara lamia* Andrewes, 1924 = *Trichotichnus ladakhensis* Kirschenhofer, 1992, syn. nov.; *Amathitis* Zimmermann, 1832 = *Phobophorus* Motschulsky, 1850, syn. nov.; *Chydaeus andrewesi szetschuanus* Schaubberger, 1932 = *Ch. guangxiensis* Ito, 2006, syn. nov.; *Harpalomimetes fukiensis* (Jedlička, 1957), comb. nov. = *Kareya fukiensis* Jedlička, 1957 = *Harpalomimetes orbicollis* Ito, 1995, syn. nov.; *Harpalus* Latreille, 1802 = *Licinoderus* Sainte-Claire Deville, 1905 = *Neoharpalus* Mateu, 1954 = *Baeticoharpalus* Serrano et Lecina, 2009, syn. nov.; *Harpalus politus* Dejean, 1829 = *H. eberlovi* Berlov, 1996, syn. nov.; *H. praticola* Bates, 1891 = *H. himalayicus* Jedlička, 1966, syn. nov.; *H. semipunctatus* Dejean, 1829 = *H. aesculanus* Pantel, 1888, syn. nov.; *H. subcylindricus* Dejean, 1829 = *H. ambigenus* Reiche, 1853, syn. nov.; *Notiobia peratra* (Sloane, 1920) = *Chydaeus queenslandicus* Baehr, 2004, syn. nov. Lectotypes are designated for *Diaphoromerus perater* Sloane, 1920; *Harpalus indicus* Bates, 1891; and *H. semipunctatus* Dejean, 1829.

Key words: *Amara*, Australian Region, *Chydaeus*, Coleoptera, ground beetles, Harpalini, *Harpalomimetes*, *Harpalus*, new combination, new subspecies, new synonyms, Palaearctic, Oriental Region, taxonomy, Zabрини

ЗАМЕЧАНИЯ ПО СИСТЕМАТИКЕ И НОМЕНКЛАТУРЕ ЖУЖЕЛИЦ ТРИБ ZABRINI И HARPALINI ПАЛЕАРКТИКИ, ОРИЕНТАЛЬНОЙ ОБЛАСТИ И АВСТРАЛИИ (COLEOPTERA: CARABIDAE)

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РЕЗЮМЕ

В статье приводятся замечания по систематике и номенклатуре жужелиц триб Zabрини и Harpalini, основанные главным образом на изучении типового материала. Описан *Harpalus indicus orientalis* subsp. nov. из Мьянмы, Китая, Вьетнама и Лаоса. Переописан вид *Notiobia (Anisotarsus) peratra* (Sloane, 1920), первоначально описанный в роде *Diaphoromerus* Chaudoir, 1843 из Тасмании и юго-восточной Австралии. Предложены следующие новые синонимы: *Amara abdominalis* (Motschulsky, 1844) = *Phobophorus paccatus* Motschulsky, 1850, syn. nov.; *Amara lamia* Andrewes, 1924 = *Trichotichnus ladakhensis* Kirschenhofer, 1992, syn. nov.; *Amathitis* Zimmermann, 1832 = *Phobophorus* Motschulsky, 1850, syn. nov.; *Chydaeus andrewesi szetschuanus* Schaubberger, 1932 = *Ch. guangxiensis* Ito, 2006, syn. nov.; *Harpalomimetes fukiensis* (Jedlička, 1957), comb. nov. = *Kareya fukiensis*

Jedlička, 1957 = *Harpalomimetes orbicollis* Ito, 1995, syn. nov.; *Harpalus* Latreille, 1802 = *Licinoderus* Sainte-Claire Deville, 1905 = *Neoharpalus* Mateu, 1954 = *Baeticoharpalus* Serrano et Lecina, 2009, syn. nov.; *Harpalus politus* Dejean, 1829 = *H. eberlovi* Berlov, 1996, syn. nov.; *H. praticola* Bates, 1891 = *H. himalayicus* Jedlička, 1966, syn. nov.; *H. semipunctatus* Dejean, 1829 = *H. aesculanus* Pantel, 1888: 223, syn. nov.; *H. subcylindricus* Dejean, 1829 = *H. ambigenus* Reiche, 1853: XXX, syn. nov.; *Notiobia peratra* (Sloane, 1920) = *Chydaeus queenslandicus* Baehr, 2004, syn. nov. Обозначены лектотипы для *Diaphoromerus perater* Sloane, 1920; *Harpalus indicus* Bates, 1891 и *H. semipunctatus* Dejean, 1829.

Ключевые слова: *Amara*, Австралия, *Chydaeus*, Coleoptera, жужелицы, Harpalini, *Harpalomimetes*, *Harpalus*, новая комбинация, новый подвид, новые синонимы, Палеарктика, Ориентальная область, таксономия, Zabrinini

INTRODUCTION

The paper comprises systematic and nomenclatorial notes on some taxa of ground beetles belonging to the tribes Zabrinini and Harpalini from the Palaearctic, Oriental and Australian regions, based mainly on the examination of the type material. A new subspecies of *Harpalus indicus* Bates, 1891 is also described from Myanmar, China (Yunnan, Taiwan), Vietnam and Laos.

MATERIAL AND METHODS

The following abbreviations are used for the depositories of the specimens examined: CAS, California Academy of Sciences, U.S.A.; IOZ, Institute of Zoology, Chinese Academy of Sciences, Beijing, China; FMNH, The Field Museum of Natural History, Chicago, USA; MNHN, Muséum National d'Histoire Naturelle, Paris, France; MPU, Moscow Pedagogical University, Moscow, Russia; NHMW, Naturhistorisches Museum, Vienna, Austria; NME, Naturkundemuseum Erfurt, Germany; NMP, National Museum Prague, Czech Republic; NRM, Naturhistoriska Riksmuseet (Natural History Museum), Stockholm, Sweden; OÖLL, Oberösterreichisches Landesmuseum, Linz, Austria; SAM, South Australian Museum, Adelaide, Australia; TMB, Természettudományi Múzeum, Budapest, Hungary; ZIN, Zoological Institute, Russian Academy of Sciences, Saint Petersburg, Russia; ZMM, Zoological Museum, Moscow, Russia; ZMUN, Zoological Museum, University of Oslo, Norway; ZSM, Zoologische Staatssammlung München, Germany; cSCI, Coll. R. Sciaky, Milano, Italy; cGRK, Coll. V. Gurko, Chernovtsy, Ukraine; cHNZ, Coll. W. Heinz, Schwanfeld, Germany; cMB – the working collection of M. Baehr at the

Zoologische Staatssammlung, München, Germany; cOB, Coll. O.E. Berlov, Irkutsk, Russia; cWR, Coll. D.W. Wrase, Berlin, Germany; cZRS, Coll. V. Zieris, Pardubice, Czech Republic.

Measurements were taken as follows: body length (L), measured from the anterior margin of the clypeus to the elytral apex; width of head, measured as the maximum linear distance across the head, including the compound eyes (HWmax), and as the minimum linear distance across the neck constriction just behind the eyes (HWmin); length of pronotum (PL), measured along its median line; length of elytra (EL), measured from the basal border in the scutellar region to the apex of the sutural angle; maximum width of pronotum (PWmax) and of elytra (EW), both measured at their broadest point; minimum width of pronotum (PWmin), measured at its narrowest point near the hind angles; length and width of metepisterna, measured along their inner and anterior margins, respectively. All measurements were made under the stereobinocular microscope MBS-10 using an ocular-micrometer.

SYSTEMATICS

Tribe Zabrinini Bonelli, 1810

Genus *Amara* Bonelli, 1810

Amara (Cumeres) lamia Andrewes, 1924

Trichotichmus (s. str.) *ladakhensis* Kirschenhofer, 1992: 36 syn. nov.

Type material. Paratypes of *Trichotichmus ladakhensis*: 1 male, "India, J. ca K., Ladakh, 5000–5200 m, 23.VII.–2.VIII.1984, Nimaling, H.A. Cocak, R. Vis.", "Paratypus", "*Trichotichmus ladakhensis* m., det. Kirschenhofer" (NHMW); 1 male, "σ", "India,

Ladakh, Nimaling Valley, 27.VII.1984, 5200 m, leg. H.A. Coene, "Paratypus", "*Trichotichnus ladakhensis* n. sp., det. Kirschenhofer" (NHMW); 1 female, same data, but labelled "♀" instead of "♂" (NHMW).

Remarks. *Trichotichnus* (s. str.) *ladakhensis* was described from the series (12 specimens) collected in Nimalina Valley, 5200 m, Ladakh, India. Examination of the paratypes deposited in NHMW revealed the identity of this taxon with *Amara* (*Cumeres*) *lamia*, a member of the tribe Zabrinini. This species is endemic to the region of Ladakh, Kashmir (Hieke 1988, 2003). Thus *T. ladakhensis* should be treated as a junior synonym of *A. lamia*.

***Amara* (*Amathitis*) *abdominalis*
(Motschulsky, 1844)**

Phobophorus paccatus Motschulsky, 1850: 24 syn. nov.

Type material. Holotype of *Phobophorus paccatus*: female, "Phobophorus paccatus mihi, Elisabethpol" [Motschulsky's handwriting], and "Elisabethpol" (ZMM).

Remarks. Motschulsky (1850) originally described the genus *Phobophorus* in a key (p. vii) and mentioned *Ph. paccatus*, which was represented in his collection by one specimen from "Georg.[ia] m.[eridionalis]" (p. 24), as a single species of this genus. According to Motschulsky (l. c.), this genus belongs to the Harpali genus-group and is related to «*Camarognathus* Guérin". Because he did not provide any descriptions in the text, both generic and species names proposed by Motschulsky were treated as unavailable for a long time. Bousquet (2002) was the first who gave evidence of validity of these names based on the article 12.2.6 of the International Code of Zoological Nomenclature (1999). Nevertheless, the type specimen of *Ph. paccatus* has never been examined, that is why this taxon was considered as *incertae sedis* within the tribe Harpalini (Bousquet 2002; Lorenz 2005). During my visit to ZMM, I was able to study the holotype of *Ph. paccatus* which was found to be conspecific with *Amara* (*Amathitis*) *abdominalis*. This species is widely distributed over the southern part of the East Palaearctic and known from Transcaucasia (Hieke 1996, 2003). Therefore, the following synonymy is stated: *Amara abdominalis* (Motschulsky, 1844) = *Phobophorus paccatus* Motschulsky, 1850 syn. nov.; and *Amathitis* Zimmermann, 1832 = *Phobophorus*

Motschulsky, 1850, syn. nov. Based on the label data of the holotype, the type locality of *Ph. paccatus* is "Elisabethpol" (= Gandzha), Azerbaijan, not "Georg.[ia] m.[eridionalis]" as probably erroneously cited by Motschulsky (1850).

Tribe Harpalini Bonelli, 1810

Genus *Notiobia* Perty, 1830

***Notiobia* (*Anisotarsus*) *peratra* (Sloane, 1920)
(Figs 1–9)**

Diaphoromerus perater Sloane, 1920: 133.

Notiobia (*Anisotarsus*) *perater* (Sloane, 1820): Noonan, 1973; Moore et al., 1987.

Notiobia (*Anisotarsus*) *peratra* (Sloane, 1820): Lorenz, 1998, 2005.

Chydaeus queenslandicus Baehr, 2004: 19 syn. nov.

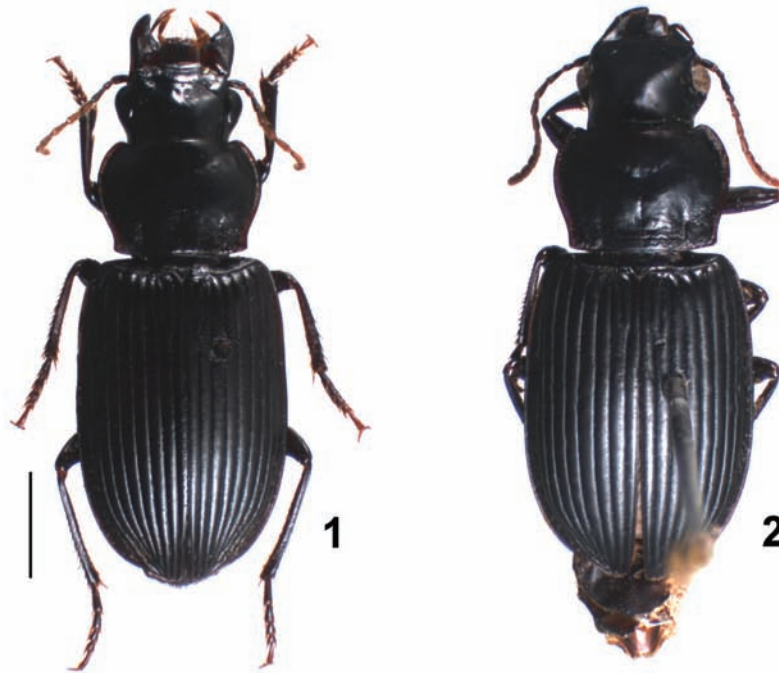
Type material. Lectotype of *D. perater* (present designation): male, labelled "Tasmania, A. Simson" [print], "Co-type" [print], "*Diaphoromerus perater* Sl., Id. by T.G. Sloane" [handwritten/print], "Lectoholo – *D. perater* Sl., (1.)" [handwritten, on red paper], and "S. A. Museum Specimen" (SAM). Paralectotypes: 1 female, labelled "Hobart Tas: Lea" [print], "*Diaphoromerus perater* Sl., Id. by T.G. Sloane, cotype" [handwritten/print], "4469, *Diaphoromerus perater*, Tasmania, Cotype" [handwritten], and "S. Austr. Museum specimen" (SAM); 1 male [teneral, abdomen absent], labelled "Burnie, Tas: Lea" [print], "Co-type", "*Diaphoromerus perater* Sl., Id. by T.G. Sloane" [handwritten/print], "9.11555, *Diaphoromerus perater*, Tasmania, Cotype" [handwriting], and "S.A. Museum specimen" (SAM). Holotype of *Ch. queenslandicus*: female, labelled "Australien, Qld, Atherton Tbl. the Crater, 20.8.1972, M. Baehr", "Holotype, *Chydaeus queenslandicus*, sp. nov., det. M. Baehr 2003", "Coll. M. Baehr, München" (cMB).

Additional material. Australia. Tasmania: 1 male, "Warra LTER: Manuka Rd., TAS: 43.07 S 146.67 N, SSTEAS720Pil 07 of 10 Feb 2007, Post logging, R. Bashford FT FT39966" (cMB). **Victoria:** 2 males, 3 females, "Melbourne, No. 1183, Ejna Fischer", "*Diaphoromerus perater* Sl. (NS 1920), Id. by T.G. Sloane", "*Diaphoromerus perater* Sln." (ZMUN).

Redescription. Body length 9.2–10.8 mm, width 4.0–4.5 mm.

Habitus – Fig. 1, 2.

Color. Black piceous, shiny on dorsum; base of mandibles, outer margins of labrum occasionally



Figs 1–2. *Notiobia peratra*, general view (1 – male, Victoria; 2 – female, holotype of *Chydaeus queenslandicus*). Scale bar = 2.0 mm.

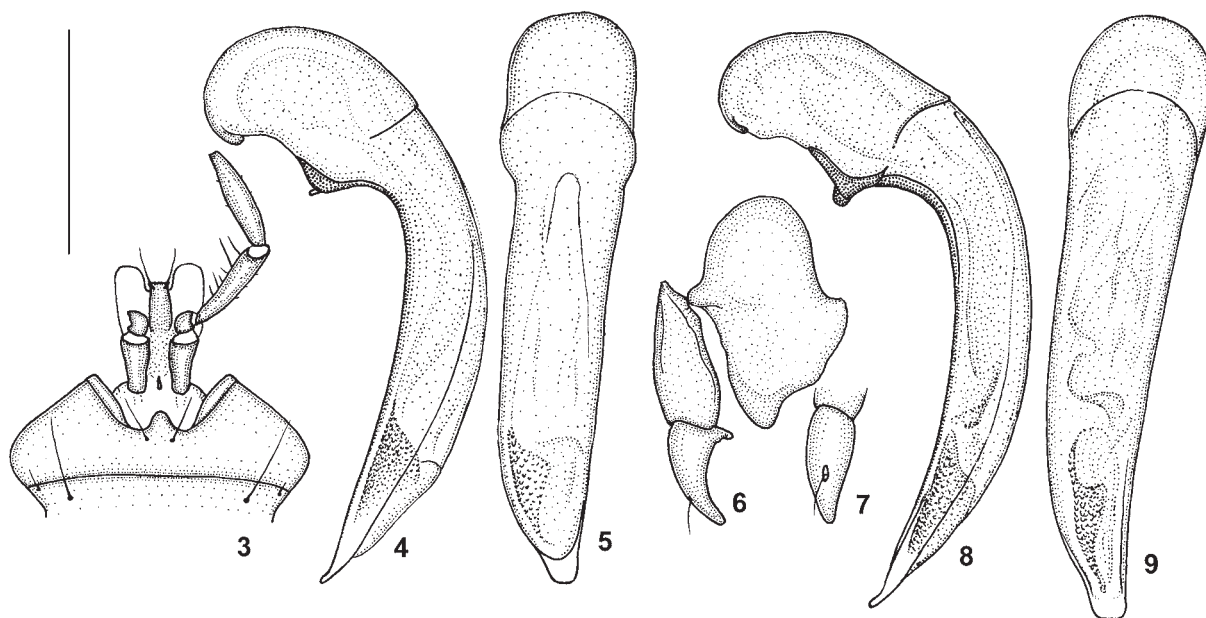
paler; apices of palpi, apical antennomeres and occasionally also tarsi brown or reddish brown.

Microsculpture. In both sexes present throughout on dorsum; head and pronotum basally, elytra in apical half and on three or four lateral intervals with microsculpture consisting of more or less isodiametric meshes; pronotum apically and medially, and elytra on inner intervals in basal half with transverse meshes (narrower and finer in male than in female); meshes on head very fine, slightly obliterate.

Head. Rather large ($HW_{max}/PW_{max} = 0.71–0.81$ and $HW_{min}/PW_{max} = 0.55–0.62$), impunctate. Eyes convex ($HW_{max}/HW_{min} = 0.18–0.24$), markedly removed from buccal fissure ventrally. Tempora rather long and convex, sloped to neck. Clypeus very shallowly emarginate, distinctly bordered apically. Frontal foveae with distinct, thin clypeo-ocular lines reaching supraorbital furrows. Clypeo-frontal suture slightly deepened. Supraorbital pore located slightly before hind margin of each eye, removed at a distance of about 1.5 diameters of pore from supraorbital furrows. Labrum rather shallowly emarginate apically. Left mandible truncate at apex. Mentum and submentum separated by complete transverse suture

(Fig. 3). Mentum with prominent medial tooth. Epilobes moderately widened apically. Ligular sclerite narrow at apex. Paraglossae wide, rounded, not removed distally from ligular sclerite. Labial basal palpomere without oblique carina ventrally. Antennae with antennomeres 5 to 7 each about 1.8–2.0 times as long as wide, in male surpassing pronotal basal edge by one apical segment, in female shorter, at most reaching basal edge.

Pronotum. Moderately transverse ($PW_{max}/PL = 1.44–1.54$), widest slightly before middle, markedly narrowed posteriad ($PW_{max}/PW_{min} = 1.18–1.28$). Sides largely rounded, markedly sinuate before basal angles, each with one lateral setigerous pore in widest point of pronotum. Apical margin rather shallowly emarginate, bordered only laterally. Basal margin straight or slightly oblique laterally, distinctly bordered throughout, slightly longer than apical margin and noticeably shorter than elytral base between humeral angles. Apical angles slightly protruded anteriorly, rounded at apices. Basal angles equal to or slightly more than 90° , somewhat sharp at tip. Pronotal disc moderately convex. Lateral depressions beginning from apical angles, narrow (approximately



Figs 3–9. *Notiobia peratra* (3, 6–9 – Victoria; 4, 5 – Tasmania, lectotype). 3 – labium; 4, 5, 8, 9 – median lobe of aedeagus; 6 – laterotergite and stylus; 7 – stylus (4, 7, 8 – lateral view; 3, 6 – ventral view; 5, 9 – dorsal view). Scale bar = 1.0 mm.

as wide as width of antennomere 2 basally), slightly widened in posterior third and fused with somewhat deep and wide latero-basal depressions. Basal foveae narrow, slightly deepened; area between basal foveae convex. Pronotal surface distinctly and densely punctate along base, smooth or with fine and sparse punctation along apical margin and in central portion.

Elytra. Moderately convex, elongate (EL/EW = 1.43–1.51, EL/PL = 2.78–2.93, EW/PWmax = 1.28–1.35), widest slightly behind middle. Humeri subangulate, rounded at tips, each with a tiny acute denticle, recognizable only from behind. Subapical sinuations comparatively deep. Sutural angles in both sexes blunted or very narrowly rounded, with apices slightly isolated from each other. Basal borders slightly sinuate, joined each with lateral margin at very obtuse angle. Striae impunctate, slightly deepened along entire length. Intervals impunctate, moderately convex. Interval 3 without discal pore. Parascutellar striole long, with basal setigerous pore. Umbilicate setal series more or less widely interrupted at middle.

Hind wings normally developed.

Ventral surface and abdomen. Prosternum largely glabrous, only with few short and fine setae along anterior margin; prosternal process not projected posteriad. Proepisterna (propleura) impunctate. Metepisterna long (about twice as long as wide),

strongly narrowed posteriad. Abdominal sternum VII (last visible) in male subtruncate, in female rounded at apex, in both sexes with two pairs of setae along apical margin. Apex of abdominal tergum VII (last visible) in both sexes angularly rounded.

Legs. Metacoxae each with an additional postero-medial setigerous pore and without any additional, neither setigerous or unsetigerous, foveae medially. Tarsi glabrous dorsally, tarsomere 5 with two pairs of lateroventral setae. Metatarsi slightly longer than HWmin, with tarsomere 1 markedly longer than tarsomere 2, but shorter than tarsomeres 2+3. In male, protarsi moderately enlarged, slightly narrower than protibia at apex (tarsomere 2 slightly wider than long, tarsomere 3 markedly wider than long) and tarsomeres 1–4 with adhesive vestiture ventrally; mesotarsi slightly narrower than mesotibia at apex (mesotarsomere 1 markedly longer than wide; mesotarsomere 2 slightly longer than wide; mesotarsomere 3 approximately as long as wide; mesotarsomere 4 distinctly smaller than tarsomeres 2 and 3, and deeply concave apically), and mesotarsomeres 1–4 with adhesive vestiture ventrally (mesotarsomere 1 with adhesive scales only apically).

Female genitalia (Figs 6, 7). Laterotergite well sclerotized distally, without distal setae; distal mesal margin with distinct boundary. Apical stylomere

curved, moderately wide, without seta on external margin.

Aedeagus. Median lobe (Figs 4, 5, 8, 9) slender, almost straight in dorsal aspect, arcuate in lateral aspect, with apex slightly curved ventrad just at tip. Terminal lamella short, slightly longer than wide, with sides slightly converging posteriad, widely rounded at tip. Apical orifice in dorsal position, prolonged to basal bulb. Internal sac with spiny folder in apical portion of median lobe.

Distribution. Australia: Queensland, Victoria, Tasmania.

Remarks. This species has originally been described as a rather distinct species within the genus *Diaphoromerus* Chaudoir, 1843 on the basis of several specimens collected in Tasmania (Hobart, Huon River, Burnie) and the south-east of Australia (Victoria: Warburton) (Sloane 1920). Without examination of the type series, Noonan (1973) transferred the species to the subgenus *Anisotarsus* Chaudoir, 1837 of the genus *Notiobia* Perty, 1830, since considered *Diaphoromerus* a junior synonym of *Anisotarsus*. All subsequent authors (Moore et al. 1987; Lorenz 1998, 2005) also listed *Diaphoromerus perater* as a member of *Anisotarsus*. My study of the type specimens of this species and the additional material from Tasmania and Victoria revealed its similarity in appearance to members of the genus *Chydaeus* Chaudoir, 1854 and first I believed that *N. peratra* should be included in this genus. However, this assumption has been rejected after more careful study of the mouth parts and female genitalia in this species. Like other species of Australian *Anisotarsus* and unlike species of *Chydaeus*, *N. peratra* has the following states of these characters: mentum and submentum separated by a complete suture, paraglossae wide, not removed distally from ligular sclerite, and laterotergite with well sclerotized distal mesal margin (in all *Chydaeus* known to me, mentum and submentum are completely fused, paraglossae are narrow, well removed distally from ligular sclerite, and laterotergite is with somewhat membranous distal mesal margin). In addition, *N. peratra* lacks any distal setae on the laterotergite as opposed to that of the members of *Chydaeus* which usually have such setae. Furthermore, I found that the characteristics of *N. peratra* agree with those of *Chydaeus queenslandicus* Baehr, 2004, the single Australian species of the predominantly Oriental genus *Chydaeus*. It was described and up to the present is known only from one female collected in the north-east of Australia (type

locality: "Atherton Tbl. the Crater", Queensland) (Baehr 2004). Thanks to Martin Baehr (München), I received the holotype (housed in cMB; Fig. 2) for examination and was able to compare it directly with the specimens of *N. peratra*. This comparison revealed that the both taxa are very similar to each other in the morphology, including the characteristics of the mouth parts and the female genitalia; moreover I couldn't find sufficient differences between them in any character. The proportions of the holotype of *Ch. queenslandicus* are also within the variation of *N. peratra*: $PW_{max}/PL = 1.47$; $PW_{max}/PW_{min} = 1.20$; $EL/EW = 1.46$; $EL/PL = 2.79$; $EW/PW_{max} = 1.30$; $HW_{max}/PW_{max} = 0.77$; $HW_{min}/PW_{max} = 0.59$; $HW_{max}/HW_{min} = 1.30$. Therefore, in my opinion, *Ch. queenslandicus* should be included in the subgenus *Anisotarsus* of the genus *Notiobia* and treated as a junior synonym of *N. peratra*. According to Noonan (1973), structure of labium is the main character for division of the subtribe Anisodactylina into two main branches: (1) the Notiobioid main branch (including the genus *Notiobia*) with the mentum and submentum separated by a complete suture and (2) the Anisodactyloid main branch (including the genus *Chydaeus*) with the mentum and submentum fused. The similarity in appearance of *N. peratra* to some members of *Chydaeus* is apparently convergent and seems to be based on similar modes of life of these taxa. Thus *Chydaeus* seems to be absent in Australia.

Within Australian *Anisotarsus*, *N. peratra* is rather isolated from other species and easily recognized by having pronotum cordate, frontal foveae with long clypeo-ocular prolongations, metacoxa with additional posterolateral setigerous pore, elytra without discal setigerous pore in interval 3, and aedeagus without spines in the inner sac. On the basis of these characters, most of which seem to be unique among the Australian *Anisotarsus*, *N. peratra* perhaps warrants separate subgeneric status, but now I prefer to retain it within *Anisotarsus* because a revision of all the Australian species of *Notiobia* is needed.

Genus *Chydaeus* Chaudoir, 1854

Chydaeus andrewesi szetschuanus Schauberger, 1932

Chydaeus (Chydaeus) guangxiensis Ito, 2006: 198 syn. nov.

Material. China. Guangxi: 2 male, 1 female, N Guangxi Rongshui (Miao automom) co. Yuan Bao

mts., 25°23'14.3''N 109°09'17.9''E, 1510 m, May 2007, M. Häckel & R. Sehnal leg. [det. as *Ch. guangxiensis* by Wrase in 2009] (cWR); 1 male, same data as preceding but 25°23'31.3''N 108°09'17.8''E, 2078 m (cWR) [det. as *Ch. guangxiensis* by Wrase in 2009]; *Guizhou*: 1 male, Guizhou, Leishan Co., SE Kaili, NE Leishan, Leigong Shan, E – slope, env. of pass between Leishan and Fangxiang, 26°22.74'N 108°12.99'E, 1700–1800 m, 14–24 June 2001, Schillhammer leg. (cWR) [det. as *Ch. guangxiensis* by Wrase in 2009].

Remarks. *Chydaeus guangxiensis* was described from one male from Guangxi (“Below Tienshan Ping, Mt. Miao’er, Xing’an Xian”), China. The taxonomic position of this winged species was discussed by Kataev and Schmidt (2006) and Kataev et al. (2012) on the basis of two females taken from the same mount, which were only available at that time. Examination of the additional material from Guangxi and Guizhou listed above confirmed the opinion of Kataev and Schmidt (2006) that this taxon should be considered as a synonym of *Ch. andrewesi szetschuanus* which was described from Sichuan. The punctuation of the pronotum is rather variable in the examined specimens, although, on average, it is coarser than that in *Ch. a. kumei* Ito, 1992 and usually distinct punctures present also anteriorly. In other characters *Ch. a. szetschuanus* and *Ch. a. kumei* are very similar to each other. Therefore the area of distribution of *Ch. a. szetschuanus* includes Sichuan, Guangxi and Guizhou.

The size and proportions of *Ch. a. szetschuanus* (based on the material from Sichuan, Guangxi and Guizhou): L = 8.8–10.0 mm; HWmax/PWmax = 0.68–0.74; HWmin/PWmax = 0.56–0.60; HWmax/HWmin = 1.16–1.25; PWmax/PL = 1.25–1.35; EL/EW = 1.37–1.41, EL/PL = 2.38–2.61; EW/PWmax = 1.19–1.24.

Genus *Harpalomimetes* Schaubberger, 1933

Harpalomimetes fukiensis (Jedlička, 1957)

comb. nov.

(Figs 10–13)

Kareya fukiensis Jedlička, 1957: 93.

Harpalomimetes orbicollis Ito, 1995: 278 syn. nov.

Type material. Paratype of *Kareya fukiensis*: male, labelled “Shaowu – Fukien (500 m), J. Klapperich, 6.7.1937, R.”, “Cotype”, “*Kareya fukiensis* sp. n., det. Ing. Jedlička”, “Kinn ohne Zaine” (NMP).

Additional material. China. *Anhui*: 1 male, Xuan-cheng Co., in rice field, 25 May 1956 (IOZ); *Jiangxi*: 1 female, Longnan Co., 8 June 1975, Zhang Youwei leg. (IOZ).

Remarks. *Kareya fukiensis* was described on the basis of three specimens from the Chinese province Fujian (“Fukien”) without more exact data. The examination of the paratype housed at NMP (Fig. 10) revealed that this taxon belongs to the genus *Harpalomimetes* Schaubberger, 1933 and is conspecific with *H. orbicollis* Ito, 1995. The latter taxon was described from Japan (Honshu and Kyushu islands; the type locality: “Fujioka, Watarase, Tochigi Pref.”) and known to me also from the eastern China (Anhui and Jiangxi). The specimens examined from China including the paratype of *Kareya fukiensis* fully agree with the detailed original description of *H. orbicollis*; the structure of the median lobe of the aedeagus of the examined paratype of *K. fukiensis* (Figs 11–13) coincides with that of the type specimen of *H. orbicollis* illustrated by Ito (1995: Fig. 13).

The size and proportions of the examined paratype of *Kareya fukiensis*: L = 10.0 mm; HWmax/PWmax = 0.70; HWmin/PWmax = 0.54; HWmax/HWmin = 1.30; PWmax/PL = 1.43; EL/EW = 1.51, EL/PL = 2.52; EW/PWmax = 1.16.

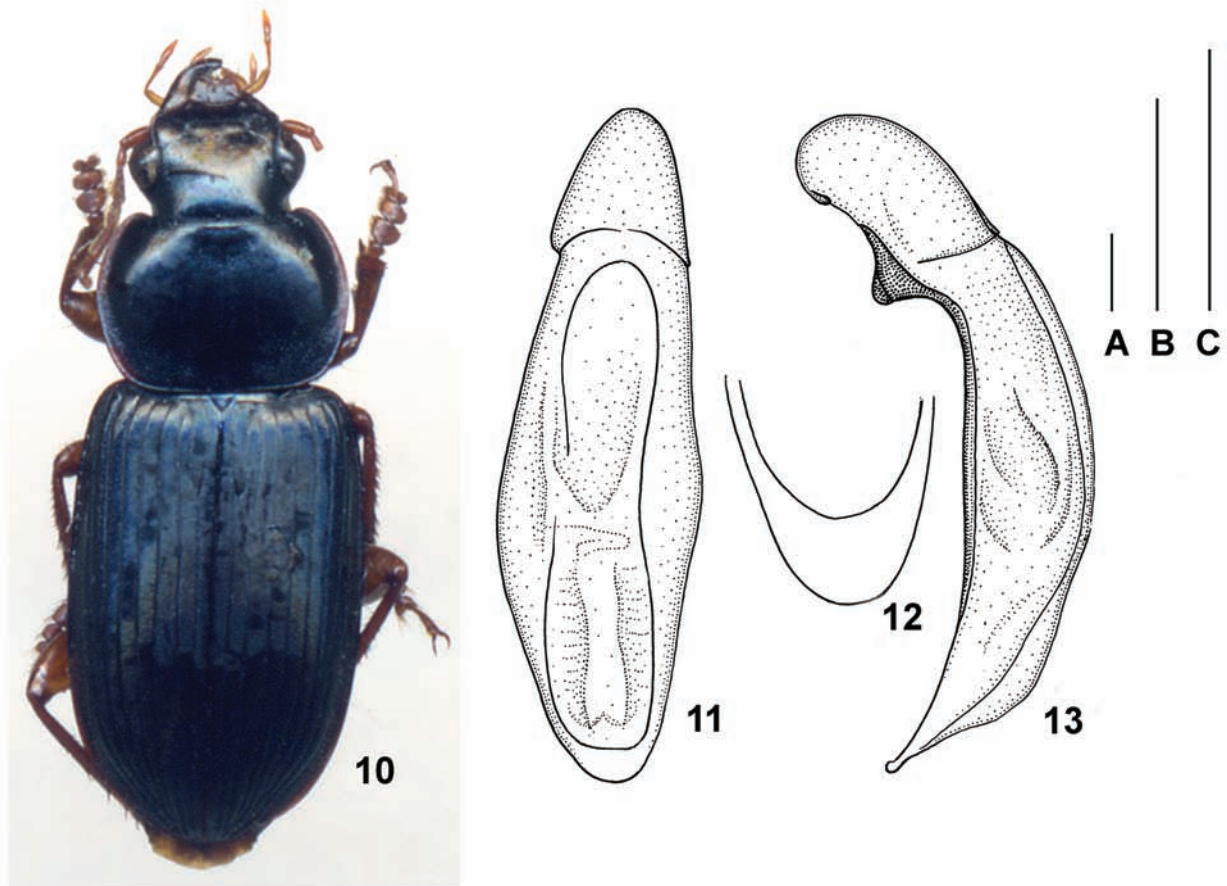
Genus *Harpalus* Latreille, 1802

Harpalus (Zangoharpalus) praticola Bates, 1891

Harpalus himalayicus Jedlička, 1966: 237 syn. nov.

Type material. Holotype of *Harpalus himalayicus*: male [cited erroneously as a female in the original description], labelled “Jumbesi, 2700 m, E. Nepal, 4.V.1963, K. Yoda leg.”, “Holotypus”, and “*Harpalus himalayicus* sp. n., det. Ing. Jedlička” (NMP).

Remarks. *Harpalus himalayicus* was described from one specimen from “Junbesi” [= Jumbesi], Nepal. In the subsequent literature, it was treated either as a synonym of *H. indicola* Bates, 1878 (Kirschenhofer 1992; Lorenz 1998, 2005) or as a separate species with unclear position (Kataev et al. 2003). The examination of the holotype revealed that this taxon is conspecific with the rather variable *H. praticola* (= *H. indicola* sensu auct., non Bates, 1878) which is widely distributed over the Himalayan region from Pakistan to Assam and also in the mountains of Hindustan, Indochina and southern China (Kataev 1997). *Harpalus himalayicus* is based on a male hav-



Figs 10–13. *Harpalomimetes fukiensis*, paratype. 10 – general view; 11, 13 – medial lobe of aedeagus; 12 – terminal lamella of median lobe (10–12 – dorsal view; 13 – lateral view). Scale bars: A = 1.0 mm (Fig. 10), B = 0.5 mm (Fig. 12), C = 1.0 mm (Figs 11, 13).

ing a pronotum with distinct basal angles and punctate base; such features of pronotum are typical for the Nepalese populations.

***Harpalus (Pseudoophonus) indicus* Bates, 1891**

Remarks. *Harpalus indicus* is a rather common species widely distributed from North-Western India and North Pakistan throughout the Himalayan region to southern China, Vietnam and Laos. In 2001, I recognized two geographical forms within this species (named the western and eastern forms) differing distinctly in several morphological characters, mainly in the features of the adhesive vestiture on ventral side of the mesotarsi in male and of the sclerotic armature of the internal sac of the aedeagus (Kataev 2001). In spite of the marked morphologi-

cal differences between these forms, at that time I preferred not treating them as subspecies, because I had no opportunity to study the type specimens or any other material from Chota Nagpur Plateau in India from where *H. indicus* was described. The examination of the new material from various localities including the syntypes of *H. indicus* showed that differences between the two mentioned geographical forms are sufficient to warrant subspecific status for them. Thus I divide *H. indicus* into two subspecies one of which is described here as a new.

***Harpalus (Pseudoophonus) indicus indicus* Bates, 1891**

Harpalus indicus Bates, 1891: 332.

Harpalus (Pardileus) perlucidus Schaubberger, 1929: 191.

Harpalus (Pardileus) indicus andrewesianus Schaubberger, 1932: 29.

Harpalus eberti Jedlička, 1966: 237.

Gnathaphanus dierli Jedlička, 1966: 239 syn. nov.

Harpalus (Amblystus) janetscheki Jedlička, 1970: 440.

Type material. Lectotype of *H. indicus* (present designation): male, labelled “Konbir, P. Cardon” [on yellow paper], and “*Harpalus Indicus* Bates” [Bates’ handwriting] (MNHN); and paralectotype, male, labelled “Konbir, P. Cardon” [on yellow paper] (MNHN).

Lectotype of *H. perlucidus* [designated as “holotype” by Gusenleitner (1990: 770); see also Kataev (2001: 394)]: male, labelled “Himalaya, Sikkim”, “Type”, “*Harpalus (Pardileus) perlucidus* Sch., loc. Class.”, “*perlucidus* Schaub., det. Dr. E. Schaub.”, “*Harpalus Pardileus indicus* Bates v. *perlucidus* Schaub.” and “Coll. Dr. E. Schaubberger” (OÖLL); and paralectotype, male, labelled “Himalaya, Sikkim”, “Cotype”, “*indicus* ssp. *perlucidus* Schaub., det. Dr. E. Schaub.”, “Coll. Dr. E. Schaubberger”, and “Cotype” (OÖLL).

Holotype of *Harpalus eberti*: male, labelled “Nepal, Prov. Nr. 3, East Chounvikherla – Namche, 3000 m, 28.VI.1964, Löffler leg. (40), Staatsslg. München”, “Holotypus”, “*Harpalus eberti* sp. n., det. Ing. Jedlička”, and “Zool. Staatssl. München” (ZSM).

Holotype of *Gnathaphanus dierli*: male, labelled “Nepal, Prov. Nr. 3, East Jubing [! sic], 1600 m, 9.V.1964, leg. W. Dierl”, “Holotypus”, and “*Gnathaphanus* sp. n., det. Ing. Jedlička” (ZSM).

Paratypes of *Harpalus janetscheki*: 1 male, 1 female, labelled “Np–61”, “Paratypus”, “*Harpalus janetscheki* sp. n., det. Ing. Jedlička”, and “Mus. Nat. Pragae, Inv. 65140” (NMP).

Additional material examined. [in addition to the specimens listed by Kataev (2001) from India (Uttar Pradesh) and Nepal]. **Pakistan.** *Azad Jammu and Kashmir*: 1 male, 2 females, env. Naran, “NW from Junkar”, 3000 m, 1–10 July 2003, V. Gurko and S. Ovchinnikov leg. (cGRK); 1 male, Poonch Distr., Las Dana, 2600 m, 9–10 June 1997, W. Heinz leg. (cHNZ); 1 male, 2 females, Bagh Distr., 18–20 July 2001, W. Heinz leg. (cHNZ, cWR); 1 female, Distr. Bagh, Sudhan Gali, 2300 m, 1–9 August 2003, W. Heinz leg. (cWR); *Khyber-Pakhtunkhwa*: 1 male, Mansehra, Passca, near Battal, 2000 m, 7–18 July 1997, W. Heinz leg. (cHNZ).

India. *Himachal Pradesh*: 1 male, Kothi Vill., 32°18′N 77°11′E, 2300 m, 1–30 June 1999,

Yu. Marusik leg. (FMNH); 1 male, Man City, 2 June 1999, Yu. Marusik leg. (FMNH); 1 male, 1 female, “Spiti, Tsho-Ti (Indes Angl.) Mai 1914” [Babault leg.] (MNHN); 51 specimens (males and females), “Spiti, Pulga (Indes Angl.), Babault, Mai 1914” (MNHN); *Uttarakhand*: 1 male, 1 female, “W. Almora, Kumaon, U.P., India, H.G.G.” (MNHN); 1 male, 2 females, ca 30 km N Bageschwar, Khati village env., 2100–2300 m, 27–30 June 2003, Z. Kejval and M. Tryzna leg. (cZRS); *Sikkim*: 1 female, “Gopaldhara, Br. Sikkim, H. Stevens” (MNHN).

Nepal. *Mahakali Prov.*: 1 female, Darchula Distr., Batar env., slope above Chamaliya Khola, 29°50′54″N 80°54′03″E, 1900 m, village side, 12 June 2005, M. Hartmann leg. (NME); *Seti Prov., Bajura Distr.*: 1 male, 2 females, 16 km SW Simikot, N Chachour, Kuwadi Khola, 3500 m, 29°50′41″N 81°45′00″E, coniferous–oak wood, 6 July 2001, A. Kopetz leg. (NME); 2 males, 16 km SW Simikot, N Chachour, Kuwadi Khola, 3500 m, 29°50′41″N 81°45′00″E, coniferous–oak wood, 6 July 2001, E. Grill leg. (NME); 1 male, 18 km W Simikot, N Chachour, Kuwadi Khola, 3400 m, 29°52′23″N 81°40′04″E, riverside, 6 July 2001, E. Grill leg. (NME); *Seti Prov., Bajhang Distr.*: 1 female, “Bas Katiya linkes Nebantai des Jadari Khola, 29°27′16″N 81°08′28″E, 1440 m, Felsflur m. Gebusch”, U. Bössneck leg. (NME); *Karnali Prov., Humla Distr.*: 1 male, 2 females, 18 km WNW Simikot, Chumsa Khola (Bridge), 2950 m, 30°02′25″N 81°39′06″E, river valley, 20–22 June 2001, E. Grill leg. (NME); 2 males, 1000 m W Simikot, 29°58′00″N 81°48′48″E, 3050–4100 m, coniferous forest, terrace fields, 17 June 2001, E. Grill leg. (NME); 1 male, 500 m W Simikot, 29°58′N 81°49′E, terrace fields, 3000–3200 m, 16–17 June 2001, A. Kopetz leg. (NME); 2 males, 2 females, Simikot, 3100 m, 29°58′25″N 81°49′07″E, 16 June 2001, E. Grill leg. (NME); 1 male, same data as preceding but 17 June 2001, M. Hartmann leg. (NME); *Karnali Prov., Jumla Distr.*: 1 female, Bumra Nyowru Khola, 29°23.41′N 82°08.48′E, above 2700 m, 22 June 1999, M. Hartmann leg. (NME); 3 males, 2 females, Tamti – Surki, Bheri Khola valley, 2400–2700 m, riverside, fields, 11 June 2007, M. Hartmann leg. (NME); 1 male, Tamti, N Camp, 29°08′46″N 82°05′42″E, 2700 m, meadow, 10 June 2007, M. Hartmann leg. (NME); 2 males, 1 female, Munigaon baila Khola, 2500 m, 4 May 1995, A. Weigel leg. (NME); 1 male, Gothichaur valley, around camp, 29°11′50″N 82°18′30″E, 2950 m, KLS/HF, 29 May 2007, M. Hartmann leg. (NME);

1 male, Jumla bis Gothichaur valley, 2400–2800 m, 26 May 2007, M. Hartmann leg. (NME); *Karnali Prov., Mugu Distr.*: 1 male, Lager NW Churchi Lagna Pass, 29°29.47'N 82°07.51'E, ca 2440 m, 23 June 1999, E. Grill leg. (NME); *Bagmati Zone*: 1 male, NE Kathmandu, “Nahe Gorkhara-Park, Ufer Bagmati”, 27°43.01'N 85°18.46'E, 1340 m, 17 June 1999, E. Grill leg. (NME). *Mechi Prov., Taplejung Distr.*: 2 females, 20–15 km E Taplejung, Phumphe to Khesewa, 1900–2200 m, 27°22'30"N 87°48'54"E, deciduous forest, 25 May 2003, A. Weigel leg. (NME).

Bhutan. *Thimphu Distr.*: 1 male, E Dochu La, Menshunang, 2400 m, 7 July 1988, C. Holzschuh leg. (NME); 1 female, Hongtsu, 3000 m, 14 June 1988, C. Holzschuh leg. (NME); 3 males, 1 female, Taba, 2600 m, 20–30 June 1988, C. Holzschuh leg. (NME, ZIN); 9 males, 8 females, Jomolohari trek, env. Paro Chhu River, 15 September 2008, T. Vereschagina and S. Sergievskij leg. (ZIN).

Diagnosis. Body size, on average, smaller (8.9–12.6 mm) than that in *H. indicus orientalis* subsp. nov., elytra more markedly rounded at sides, metepisterna shorter (see Kataev 2001: Figs 48, 49), mesotarso-mere 1 of male lacking of ventral adhesive vestiture on ventral side, and median lobe of aedeagus without any sclerotic armature in internal sac (see Kataev 2001: Figs 21–26).

Distribution. The Chota Nagpur Plateau and the western portion of the Himalayas from Pakistan (Azad Jammu and Kashmir) up to Bhutan.

Remarks. The nominotypical subspecies corresponds to “the western form”; the examined type specimens of *H. indicus* from Chota Nagpur possess all characteristics of this form as described by Kataev (2001). *Harpalus perlucidus* (type locality: “Sikkim”, India), *H. indicus andrewesianus* (type locality: “Spiti-Pulga im westlichen Himalaja”, Himachal Pradesh, India), *H. eberti* (type locality: “Chauri-Kharka”, Nepal) and *H. janetscheki* (type locality: “Lager Tate, ca 2900”, Nepal), treated all as synonyms of *H. indicus* by Kataev (2001), also belong to the nominotypical subspecies. The present treatment of *Gnathaphanus dierli* as a synonym of *H. indicus indicus* is based on the study of the holotype of the former. This species was described on the basis of one specimen collected in “East Jubing”, Nepal and up to now has apparently never been reexamined by specialists.

As stated in my preceding paper (Kataev 2001), some populations distributed in the eastern Nepal and Sikkim demonstrate intermediate characteristics; for

example, the population from Rakse in Mechi Province, Nepal [Ilam Distr., Rakse Vill., 1700–2600 m, VII, 1998, N. Orlov leg. (ZIN)] includes specimens both with and without a spiny patch in the internal sac of the median lobe. Interestingly, all specimens examined from Bhutan possess all the distinctive features of the nominotypical subspecies.

***Harpalus (Pseudoophonus) indicus orientalis* subsp. nov.**

Type material. Holotype. Male, Vietnam, Lao Cai Prov., env. Sa Pa, Hoang Lien Son Nature Reserve, 1250 m, 2–15 June 1998, A. Napolov leg. (ZIN).

Paratypes. **Vietnam.** *Lao Cai Prov.*: 1 male, 3 females, same data as holotype (ZIN); 1 male, same data as holotype but 21–23 June 1998 (ZIN); 3 males, 8 females, same data as holotype but 27 May–2 June 1998 (ZIN); 1 male, near Cat Cat Vill., 2.5 km SW of Sa Pa, 22°19'37"N 103°49'21"E, 1400–1450 m, May 2010, A.V. Abramov leg. (ZIN); 2 males, Hoang Lien Son, Sa Pa, 11–15 May 1990, V. Kuban leg. (NMB, cWR); 2 males, 2 females, Sa Pa, 11–18 June 1990, A. Olexa leg. (NMB, cWR); 1 female, Fan Si Pan Mt. (northern slope), Sa Pa, 22°17'N 103°44' E, 1525 m, “prim Urwald, 28 October–3 November 1994, Sinjaev & einh. Sammler leg.” (cWR); 1 male, Sa Pa Distr., Fan Si Pan Mt., 22°18'56"N 103°49'35"E, 1400–1500 m, 26 May–6 June 1999, N.L. Orlov leg. (ZIN); 1 female, Tam-Dao, 900 m, 16–23 May 1991, J. Strnad leg. (cWR); 1 female, Shonla Prov., env. Shongma, 1 May 1986, A. Gorokhov leg. (ZIN); *Quan Binh Prov.*: 3 males, 6 females, Central Annam, Minh Hoa Distr., env. Yen Hop, 17 March–23 April 1999, S. Kruskop leg. (MPU, ZIN); 2 males, Central Annam, Quan Binh Prov., Minh Hoa Distr., Ke Bang, env. Yen Hop, at light, 12–13 April 1999, S. Kruskop leg. (MPU).

Myanmar. 4 males, 1 female, “Burma, Kanbaiti, 70000 ft. (2000 m), 22.VI.1934, R. Malaise leg.” (NRM); 1 male, “MYANMAR (Kachin State) ca. 30 km N von Pangwa, 2.255 m 25°43'52.4"N / 098°24'06.0"E (under wood/stones) 29.–30. IX / 6. X. 2010 M. Langer, S. Naumann & S. Löffler” (cWR); 1 male, “MYANMAR (Burma) Provinz Kachin State / Holzmeilercamp N 26°09'23.2" E 098°31'16.4" 5.X.2010 (H ca. 2.344 m, TF) leg. Michael Langer, S. Naumann & S. Löffler” (cWR).

China. *Yunnan*: 1 male, Taveishan Mts near Pingbian, 1350 and 1500 m, 21 and 27 June 1956, D. Panfilov and Khuan Ke leg. (ZIN); 1 female, Jingdong,

1170 m, at lighth, 6 June 1956, O. Kryzhanovskij leg. (ZIN); 1 female, same data as preceding, but 24 June 1956 (ZIN); 2 females, same data, but 25 June 1956 (ZIN); 1 female, Wuliangshan, env. Jingdong, 2300 m, 22 March 1957, D. Panfilov leg. (ZIN); 17 specimens (males and females), NW Yunnan, Lijiang, 9 August 1996, D. Fedorenko leg. (cFED, ZIN); 3 males, 4 females, Gaoligongshan mts., 90 km W Baoshan, 26–28 May 1995, S. Becvar leg. (cWR, cSCI, ZIN); 1 male, Yongping County, Bonan, Zhuobo, 25.44507°N 99.43715°E, 1997 m, 22 August 2007, H.B. Liang leg. (IOZ); 1 male, Longyang, Mangkuan Baihualing, on ground, 25.29560°N 98.80298°E, 1520 m, 9 October 2007, D. Kavanaugh leg. (CAS); 1 male, Tengchong, Shangying, Dahaoping Station, 24.96976°N 98.73142°E, 2040 m, 31 May 2005, H.B. Liang leg. (IOZ); 1 male, “China, prov. Yunnan, 30 km N Tengchong, Vulcano nature reserve, 28 October 1999 Jaroslav Štátný lgt.” (cWR); 20 specimens (males and females), Gongshan, Dulongjiang, 0.6 km N Dizhengdang, 28.08442°N 98.32652°E, 1880 m, 29 October 2004, D. Kavanaugh leg. (CAS, IOZ); 3 males, Gongshan, Dulongjiang, 0.5 km N Kongdang, 27.88111°N 98.34062°E, 1500 m, 7 November 2004, D. Kavanaugh leg. (CAS); 11 specimens (males and females), Gongshan, Cikai Town, 0.5 km of Kongdang, 27.88111°N 98.34063°E, 1500 m, 25 October 2004, D. Kavanaugh leg. (CAS); 1 female, Gongshan, Cikai Town, Pulahe, joint of Nujiang, 27.74879°N 98.66730°E, 1470 m, 11 November 2004, H.B. Liang leg. (CAS); 2 males, 5 females, Gongshan, Dulongjiang, Dizhengdang, Silalong He, 28.07654°N 98.32603°E, 1890 m, 30 October 2004, D. Kavanaugh leg. (IOZ); 2 males, 4 females, Gongshan, Dulongjiang, 2.8 km S Longyuan Vill., 28.00905°N 98.32204°E, 1660 m, 31 October 2004, D.Z. Dong. (IOZ); 21 specimens (males and females), Gongshan, Djiang, 2.3 km S Longyuan, 28.00532°N 98.32145°E, 1685 m, 2 November 2004, D. Kavanaugh leg. (CAS); 2 males, Gongshan, Dulongjiang, Elidang Village, beach, 28.00287°N 98.32145°E, 1640 m, 3 November 2004, D. Kavanaugh and D.Z. Dong leg. (CAS); 5 males, 3 females, Gongshan, Dulongjiang, Xianjiudang Vill., 27.94092°N 98.33340°E, 1580 m, 4 November 2004, D. Kavanaugh, D.Z. Dong leg. (CAS); 1 female, Gongshan, Dulongjiang, Bapo, along roadside, 27.73902°N 98.34975°E, 1412 m, 3 November 2004, H.B. Liang leg. (IOZ); 1 male, 2 females, Gongshan, Dulongjiang, Bapo, Mabiluo, riverside, 27.76208°N 98.34567°E, 1503 m, 27 October 2004, H.B. Liang

leg. (IOZ); 16 specimens (males and females), Gongshan, Dulongjiang, Miliwang, above Bapo, 27.72383°N 98.36117°E, 1956 m, 31 October 2004, H.B. Liang leg. (IOZ); 1 male, 3 females, Gongshan, Dulongjiang, 1 km south of Bapo, 27.73453°N 98.35042°E, 1333 m, 3 November 2004, V.F. Lee leg. (IOZ); 2 males, 2 females, Gongshan, Dulongjiang, Lawaduo, roadside, 27.69666°N 98.34934°E, 1466 m, 4 November 2004, H.B. Liang leg. (IOZ); 3 males, 2 females, Gongshan, Dulongjiang, Mengdi, rice field, 27.71422°N 98.34772°E, 1354 m, 4 November 2004, H.B. Liang leg. (IOZ); 2 males, 3 females, Gongshan, Dulongjiang, Mukawa He, corn field, 27.90247°N 98.34348°E, 1584 m, 7 November 2004, H.B. Liang leg. (IOZ); 1 male, Gongshan, Dulongjiang, around Dizhengdang, 28.08442°N 98.32652°E, 1880 m, 28–31 October 2004, Sh. Chen leg. (IOZ); 6 females, Gongshan, Bingzhongluo, 2.3 km N Sijitong, 28.06644°N 98.58401°E, 1670 m, 11 November 2004, D. Kavanaugh and D.Z. Dong leg. (CAS); 2 males, 2 females, Gongshan, Dulongjiang, Maku Vill., roadside, 27.68533°N 98.30425°E, 1823 m, 1 November 2004, H.B. Liang leg. (IOZ); 3 males, 3 females, Baoshan Prov., Longyang, Bawan, Dasheyao, 24.92994°N 98.75850°E, 2325 m, 3 June 2005, D. Kavanaugh and D.Z. Dong leg. (CAS); 1 male, same data as preceding but 24.92989°N 98.75862°E, 2320 m, 1 June 2005, Zh. Dao leg. (IOZ); 1 female, Baoshan, Longyang, Bawan, Nankang station, 24.82587°N 98.76832°E, 2048 m, 22 May 2005, H.B. Liang leg. (IOZ); 1 female, Baoshan, Longyang, Bawan, Sanchahe, 24.94755°N 98.75564°E, 2300 m, 3 June 2005, H.B. Liang and H.M. Yan leg. (IOZ); 1 male, 1 female, Baoshan, Longyang, Bawan to Dahaoping road, 24.93947°N 98.82339°E, 1635 m, 11 October 2007, day, Dong Lin leg. (IOZ); 1 male, “CHINA (Yunnan) Baoshan Pref., Gaoligong Shan 31 km SE Tengchong 2200–2250 m 24°53′11″N / 98°45′22″E (pasture in second. forest, under moss/shrubs) 26.VIII.2009 D.W.Wrase [09]” (cWR); 1 female, “CHINA (Yunnan) Baoshan Pref., Gaoligong Shan E pass, 36 km SE Tengchong 2200 m 24°49′32″N / 98°46′06″E (farm land, under moss, grass, shrubs, under stones) 28.VIII.2009 D.W. Wrase [13]” (cWR); 1 female, “CHINA (Yunnan) Baoshan Pref., Gaoligong Shan 10 km SE Kambaiti pass, 45 km NW Tengchong 1700–1800 m 25°21′13–29″N / 98°13′39–54″E (primary forest, litter/mushrooms sift.) 29.VIII.2009 M. Schülke [15]” (cWR); 1 male, “CHINA (Yunnan) Baoshan Pref.,

Gaoligong Shan, 33 km SE Tengchong 24°51'22''N / 98°45'36''E 2100–2200 m (pasture, und. stones/plants, moss) 31.V.2007 D.W. Wrase [14]" (cWR); 1 male, "CHINA (Yunnan) Baoshan Pref., Gaoligong Shan, 29 km ESE Tengchong 24°55'37''N / 98°45'09''E 2350 m (devast. decid. forest with clearings and shrubs, litter, wood, sifted) 1.VI.2007 D.W. Wrase [15]" (cWR); 1 male, "CHINA (Yunnan) Baoshan Pref., mount. range 22 km S Tengchong, 1750 m 24°49'29''N / 98°29'27''E (loamy banks of fishponds) 2.VI.2007 D.W. Wrase [18]" (cWR); 1 male, "CHINA: Yunnan [CH07–15], Baoshan Pref., Gaoligong Shan, 29 km ESE Tengchong, 2350 m, 24°55'37'', 98°45'09''E, dev. decid. forest, litter, wood, fungi sifted, 1.VI.2007, leg. A. Pütz" (cWR); 2 males, Lushui Co., Pianma, Gangfang, roadside, 26.11781°N 98.59342°E, 1787 m, 16 May 2005, H.B. Liang and Y.H. San leg. (IOZ); 4 males, Lushui Co., Pianma, Gangfang, Xuetao, 26.12218°N 98.57546°E, 1625 m, 16 May 2005, D. Kavanaugh and D.Z. Dong leg. (CAS); 1 male, Lushui Co., Pianma, Changyanhe, riverside, 25.99414°N 98.66336°E, 2540 m, 12 May 2005, D. Kavanaugh and D.Z. Dong leg. (CAS); 2 males, 1 female, Fugong Co., Pihe Town, Wawa village, roadside, 26.59398°N 98.90819°E, 1263 m, 13 May 2004, H.B. Liang leg. (IOZ); 1 male, Fugong Co., Pihe Town, Jiajiu Village, Bacunhe, 26.54816°N 98.89576°E, 1120 m, 29 April 2004, H.B. Liang leg. (IOZ); 1 male, Fugong Co., Maji town, Mujiajia Vill., riverside, 27.44267°N 98.81683°E, 1350 m, 12 May 2004, H.B. Liang leg. (IOZ); 1 female, Fugong Co., Shangpa, Guquan Vill., roadside, 26.88897°N 98.86558°E, 1230 m, 27 April 2004, H.B. Liang leg. (IOZ); 1 male, "CHINA (Yunnan) Nujiang Lisu Aut. Pref., Salween side valley 5 km S Fugong, road SS 228 km 223 (creek bank, litter sifted) 8.VI.2007 D.W. Wrase [25]" (cWR); 1 female, "CHINA (Yunnan) Dali Bai Aut. Pref., 36 km N Dali 2158 m 26°01'20''N / 100°08'14''E (ruderal pasture with pines, shrubs, small brooks, und. stones/litter sifted) 24.VIII.2009 D.W. Wrase [04]" (cWR); 1 female, "CHINA (Yunnan) Dali Bai Aut. Pref., Mǎo Jiao Shan, E pass 2525 m, 58 km NE Dali 25°56'41''N / 100°40'05''E (field edge with shrubs, in soil) 4.IX.2009 D.W. Wrase [26]" (cWR); 1 male, "CHINA (Yunnan) Lincang/Dali Pref., Wuliang Shan, old pass road, N pass 2350 m 24°45'16.4''N / 100°29'50.3''E (forest remnant, under stones/in litter) 16.IX.2009 D.W. Wrase [55]" (cWR); 8 males, 1 females, Yingjiang Co, Xima Town, near Myanmar border, forest, 24.82666°N

97.74511°E, 2000–2250 m, 30 September 2012, B. Kataev leg. (ZIN); 1 male, 1 female, Yingjiang Co., Xima Town, Mengnai Power Station, 24.78907°N 97.69010°E, 1720 m, 30 September 2012, B. Kataev leg. (ZIN); 1 female, Yingjiang Co., Taiping Town, Huilonghe Reservoir, 24.68009°N 97.74911°E, 1798 m, 30 September 2012, B. Kataev leg. (ZIN); 1 male, Xishuangbanna, 23 km NW of Jinghong, Na Ban Vill. (NNNR), 22°10.04'N 100°39.52'E, 680 m, at station, LF, 5 June 2008, A. Weigel leg. (NME); 1 male, Xishuangbanna, 29 km NW of Jinghong, vic. Da Nuo You, 22°12.41'N 100°38.29'E, 790 m, fallow, BF, NNNR, 20 October 2008, A. Weigel leg. (NME); 1 male, Xishuangbanna, 37 km NW of Jinghong, vic. Guo Men Shan, 22°14.44'N 100°36.24'E, 1080 m, BF, open land, 10 October 2008, L. Meng leg. (NME); 1 male, same data as preceding but 22°17.91'N 100°38.85'E, 1080 m, LF, 26 May 2008, A. Weigel leg. (NME); 1 female, same data, but 22°14.43'N 100°36.12'E, 1100 m, rice fallow, L. Meng leg. (NME); 1 male, Xishuangbanna, 20 km NW of Jinghong, vic. Man Dan (NNNR), 22°07.80'N 100°40.05'E, 740 m, rubber plant, BF, 18 May 2009, L. Meng leg. (NME); *Taiwan*: 1 male, Taipei, Wu-Lai, 21 May 1987, C. E. Lee leg. (cWR); 1 female, Taitung Prov., Chihpen, 390 m, 10–11 June 1997, B. Hercig and L. Ronkay leg. (TMB).

Laos. 5 males, 4 females, NE Laos, Pr. Hua Phan Ban Saleui, Phou Pan (Mt.), ca 20°12'N 104°01'E, 1300–1900 m, 11 April–15 May 2012, C. Holzschuh leg. (NME).

Etymology. The species name means "eastern" in Latin.

Diagnosis. Body size, on average, greater (9.4–13.6 mm) than in the nominotypical subspecies, elytra more parallel-sided, metepisterna longer (see Kataev 2001: Fig. 51), mesotarsomere 1 of male with adhesive scales in apical part, penis with a dorsomedial spiny patch in internal sac (see Kataev 2001: Figs 34–37).

Distribution. The eastern part of the geographical range of the species: Myanmar, China (Yunnan, Taiwan), Vietnam and Laos.

Remarks. This new subspecies corresponds to "the eastern form" of *H. indicus* sensu Kataev (2001).

Harpalus (s. str.) *lopezi* Serrano et Lecina, 2009

Harpalus (*Baeticoharpalus*) *lopezi* Serrano et Lecina, 2009: 195.

Remarks. This brachypterous species was described recently based on five specimens from Sierra Morena (central Betic Mountains) in southern Spain (type locality: Pico de Almadén, Sierra Magina, 37.734421°N 3.523874°W, Jaén Province, Andalusia). According to the original description (Serrano and Lecina 2009), *H. lopezi* is “easily recognized from related species of *Harpalus*, particularly from the Iberian Peninsula, because of the unique combination of pubescence and mouth characters. The origin of the new species is uncertain. On morphological grounds there are no close relatives among the Iberian *Harpalus*”. Based on the combination of several characters (the pubescence of tempora, frons, pronotum and elytra, the lack of mentum tooth, the setose paraglossae and the absence of oblique carina on labial basal palpomere), the species was treated as a member of the new separate monotypic subgenus *Baeticoharpalus* Serrano et Lecina, 2009. I couldn’t study the type or any other specimens of this rare species, but on the basis of the original description I can state that *H. lopezi* is very similar and apparently closely related to *H. franzi* Mateu, 1954, also a brachypterous species distributed in the western portion of the Cantabrian Mountains in the northwestern part of the Iberian Peninsula. Unfortunately, there is no comparison with the latter species in the original description of *H. lopezi*. However, both species are similar in size, habitus and many other characters including those mentioned by Serrano and Lecina (2009) as the unique combination for *H. lopezi*: the pubescence of tempora, pronotum and elytra, the lack of mentum tooth, the setose paraglossae and the absence of oblique carina on labial basal palpomere; the male genitalia in both species are also rather similar to each other differing slightly in shape of the median lobe and in location of the two spiny patches of the inner sac [see redescription of *H. franzi* in Kataev 2002]. It should also be mentioned that unlike *H. lopezi*, *H. franzi* lacks any setae on frons. Interestingly enough, Mateu (1954) erected for *H. franzi* a new subgenus *Neoharpalus* which was synonymized by Jeanne (1970), correctly in my opinion (Kataev 2002), with *Licinoderus* Sainte-Claire Deville, 1905. The latter taxon, which is treated by some authors as a separate genus, was considered by me (Kataev 2002, 2009) within *Harpalus* s. str. as the *chobautianus* species group of the *atratus* phylogenetic line. This line includes also the *atratus*, *punctipennis*, *aeneipennis*, *potanini* and *honestus* species groups, altogether

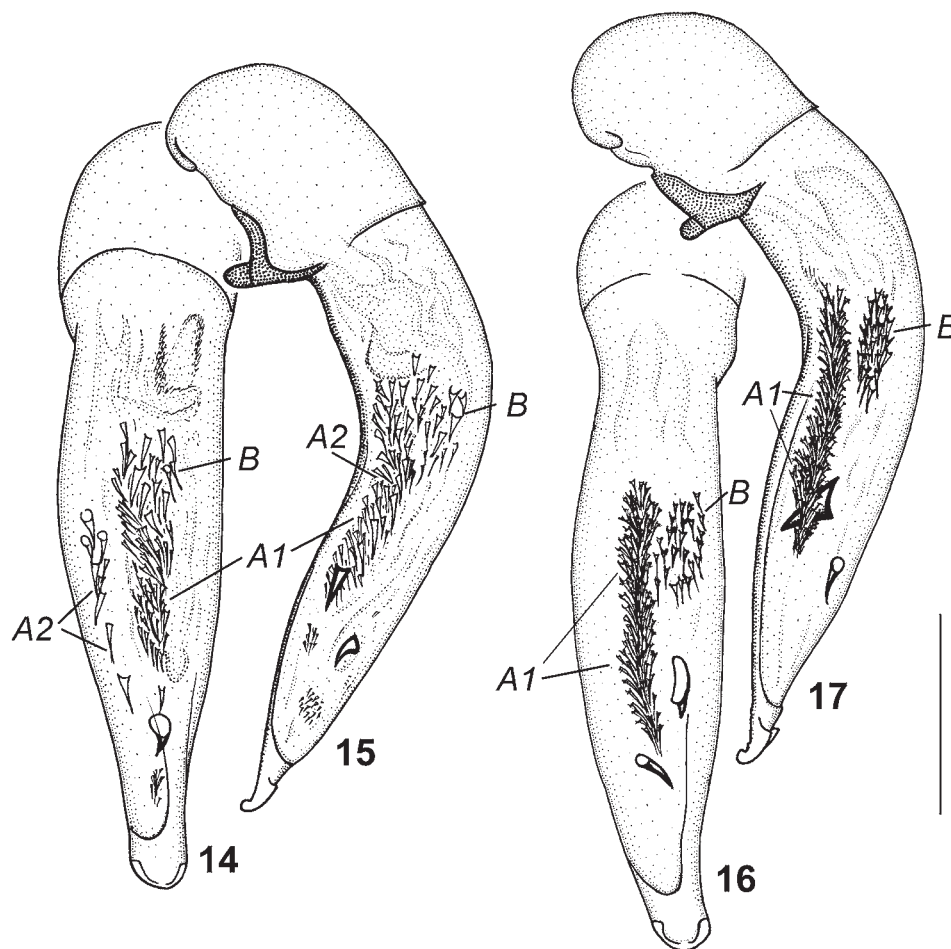
24 species distributed in the Western Palaearctic Region, mainly in mountainous areas. Judging from the similarity in many characters between *H. lopezi* and *H. franzi*, I believe that *H. lopezi* should also be included into the *chobautianus* species group and propose the following synonymy: *Harpalus* Latreille, 1802 = *Licinoderus* Sainte-Claire Deville, 1905 = *Neoharpalus* Mateu, 1954 = *Baeticoharpalus* Serrano et Lecina, 2009, syn. nov. Within the *chobautianus* species group, *H. lopezi* and *H. franzi* are more similar to each other than to the more distinct *H. chobautianus* Lutshnik, 1922 which occurs in the Pyrenees; the latter species is distinguished from *H. lopezi* and *H. franzi* by having the mentum dentate, the pronotum with an additional lateral setigerous pore before basal angles, the elytra without a parascutellar stria, and the median lobe of aedeagus with only one large spine in the inner sac.

***Harpalus* (s. str.) *politus* Dejean, 1829**
(Figs 14, 15)

Harpalus eberlovi Berlov, 1996: 7 syn. nov.

Type material. Holotype of *Harpalus eberlovi*: male, labelled “Altayskiy kray, p. Krasnoschekovo, 7.VI.84, E. Berlov” [in Cyrillic] and “Holotypus, *Harpalus eberlovi* sp. n., det. O. Berlov 96” (cOB).

Remarks. *Harpalus eberlovi* was described on the basis of one male from Krasnoschekovo Village (Altai Territory, Russia) as similar to *H. politus* but differing from it in the shape and armature of the inflated inner sac of the aedeagus. According to Berlov (1996), the inner sac of *H. eberlovi* has two large medial spiny patches as opposed to that of *H. politus*, which, like *H. serripes* Quensel, 1806, has only one medial spiny patch. However, the latter assertion is incorrect because in fact namely the inner sac of *H. politus* (Figs 14, 15) is distinguished from that of *H. serripes* (Figs 16, 17) by presence of two longitudinal medial spiny patches (indicated here as A1 and A2): the additional spiny patch (A2) in inverted position of the inner sac is located along the left side of the median lobe and very variable in number of spines. This spiny patch was present in all specimens of *H. politus* examined by me and never occurred in members of *H. serripes*. Besides, both *H. politus* and *H. serripes* have an additional oval dorso-medial spiny patch (indicated as B) which was not mentioned by Berlov (1996). I had an opportunity



Figs 14–17. *Harpalus*, median lobe of aedeagus. 14, 15 – *H. politus*; 16, 17 – *H. serripes* (14, 16 – dorsal view; 15, 17 – lateral view). A1, A2, B – spiny patches. Scale bar = 1.0 mm.

to study the holotype of *H. eberlovi* (unfortunately, without its aedeagus) and found that it is absolutely identical in external morphology with the males of the nominotypical subspecies of *H. politus* which is widely distributed in the Western Palaearctic eastwards to Yenisei River including the Altai Territory. Based on these facts and taking into account a possible variability of the genital structure in *Harpalus* even within one population, I believe that *H. eberlovi* is conspecific with *H. politus*.

***Harpalus* (s. str.) *subcylindricus* Dejean, 1829**

Harpalus ambigenus Reiche, 1853: 30 syn. nov.

Type material. Syntype of *Harpalus ambigenus*: specimen without fore and middle legs labelled “am-

bigenus mih. in Gall. occid. Brest” and “Trobert” (MNHN).

Remarks. *Harpalus ambigenus* (type locality: “près de Brest”, France) was treated previously as a synonym of *H. anxius* (Duftschmidt, 1812) (Kataev et al. 2003; Lorenz 2005). The examination of the syntype revealed the identity of this taxon to *H. subcylindricus*, which is widely distributed in the Western Palaearctic.

***Harpalus* (s. str.) *semipunctatus* Dejean, 1829**

Harpalus semipunctatus Dejean, 1829: 268.

Harpalus aesculanus Pantel, 1888: 223 syn. nov.

Type material. Lectotype of *Harpalus semipunctatus* (present designation; labelled as a lectotype by

J. Serrano, but this designation was not published): male, with labels “♂” and “*Semipunctatus* m. in Hispania” [Dejean’s handwriting], “LECTOTYPE” [print, on red paper], and “*Harpalus semipunctatus* Dejean, 1829 designado por J. Serrano” (MNHN); and 3 paralectotypes (1 male and 2 females): male without labels, females each with label “♀” (MNHN).

Remarks. According to the original description, *H. semipunctatus* was described from several specimens collected in “Espagne”, “Calabre” and “provinces meridionales de la Russie”. In the literature, *H. semipunctatus* was treated as a variety (Reitter, 1900; Jeannel, 1942) or a synonym (Kataev et al. 2003; Lorenz 2005) of the Transpalearctic *H. affinis* (Schrank, 1781); also its type locality was restricted to “Espagne” (Jeannel 1942). I examined a male syntype from “Hispania” which is designated here as lectotype [this specimen was already labelled as lectotype by José Serrano (Madrid), but this designation has never been published]. The examination of this specimen revealed the identity of *H. semipunctatus* to the Spanish endemic *H. aesculanus* belonging to the *affinis* species group sensu Kataev (1987). Thus *H. semipunctatus* is treated here as a valid name and a senior synonym of *H. aesculanus*.

ACKNOWLEDGEMENTS

I wish to express my sincere thanks to Martin Baehr (München), Oleg Berlov (Irkutsk), Thierry Deuve (Paris), Vladimir Gurko (Chernovtsy), Vladimir Gusarov (Oslo), Fritz Gusenleitner (Linz), Jiří Hájek (Prague), Matthias Hartmann (Erfurt), Mark Harvey and Peter Hudson (Adelaide), Walter Heinz (Schwanfeld), Hongbin Liang (Beijing), Kirill Makarov and Andrei Matalin (Moscow), Otto Merkl and Győző Szél (Budapest), Alfred Newton, Margaret Thayer and James Boone (Chicago), Nicolay Nikitsky (Moscow), Heinrich Schönmann (Vienna), Riccardo Sciaky (Milano), Bert Viklund and late Per Lindskog (Stockholm), David W. Wrase (Berlin) and Vladimir Zieris (Pardubice) for providing material used in this study. I am also very grateful to David W. Wrase, who read the manuscript and made some important remarks. The study was supported by the Russian Foundation for Basic Research (project No. 13–04–01002a) and Ministry of Education and Science of the Russian Federation.

REFERENCES

- Andrewes H.E. 1924. Mission Gui Babault dans les provinces centrales de l’Inde et dans la region occidentale de l’Himalaya 1914. Résultats scientifiques. Insectes coléoptères Carabidae. Générale Lahure, Paris, 125 p.
- Baehr M. 2004. First record of the Oriental ground beetle genus *Chydaeus* Chaudoir from Australia (Insecta, Coleoptera, Carabidae, Harpalinae). *Spixiana*, **27**(1): 19–22.
- Bates H.W. 1891. List of Carabidae (ord. Coleoptera) obtained by Père Cardon in Chota-Nagpore. *Annales de la Société Entomologique de Belgique*, **35**, Comptes–Rendus: 324–334.
- Berlov O.E. 1996. A new species of the ground beetles of the genus *Harpalus* Latreille (Coleoptera, Carabidae) from Altai. *Vestnik Irkutskoy gosudarstvennoy sel’skokhozyaystvennoy akademii. Sbornik nauchnykh trudov*, **2**: 7–9. [In Russian]
- Bousquet Y. 2002. Additions and corrections to the world catalogue of genus-group names of Geodephaga (Coleoptera) published by Wolfgang Lorenz (1998). *Folia Heyrovskyana, Supplementum*, **9**: 1–78.
- Dejean P.F.M.A. 1829. Spécies général des Coléoptères, de la collection de M. le Comte Dejean. Tome quadrième. Méquignon–Marvis, Paris, 520 p.
- Gusenleitner F. 1990. Die Typen der Carabidae–Sammlung Dr. Erwin Schaubberger am Oberösterreichischen Landesmuseum in Linz, Austria (Insecta: Coleoptera: Carabidae). *Linzer biologische Beiträge*, **22**(2): 725–785.
- Hieke F. 1988. Neue Arten und neue Synonyme in der Gattung *Amara* Bonelli, 1810 (Coleoptera, Carabidae). *Mitteilungen aus dem Zoologischen Museum Berlin*, **64**(2): 199–268.
- Hieke F. 1996. Revision der *Amara*–Untergattung *Amathitis* Zimmermann, 1832 (Coleoptera, Carabidae). *Coleoptera (Schwanfelder Coleopterologische Mitteilungen)*, **4**: 1–98.
- Hieke F. 2003. Subtribe Amarina Zimmermann, 1831. In: L. Löbl and A. Smetana (Eds). Catalogue of Palearctic Coleoptera. Vol. 1. Archostemmata – Myxophaga – Adepaga. Apollo Books, Stenstrup: 547–568.
- International Code of Zoological Nomenclature, 4th edition. 2000. The International Trust for Zoological Nomenclature, Saint Petersburg, 221 p.
- Ito N. 1995. Species of the genus *Harpalomimetes* (Coleoptera, Carabidae, Harpalini). *Elytra*, **23**(2): 267–282.
- Ito N. 2006. Two new species of the genus *Chydaeus* from China (Coleoptera: Carabidae: Harpalini). *Entomological Review of Japan*, **61**: 195–200.
- Jeanne C. 1970. Le genre *Licinoderus* Dev. (Coleopteres Harpalidae). *Bulletin Mensuel de la Société Linnéenne de Lyon*, **39**(7): 238–240.
- Jeannel R. 1942. Coléoptères Carabiques. Deuxième partie. Faune de France 40. Paul Lechevalier et Fils, Paris, p. 573–1173.
- Jedlička A. 1957. Neue Carabiden aus der paläarktischen Region (Col.). *Acta Entomologica Musei Nationalis Praegae*, **31**(473): 91–101.

- Jedlička A. 1966.** Weitere neue Carabiden aus Nepal (Coleoptera). *Khumbu Himal, Ergebnisse des Forschungsunternehmens Nepal Himalaya*, **1**(4): 237–242.
- Jedlička A. 1970.** Neue Carabiden aus Nepal (Coleoptera–Carabidae). *Khumbu Himal, Ergebnisse des Forschungsunternehmens Nepal Himalaya*, **3**(3): 439–440.
- Kataev B.M. 1987.** Ground-beetles of the genus *Harpalus* Latr. of the “*affinis*” group (Coleoptera, Carabidae). *Trudy Zoologicheskogo instituta AN SSSR*, **170**: 3–41. [In Russian]
- Kataev B.M. 1997.** Ground beetles of the genus *Harpalus* (Insecta, Coleoptera, Carabidae) from East Asia. *Steenstrupia*, **23**: 123–160.
- Kataev B.M. 2001.** To the knowledge of species of the subgenus *Pseudoophonus* (genus *Harpalus*) from the Himalayan region and Southern China (Coleoptera: Carabidae). *Zoosystematica Rossica*, **9**(2), 2000: 391–407.
- Kataev B.M. 2002.** Taxonomic, faunistic and nomenclatorial notes on certain Palaearctic and Oriental Harpalini (Coleoptera, Carabidae). *Linzer biologische Beiträge*, **34**(1): 721–736.
- Kataev B.M. 2009.** Ground-beetles of the genus *Harpalus* Latr. (Coleoptera, Carabidae) of the world: systematics, zoogeography, phylogeny. Abstract of the Doctor of Biological Sciences thesis. Saint Petersburg, 23 p. [In Russian]
- Kataev B.M., Liang, H. and Kavanaugh D.H. 2012.** Contribution to knowledge of the genus *Chydaeus* in Xizang Autonomous Region [Tibet] and Yunnan Province, China (Coleoptera: Carabidae: Harpalini). *Zookeys*, **171**: 39–92.
- Kataev B.M. and Schmidt J. 2006.** To the knowledge of the genus *Chydaeus* Chaudoir, 1854 (Coleoptera, Carabidae, Harpalini). II. Revision of the *C. obscurus*, *C. semenowi* (in new sense), and *C. salvazae* species-groups of the Himalaya and adjacent areas. In: M. Hartmann and J. Weipert (Eds). Biodiversität und Naturlausstattung im Himalaya II. Verein der Freunde und Förderer des Naturkundemuseums Erfurt e. V., Erfurt: 133–174.
- Kataev B.M., Wrase D.W. and Ito N. 2003.** Harpalina. In: L. Löbl and A. Smetana (Eds). Catalogue of Palaearctic Coleoptera. Volume 1. Archostemata – Myxophaga – Adephaga. Apollo Books, Stenstrup: 367–397.
- Kirschenhofer E. 1992.** Beitrag zur Kenntnis der Harpalinen des Himalaya: *Harpalus* Latreille und *Trichotichnus* Morawitz (Coleoptera: Carabidae). *Koleopterologische Rundschau*, **62**: 21–41.
- Lorenz W. 1998.** Systematic list of extant ground beetles of the world (Insecta Coleoptera “Geadephaga”: Trachypachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodinae). First Edition. Typeset and printed by W. Lorenz, Tutzing, 502 p.
- Lorenz W. 2005.** A systematic list of extant ground beetles of the world (Coleoptera “Geadephaga”: Trachypachidae and Carabidae incl. Paussinae, Cicindelinae, Rhysodinae). Second Edition. Typeset and printed by W. Lorenz, Tutzing, 530 p.
- Mateu J. 1954.** Notas sobre Carabidos españoles (2a nota). *Bulletin de l’Institut royal des Sciences naturelles de Belgique*, **30**: 1–8.
- Moore B.P., Weir T.A. and Pyke J.E. 1987.** Carabidae. In: J.F. Lawrence, T.A. Weir and J.E. Pyke (Eds). Coleoptera: Archostemata, Myxophaga and Adephaga. Zoological Catalogue of Australia, Volume 4. Australian Government Publishing Service, Canberra: 20–320.
- Motschulsky V. 1844.** Insectes de la Sibirie rapportés d’un Voyage fait en 1839 et 1840. *Mémoires présentés à l’Académie Impériale des Sciences de St.-Petersbourg par divers savans et lus dans ses assemblées*, **5**(1–3): 1–274.
- Motschulsky V. 1850.** Die Käfer Russlands. I. Insecta Carabica. W. Gautier, Moskau, 91 p.
- Noonan G.R. 1973.** The Anisodactylines (Insecta: Coleoptera: Carabidae: Harpalini): classification, evolution, and zoogeography. *Quaestiones Entomologicae*, **9**(4): 266–480.
- Pantel R.P.J. 1888.** Catalogue des Coléoptères carnassiers terrestres des environs d’Uclés avec les descriptions de quelques espèces et variétés nouvelles. *Annales de la Sociedad Española de Historia Natural*, **17**: 193–245.
- Reiche L. 1853.** Séance du 11 Mai 1853. Communications. *Annales de la Société Entomologique de France*, **1**: 29–30.
- Reitter E. 1900.** Bestimmungs-Tabelle der europäischen Coleopteren. Enthaltend: Carabidae, Abtheilung: Harpalini. *Verhandlungen des naturforschenden Vereines in Brünn*, **38**[1899]: 33–155.
- Schauberger E. 1929.** Beitrag zur Kenntnis der paläarktischen Harpalinen (V. Beitrag). *Coleopterologisches Centralblatt*, **3**(5–6): 179–196.
- Schauberger E. 1932.** Zur Kenntnis der paläarktischen Harpalinen (X. Beitrag). *Wiener Entomologische Zeitung*, **49**(1): 23–44.
- Serrano J. and Lencina J.L. 2008.** *Harpalus* (*Baeticoharpalus*) *lopezi*, new subgenus and new species of *Harpalus* from the Iberian Peninsula (Coleoptera, Carabidae: Harpalini). *Entomologica Fennica*, **19**: 193–198.
- Sloane T.G. 1920.** The Carabidae of Tasmania. *The Proceedings of the Linnean Society of New South Wales*, **45**: 113–178.