Linzer biol. Beitr. 27/1 319-330 16.8.1995	Linzer biol. Beitr.
--	---------------------

# Three new and two little-known Palaearctic Species of the Genus *Harpalus* LATR. (Coleoptera, Carabidae)

# B.M. KATAEV & D.W. WRASE

A b s t r a c t : Five Palaearctic species of the genus Harpalus LATR. are treated, three of which are newly described here: H. farkaci spec. nov. (Russia: Far East), H. kadleci spec. nov. (Turkey) and H. szalliesi spec. nov. (Turkey). H. rumelicus APFELBECK 1904 and H. petri TSCHITSCHERINE 1902 are regarded as species propria, not as synonyms of H. stierlini PONCY 1901. H. dispar DEJEAN 1829, forms three subspecies: H. dispar sp. dispar DEJ. (Western Mediterranean region), H. dispar ssp. splendens GEBLER 1830 (Balkan Peninsula to Western Siberia), H. dispar ssp. elegantulus MENETRIES, 1832 (Transcaucasia to Central Asia: Turkmenistan). A new synonym is established: H. dispar ssp. splendens GEBL. = H. stierlini PONCY syn. nov. The habitus of H. farkaci spec. nov., H. kadleci spec. nov., and the median lobes of four species dealt with here (H. farkaci spec. nov., H. kadleci spec. nov., H. rumelicus APFE. and H. petri TSCHIT.) are illustrated.

K e y w o r d s : Coleoptera, Carabidae, *Harpalus*, Far East of Russia, South Russia, Caucasus, Turkey, Iran, Italia, Balkans, new species, new synonymy, redescription.

### Material, Acknowledgment and Methods

This report is based on specimens coming from the following museums and private collections:

- WIEN Naturhistorisches Museum, Wien, Austria (H. Schönmann)
- ZIN Zoological Institute, Russian Academy of Science, St. Petersburg, Russia (B.M. Kataev)
- ZMB Zoologisches Museum, Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (F. Hieke, B. Jaeger)
- cFAR Coll. J. Farkač, Prague, Czech Republik
- cSCI Coll. R. Sciaky, Milano, Italia
- cWR Coll. D.W. Wrase, Berlin, Germany
- cZAM Coll. A.S. Zamotajlov, Krasnodar, Russia

We acknowledge with sincere thanks the assistance of the above mentioned colleagues in providing specimens for study.

Total body length was measured from the anterior margin of the clypeus to the elytral apex, the width of head as the maximum linear distance across the head, including

compound eyes, the length of pronotum from the anterior to the posterior margin along the mid-line, the length of elytra from the basal ridge in the scutellar region to the apex of the sutural angle, the width of pronotum and elytra at their broadest point.

# Results

Harpalus farkaci spec. nov.

(Figs. 1-3)

Type material: Holotype  $\delta$ : Russia or., Primorye, Chyorny Mts., Gryaznaya Riv., 13.-19.VI.1992, Jan Farkač leg. (cWR). Paratype  $\varphi$ , same data as the holotype (cFAR).

Description: Body length 8.4 mm, width in holotype 3.4 mm, in paratype 3.5 mm.

Body piceous black, shining, without any metallic hue. Labrum marginally, mandibles, except for their apices, anterior margin of clypeus, the narrow margin of pronotum and elytra and apical epipleura pale, antennae and legs unicolorous rufo-testaceous (habitus fig. 1).

Head comparatively large; mentum with a small tooth blunted at apex.

Pronotum moderately convex, 1.41-1.44 times as wide as long, 1.31-1.35 times wider than head, widest before the middle, slightly narrowed to the base. Sides with 1 setigerous pore, rounded anteriorly, more or less straight to the obtuse but rounded tip of hind-angle. Anterior margin weakly concave, hind margin slightly oblique laterally and with a weak emargination in its middle part. Pronotal base a little wider than elytral base; basal foveae of pronotum distinct, not deep, more or less oval, separated from the distinct, oblique lateral depressions by a flat vault; entire base and lateral depressions finely and densely punctate, basal edge not ciliate.

Elytra oval, slightly widened posteriorly, 1.41-1.45 times as long as wide, 2.40-2.44 times longer and 1.19 times wider than pronotum, widest approximately at middle. Basal edge bare, humeri angulate, with a small but sharp tooth. Lateral margin slightly sinuate behind shoulders; preapical sinuation weak in both sexes, without any denticle at its base; sutural angle of elytra sharp, in the female very slightly extended backwards in form of a very small acute tooth. Scutellar stria with basal pore-puncture; 3rd interval with 2-5 and 2nd interval with 1-2 rather large discal pores, situated generally near 2nd stria; 5th and 7th intervals without rows of pores before apex. Striae smooth, slightly impressed, intervals impunctate and not pubescent. Brachypterous, hind-wings reduced to very small rudiments.

Met-episterna (Fig. 3) short, weakly narrowed posteriorly, their width along anterior margin a little greater than length along inner margin. 3 penultimate abdominal sternites smooth and bare, only with the 2 obligatory setae. Apex of anal sternite without pronounced sexuel dimorphism. Outer distal margin of fore tibia with 3 spines, isolated from spines on lower surface, ventroapical tubercle of fore tibia with 1 spine

© Biologiezentrum Linz/Austria; download unter www.biologiezentrum.at

at apex. Hind femur with 3 setigerous pores along hind margin and with 1-3 very small pores near anterior margin in its distal part. Hind coxae and trochanters without additional pores. First segment of hind tarsi approximately 2.5 times as long as wide at its apical part; tarsi dorsally impunctate and not pubescent.

Microsculpture on upper surface of head, disk of pronotum and on disk of elytra strongly suppressed in the male but microscopic punctulation visible, on disk of elytra microsculpture distinct in the female: inner intervals with slightly transverse meshes, external intervals and apex with isodiametric meshes.

Median lobe (Fig. 2) moderately arcuate, with ostium shifted leftwards, terminal lamella relatively long and narrow, with an oblique horseshoe-like shaped apical capitulum. Armature of internal sac consisting of following elements: 2 individual teeth dorsally in apical half of penis (one of them is large, with a very broad base, 2nd is very small), 2 groups of rather small and thin spines ventrally at middle, and 2 spiny patches near apex of penis.

Comparisons: H. farkaci spec. nov. is closely related to the holarctic H. quadripunctatus DEJ. and to the East Asian H. tibeticus ANDR. The new species has in common with them both many structures of the internal sac of penis and the majority of external characters, the most important ones are: several discal pores on 3rd interval of elytra, pronotum with punctate base and with bare hind margin (not ciliate), abdominal sternites without additional setae, 1 spine at apex of ventroapical tubercle of fore tibia. Superficially seen, it is particularly similar to H. quadripunctatus, but this species, however, has relatively longer elytra (1.46-1.49 times as long as wide), the humeral tooth is smaller, the lateral margin of elytra behind the humeral region is practically without sinuation, and the median lobe has an extremely long and slender terminal lamella. H. tibeticus is on the average larger, relatively broader and flatter (body length 8.0-10.6 mm, width 3.3-4.4 mm) than the new species, the subapical sinuation of elytra is notably deeper and with a denticle at its base, hind coxa in medial part with one or more additional setigerous pores, and scutellar stria without basal pore-puncture. H. tibeticus is rather similar to H. farkaci spec. nov. in shape of median lobe but has a different armature of the internal sac of the penis without a large tooth and with a row of small teeth along the left side of the median lobe. Additionally, H. quadripunctatus and H. tibeticus are distinguished from the new species also by the met-episterna which are longer and more narrowed posteriorly (length usually a little greater than width, only in single specimens of *H. tibeticus* length and width equal), and strikingly by the better developed microsculpture on the upper surface of the body also in the male.

D i s t r i b u t i o n : The species was found in the south of the Primorskye territory (Far East of Russia) in the Chyorny [Black] Mountains near the Chinese border. Probably it can be found also in adjacent regions of China and Corea.

E t y m o l o g y : Named for our colleague and friend, the Czech specialist of Carabidae, Jan Farkač (Prague), who has collected the new species.

*Harpalus kadleci* spec. nov. (Figs. 4-7)

Type material: Holotype  $\delta$ : Turkey, vill. Bingöl, Kuruca Geç, 2390 m, 16.VI.1986, Kadlec et Vorišek leg. (cWR). Paratypes (same data as the holotype):  $1\delta$ ,  $1\phi$  (WIEN);  $1\delta$ ,  $1\phi$ (ZIN);  $4\delta\delta$ ,  $2\phi\phi$ (cWR).

Additional material (not designated as paratype): 13: Central Iran, Ciasmanè Khan (Abadeh), 29.V.1964, A. Perissinoto et Rigatti L.S. leg. (cSCI).

Description: Body length 8.3-9,9 mm (holotype 9.5 mm), width 3.4-4.1 mm (holotype 3.6 mm). Upper surface of body shining, dark piceus, labrum, mandibles, margins of pronotum and of elytra slightly brightened, lower surface black, palpi brownish yellow, antennae and legs dark brown, tarsi paler (habitus fig. 4).

Head with 2 pairs of additional supra-orbital setigerous pores beside the normal ones (in holotype and most of the paratypes), or only with 1 additional seta, or with the normal supra-orbital setigerous pores only (2 paratypes and the above mentioned specimen from Iran). Dorsally with fine, hairless punctuation. Mentum with distinct tooth rounded at apex.

Pronotum moderately convex, 1.33-1.41 (in holotype 1.36) times as wide as long and 1.38-1.46 (in holotype 1.45) times wider than head, widest just before middle, rounded at sides. Anterior margin weakly concave, hind margin almost straight, with only 2 very weak emarginations near distinct basal foveae, base slightly narrower than elytral base, basal edge bare, not ciliate. Anterior and posterior angles obtuse, rather widely rounded at tip. Lateral flattened areas very narrow, only slightly widened posteriorly, completely covered with distinct punctuation dorsally, particularly coarse in basal range. Several large setigerous pores along the whole lateral margins, on lateral portion of anterior margins, on disk inside the anterior angles and even in basal foveae.

Elytra elongate, very weakly widened posteriorly, 1.46-1.57 (holotype 1.57) times as long as wide, 2.38-2.51 (in holotype 2.48) times longer and 1.16-1.24 (in holotype 1.16) times wider than pronotum. Basal edge bare, humeri rounded, with a very small denticle, hardly visible. Lateral margin evenly widened behind humeri, preapical sinuation very weak, barely discernable. Sutural angle sharp in the males and weakly dentate in the females, striae slightly impressed, distinctly punctate, scutellar stria with basal pore-puncture. Intervals somewhat flat, near apex with sparse small punctures bearing short hairs, this punctuation somewhat more extended in the females, 3rd interval in apical quarter with 1 discal pore near 2nd stria, 5th and 7th intervals without rows of setigerous pores before apex.

Prosternum with rather long setae. Met-episterna strongly narrowed posteriorly, their length along inner margin much greater than their width along anterior margin. Abdominal sternites with numerous rather long additional setae. Apex of anal sternite slightly truncate in the males, rounded and with a small tubercle in the females. Outer margin of fore tibia with 3 spines isolated from spines on lower surface of tibia, ventro-apical tubercle of fore tibia with 1 spine at apex. Hind femur along hind and

anterior margins with numerous setigerous pores. First segment of hind tarsi short, approximately equal to 2nd, 1.6 times as long as wide in its apical portion, tarsi dorsally with sparse punctures bearing short hairs.

Microsculpture on upper surface visible only on labrum and external intervals of elytra, consisting of isodiametric meshes, elytra mat by strong developed microsculpture in the females.

Median lobe (Fig. 5-6) with 2 bends ventrally: first in basal part just behind the basal bulb, 2nd weaker, in apical part. Ostium shifted slightly leftwards. Terminal lamella short and broad, apical capitulum strongly inclined. Internal sac without macrospines, only a narrow tongue-like spiny patch faintly visible in its middle portion. The specimen from Iran has a more slender median lobe, more curved in basal part and without the bend in apikal part (Fig. 7).

Comparisons: H. kadleci spec. nov. belongs to the subgenus Artabas DES GOZIS by having the following characters specific for this subgenus: Several lateral setigerous pores on pronotum, 1 spine at apex of ventro-apical tubercle of fore tibia, rather long pubescence on prothorax and on abdominal sternites, very faint subapical sinuation of elytra, penis with short terminal lamella and without teeth-like armature in internal sac. Concerning the rather widely rounded hind-angles of pronotum, the presence of punctuation and pubescence on elytra, the penis form the new species is similar to the very variable H. dispar DEJ. which forms several allopatric taxa (dispar DEJ., splendens GEBL., elegantulus MEN.). H. dispar can be distinguished from H. kadleci spec. nov. by possessing a fringe of short hairs in the middle part of the hind edge of the pronotal base, the pubescence on upper surface of head and along the margins of pronotum (sometimes faintly visible), and more extended punctuation on elytra which occupies at least all 3 external intervals. The penis of H. dispar in apical part without ventral bend, its internal sac without a tongue-like spiny patche. With its round hindangles and its unciliate hind edge of pronotum the new species also agrees with two other species of Artabas: H. rumelicus APFELBECK and H. petri TSCHITSCHÉRINE (on these species see below). But these species can be distinguished very easily from H. kadleci spec. nov. by having impunctate and nonpubescent intervals of elytra, impunctate striae and a different penis structure. Besides, in H. rumelicus, the head and pronotum are also distinctly pubescent on disk.

Distribution: So far known only from the type locality in Eastern Turkey (here *H. kadleci* spec. nov. occurs in sympatry with *H. suturangulus* REITT. and *H. punctatostriatus* DEJ.) and from central Iran.

Etymology: Named for one of the collectors of the typical serie, the Czech specialist of Cerambycidae, Stanislav Kadlec (Lítvinov).

Harpalus szalliesi spec. nov. (Figs. 8-9)

? Harpalus splendens sensu REITTER 1900: 77 (non GEBLER 1830)

Type material: Holotype Q: Turkey, Anatolia, Tuz Gölü, 21.IV.1987, A. Szallies leg. (cWR).

Description: Body length 12.1 mm, width 4.9 mm.

Body dark piceous, pronotum and especially elytra with dim green hue. Palpi, antennae and epipleura of elytra brown, legs dark brown (habitus fig. 8).

Head comparatively large, nonpubescent and impunctate dorsally. Pronotum moderately convex, 1.42 times as wide as long and 1.44 times wider than head, widest before middle. Sides evenly rounded and slightly convergent posteriorly. Hind-angles rather widely rounded, anterior margin weakly concave, hind-margin almost straight with its edge with fringe of short hairs, notably narrower than elytral base. Basal foveae oval, rather deep, separated from the lateral depressions by distinct vaults. Dorsum almost entirely punctate and pubescent, punctuation on disk fine and sparse, in basal foveae coarse and dense. Lateral margins with several setigerous pores from anterior to hind-angles.

Elytra elongate, slightly widened posteriorly, 1.54 times as long as wide, 2.75 times longer and 1.26 times wider than pronotum. Basal edge bare, humeri rounded, without a denticle. Preapical sinuation deep, without a denticle at its base, sutural angle acute, sharp at tip (Fig. 9). Striae slightly impressed along their entire length, impunctate, scutellar stria with a basal pore-puncture. Intervals flat, odd intervals with large setigerous punctures along their entire length, arranged more or less in rows on each interval, the 2 external intervals with fine punctuation and pubescence.

Prosternum with rather long setae. Met-episterna strongly narrowed posteriorly, their length along its inner margin much greater than their width along its anterior margin. Abdominal sternites densely setose, anal sternite sligthly enlarged at apex. Outer distal margin of fore tibia with 6 spines isolated from spines on lower surface. Ventro-apical tubercle of fore tibia with 1 spine at apex and 3 smaller additional ones, laterally, arranged with the former in a transverse row. Hind femora with numerous setigerous pores along hind and anterior margins. First segment of hind tarsi short, scarcely longer than 2nd. and about 1.7 times as long as wide in its apical portion, tarsi dorsally impunctate and nonpubescent.

Microsculpture on upper surface of head absent, on disk of pronotum developed only along the lateral margins, meshes fine isodiametric or weak transverse, on disk of elytra very distinct throughout, isodiametric.

C o m p a r i s o n s : As the preceeding species, *H. szalliesi* spec. nov. belongs to the subgenus *Artabas*. The new species is very well characterized by the deep preapical sinuation of the elytra. In all other species of *Artabas* the preapical sinuation is either lacking or very weak, in the females the elytra are often truncate at apex. In some characters of pronotum (rounded hind-angles, ciliate basal edge, presence of discal

pubescence) *H. szalliesi* spec. nov. is similar to *H. dispar* DEJ., but it is distinguished from this species, apart from the form of elytral sinuation, by its impunctate and nonpubescent head, the peculiar elytral punctuation and the larger body (in *H. dispar* body length 6.5-10.8 mm, width 2.6-4.4 mm). In elytral punctuation the new species reminds of *H. suturangulus* REITTER, but differs from it by the deep preapical sinuation of the elytra, by the form of pronotum with the hind-margin ciliate and by the body colour. In *H. suturangulus* the hind-angles of pronotum are sharp, the sides are straight before the hind-angle, the hind-margin lacks a fringe of short hairs, the body colour is dark brown without any metallic lustre.

D is c u s s i o n : According to REITTER (1900: 77) the deep preapical sinuation of the elytra is a significant characteristic of the large (9-12 mm) Artabas-species from the Caucasus which also possesses rounded hind-angles of the pronotum, a punctate disk of the elytra and a broad apical spur of the fore tibia. This species was erroneously interpreted by him as H. splendens GEBL. As synonyms to this species, probably on geographical principle, Reitter listed H. colchicus MOTSCH., H. elegantulus MÉN. and H. setimargo REITT. i. litt. In fact, as TSCHITSCHÉRINE (1901: 140) had already correctly noted, both in *splendens* and in *elegantulus* the elytra are without a deep preapical sinuation and the body is smaller and therefore the synonymy given by Reitter was to be considered wrong. Taking this into account, Tschitscherine proposed to use the name colchicus MOTSCH. (= setimargo REITT.) for the Caucasian species mentioned above. However, both these names are not available. MOTSCHULSKY (1850: 31) published the former name without any diagnosis, so the name *colchicus* has to be treated as nomem nudum. REITTER (1900: 77) cited the name setimargo originally as a junior synonym of splendens, it was never used as a valid name. Besides, TSCHITSCHÉRINE (1901: 153) pointed out that in two typical female specimens of setimargo which he had examined, the preapical sinuation was not deeper than that in dispar and splendens. This doesn't agree with the description of Reitter and consequently colchicus sensu TSCHITSCHÉRINE is probably identical to the Transcaucasian elegantulus which represents one of the geographical forms of H. dispar.

Although we could not investigate the authentic specimens of Reitter we believe with reason that *H. szalliesi* spec. nov. and *H. splendens* sensu REITTER are conspecific. Most of the characters mentioned by Reitter for his "*splendens*", especially such important ones as the deep preapical sinuation of the elytra, the large body size and the shape of the pronotum with the rounded hind-angles correspond well with those of *H. szalliesi* spec. nov. It is possible that the differences between them in elytral vestiture and in the form of the apical spur of the fore tibia (in *H. szalliesi* spec. nov. the apical spur normally formed like in the other species of *Artabas*) are due to an individual or geographical variation of the same species.

Distribution: So far known only from the type locality.

E t y m o l o g y : Dedicated to the collector of this interesting species, the specialist for Buprestidae, Alexander Szallies (Stuttgart).

Harpalus rumelicus APFELBECK (Figs. 12-13)

Harpalus rumelicus APFELBECK 1904: 188 Harpalus stierlini auct. (non PONCY 1901)

D i a g n o s i s : This rare halophilous species belonging to the subgenus *Artabas* DES GOZIS 1883, is characterized by the elytra with smooth, impunctate intervals and striae and by the pronotum with rounded hind-angles and without a fringe of very short hairs at the hind edge. Head dorsally, at least near the frontal impressions and under the eyes and on disk of pronotum with distinct punctuation and pubescence. Punctures on disK of pronotum inside anterior angles, near hind-angles and in basal foveae very coarse bearing hairs particularly long. Median lobe (Figs. 12-13) moderately arcuate, with a terminal lamella comparatively very long and slender for a species of *Artabas*. Colour brown or dark brown, elytra with a weak bluish metallic lustre, especially in males. Body length 10.6-11.7 mm, width 4.2-5.1 mm.

Distribution: Very sporadic in the north of the Appenine Peninsula: Venezia Giulia (MAGISTRETTI 1965: 289, under the name *H. stierlini*), Emilia, and on the Balkans: Istria, Dobrudsha (MÜLLER 1931: 54, under the name *H. stierlini*), Burgas, (APFELBECK 1904: 188).

Material examined: 333, 399: Italia, Emilia, Tramuschio, 14.IV.1910, 1.V.1910, 14.IV.1911, A. Fiori (ZIN, ZMB, cSCI, cWR); 13: Venetia Giulia, Noghera, 5.IV.1912, Springer (WIEN); 13: Noghera, 5.V.1912, A. Schatzmayer (cSCI).

Discussion: H. rumelicus was described from Eastern Bulgaria (near Burgas). MÜLLER (1931) considered this species as a junior synonym of H. stierlini PONCY 1901, described from Eastern Rumania: "Rives du Lacul-Sarat près de Braila" and "Iglitsa (Dobroudja)". We had no opportunity to examine the types of these species but judging from their original descriptions it was evident that this synonymy was incorrect. According to APFELBECK (1904: 188) H. rumelicus has widely rounded hindangles of the pronotum and impunctate elytral intervals, by combination of both these characters this species is distinguished from H. punctatostriatus DEJ., H. dispar DEJ. and H. suturangulus REITT. Contrary to this PONCY (1901: 196) noted that H. stierlini "...ressemble au H. dispar, mais en diffèr par les élytres entierement ponctuées...". In actuality H. dispar has a very variable elytral punctuation in geographical respect. In the males of the nominotypical subspecies distributed in the western Mediterranean region punctures occur only on the external intervals (in the females also on inner intervals) but in the subspecies splendens GEBL. which inhabits the steppe zones of Eurasia from the Balkan Peninsula to western Siberia, the elytra in both sexes are entirely punctate. So it is manifest that the description of H. stierlini agrees completely with the characteristics of the last mentioned subspecies of splendens. Obviously Poncy knew only the western Mediterranean form of H. dispar that he redescribed the taxon which had already had the valid name splendens. Therefore we can make the

conclusion that the name *rumelicus* is a valid name for the species described in this section and that the name *stierlini* is to be considered a junior synonym of *splendens*:

Harpalus dispar splendens GEBLER 1830

= H. stierlini PONCY 1901, syn. nov.

# Harpalus petri TSCHITSCHÉRINE (Figs. 10-11)

Harpalus (Artabas) petri TSCHITSCHÉRINE 1902: 598

D i a g n o s i s: Very similar to the preceeding species, so that it was even considered as a junior synonym to it (CSIKI 1932: 1125), but *H. petri* is well separated from it by lacking pubescence on head and disk of pronotum (although these parts are rather densely punctate) and by the comparatively broader penis with a very short and wide terminal lamella (Figs. 10-11). The row of lateral setigerous pores on the pronotum extends a little onto the anterior and hind margins. There are also several setigerous pores on disk near the anterior margin between the median line and the anterior angles and in the basal foveae. Contrary to *H. rumelicus*, these pores are clearly differentiated from the hairless punctuation of the pronotum in *H. petri*.

Body length 9.6-10.7 mm, width 3.5-4.3 mm.

Distribution: Described from a single specimen from Novotsherkassk (Rostov Region). Very rare species, only few specimens are so far known from the lower course of the river Don and from the Taman Peninsula (ZAMOTAJLOV 1992, under the name *H. stierlini*) and from south-eastern Turkey.

Material examined: Holotype & with labels: "Don", "Novocherk. Kiriaev" (in Russian), "Petri m. Typ. Tschitschérin det" (ZIN), and 6 specimens: 1&, Novotsherkassk, Aksay, 11.VI.1913, V. Kiserizky (ZIN); 2 o o, Tsymla, 16.VI. and 25.VII.1924 (ZIN, cWR); 1&, 1o, Taman, Zamotajlov (cZAM); 1 o with doubtful label "Yurjev, [=Tartu], V 1901, G. Sumakov" (ZIN). 1&, Turkey, Konya, 28.V.1981, G. Sama (cSCI).

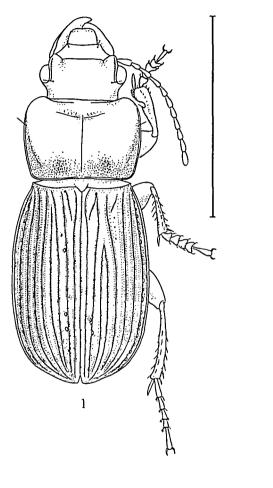
# Zusammenfassung

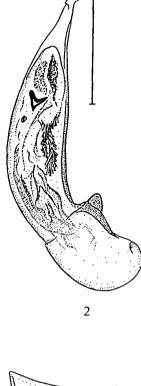
Es werden fünf paläarktische Arten der Gattung Harpalus LATR. behandelt, drei davon werden neu beschrieben: H. farkaci spec. nov. (Rußland: Ferner Osten), H. kadleci spec. nov. (Türkei), H. szalliesi spec. nov. (Türkei). H. rumelicus APFELBECK 1904 und H. petri TSCHITSCHERINE 1902 besitzen eigenen Artstatus und sind keine Synonyme von H. stierlini PONCY 1901. H. dispar DEJEAN 1829 bildet drei Rassen: H. dispar dispar DEJ. (westliches Mediterrangebiet), H. dispar splendens GEBLER 1830 (Balkanhalbinsel bis westliches Sibirien), H. dispar splendens GEBL 1830 (Balkanhalbinsel bis westliches Sibirien), H. dispar ssp. splendens GEBL, wird erkannt: H. stierlini PONCY 1901 syn. nov. Von H. farkaci spec. nov., H. kadleci spec. nov. und H. szalliesi spec. nov. werden Habitusabbildungen, von vier Arten (H. farkaci spec. nov., H. kadleci spec. nov., H. kadleci

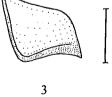
# References

- APFELBECK V. (1904): Die Käferfauna der Balkanhalbinsel, mit besonderer Berücksichtigung Klein-Asiens und der Insel Kreta, 1. Caraboidea: I-IX, 1-422. Berlin.
- CSIKI E. (1932): Carabidae, Harpalinae, 6. In: JUNK W. & S. SCHENKLING, Coleopterorum Catalogus 3/121: 1023-1278. Berlin.
- GEBLER F.A. (1830): Bemerkungen über die Insecten Sibiriens, vorzüglich des Altai. In: Ledebur's Reise durch das Altai-Gebirge und die songorische Kirgisen-Steppe 2/2: 523-751. Berlin.
- MAGISIRETTI M. (1965): Fauna d'Italia, 8. Coleoptera: Cicindelidae, Carabidae. Catalogo topografico: I-XV, 1-512. Bologna.
- MULLER G. (1931): Carabiden-Studien. 2. Fortsetzung. Coleopt. Centralblatt 5/1: 41-78.
- PONCY E. (1901): Faune de la Roumania. Coléoptères recoltés en 1899 par Mr. le Dr. Jaquet et determinés par Mr. E. Poncy à Genève. Bull. Soc. sc. Buc. 10: 483-479.
- REITTER E. (1887): Neue Coleopteren aus Europa, den angrenzenden Ländern und Sibirien, mit Bemerkungen über bekannte Arten. 4. — Deutsche ent. Z. 31/2: 497-528.
- REITTER E. (1900): Bestimmungs-Tabelle der europäischen Coleopteren, 41. Carabidae: Harpalini u. Licinini. Verh. naturf. Ver. Brünn 37: 33-150 (Separatum).
- TSCHITSCHERINE T. (1901): Einige Bemerkungen zu Reitter's Bestimmungstabelle der Harpalini. Horae Soc. Ent. Ross. 35: 125-155,
- TSCHITSCHERINE T. (1902): Bemerkungen über Harpalini (Coleoptera, Carabidae). Horae Soc. Ent. Ross. 35: 584-597.
- ZAMOTAILOV A.S. (1992): Fauna of ground-beetles (Coleoptera, Carabidae) of the North-West Caucasus. — Kuban State Agrarian University: 1-77 (in Russian). Krasnodar.

Addresses of the authors:	Boris M. KATAEV,
	Zoological Institute, Russian Academy of Science,
	University embankment 1, 188034 Saint Petersburg, Russia.
	David W. WRASE,
	Dunckerstr. 78, D-10437 Berlin, Germany.

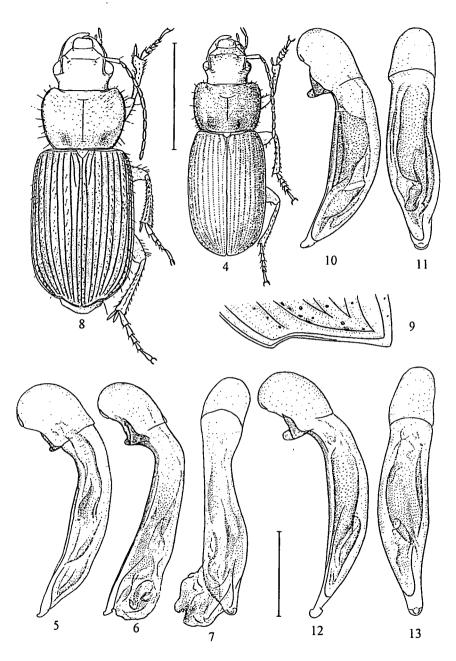






Figs. 1-3: *H. farkaci* spec. nov. 1: Habitus (HT). 2: Median lobe, lateral aspect(HT). 3: Left metepisternum. Scale bar = 5 mm (Fig. 1), 1 mm (Fig. 2), 05 mm (Fig. 3).

© Biologiezentrum Linz/Austria; download unter www.biologiezentrum.at



Figs. 4-7: *H. kadleci* spec. nov. 4: Habitus (HT). 5-7: Median lobe, lateral and dorsal aspect. 5: HT. 6-7: Cismanè. Figs. 8-9: *H. szalliesi* spec. nov. 8: Habitus (HT). 9: Preapical sinuation of left elytron (HT). Figs. 10-13: Median lobe, lateral and dorsal aspect. 10-11: *H. petri* (HT, Don). 12-13: *H. rumelicus* (Emilia). Scale bar = 5 mm (Figs. 4,8), 1 mm (Figs. 5-7,9-13).

# **ZOBODAT - www.zobodat.at**

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 1995

Band/Volume: 0027\_1

Autor(en)/Author(s): Kataev Boris M., Wrase David W.

Artikel/Article: <u>Three new and two little-known palaearctic species of the genus</u> <u>Harpalus LATR. (Coleoptera, Carabidae). 319-330</u>