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## New taxa of the genus *Harpalus* LATR. from China and Turkey (Coleoptera, Carabidae)

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**Abstract:** Five new species of the genus *Harpalus* are described from China: *H. lama* sp.n. and *H. ascetes* sp.n. from Tibet, *H. puetzi* sp.n. from Shaanxi, as well as *H. kaznakovi* sp.n. and *H. beneshi* sp.n. from Sichuan. It was found that *H. anatolicus* TSCHITSCHÉRINE 1898, distributed in the western part of Anatolia, forms four subspecies, two of which are newly described here: *H. anatolicus lydius* ssp.n. and *H. anatolicus lycius* ssp.n. The name *H. anatolicus caricus* nom.n. is proposed for *H. anatolicus nigripes* J. SAHLBERG 1913 (non STURM 1818, non DALLA TORRE 1877), the lectotype of which is designated. A key to all four subspecies of *H. anatolicus* is given.

**Key words:** Coleoptera, Carabidae, *Harpalus*, new species, new subspecies, China, Tibet, Shaanxi, Sichuan, Turkey, Anatolia.

### Material, Methods and Acknowledgements

The paper is based on specimens housed in the following museums and private collections:

- NMW ..... Naturhistorisches Museum, Vienna (H. Schönmann, E. Kirschenhofer)  
MNHUB ..... Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (M. Uhlig, B. Jaeger)  
SMNST ..... Staatliches Museum für Naturkunde, Stuttgart, Germany (W. Schwallier)  
ZSSM ..... Zoologische Staatssammlung, Munich, Germany (M. Baehr)  
ZISP ..... Zoological Institute, Russian Academy of Sciences, Saint Petersburg, Russia (O.L. Kryzhanovskij, B.M. Kataev)  
ZMUH ..... Zoological Museum of the University, Helsinki, Finland (H. Silfverberg)  
cBU ..... Coll. P. Bulirsch, Lovosice, Czech Republic  
cCA ..... Coll. A. Casale, Sassari, Italy  
cFA ..... Coll. S. Facchini, Piacenza, Italy  
cHZ ..... Coll. W. Heinz, Schwanfeld, Germany  
cKA ..... Coll. S. Kadlec, Litvínov, Czech Republic  
cSC ..... Coll. R. Sciaky, Milano, Italia  
cSN ..... Coll. P.H. Schnitter, Halle, Germany  
cST ..... Coll. K. Staven, Lengede (Broistedt), Germany  
cWR ..... Coll. D.W. Wrase, Berlin, Germany  
cZA ..... Coll. A. Zamotajlov, Krasnodar, Russia

Total body length was measured from the anterior margin of the clypeus to the elytral apex, the width of head (WH) as maximum linear distance across the head, including compound eyes, the length of pronotum (LP) from the anterior margin to the posterior margin along the mid-line, the length of elytra (LE) from the basal ridge in the scutellar region to the apex of the sutural angle, the width of pronotum (WP) and elytra (WE) at their broadest point.

We are pleased to express appreciation for their cooperation to the curators and collectors mentioned under „material“, who loaned us many of the specimens on which this study is based. We thank our friend and colleague P.C. Cate (Vienna) for his valuable linguistic comments on the manuscript.

## Results

### *Harpalus puetzi* sp.n. (Figs. 1-3)

Type material: Holotype ♂: China, Shaanxi, Qin Ling Shan Mt., 108.47° E/33.51° N, W pass autoroute km 70, 47 km S Xian, 2350-2500 m, 7-19.VII.1996, Kleinfeld & Schütze leg. (cWR). Paratypes: 1 ♂, same data as the holotype (cWR); 2 ♂, Qin Ling Shan Mt., 107.56° E/33.45° N, autoroute km 93 S of Zhouzhi, 108 km SW Xian, mountain forest, sifted, 1650 m, 1-2.IX.1995, A. Pütz leg. (cWR; ZISP).

Description (♂): Body length 9.2-10.8 mm, width 5.4-6.4 mm (in holotype 10.3 and 6.0 mm, respectively).

Body dark brown to black, without any metallic tinge, shiny; head anteriorly and base of mandibles, narrow margins of pronotum and elytra slightly paler; palpi, antennae and legs brown, femora scarcely infuscated.

Habitus fig. 1.

Head of medium size, 0.70-0.71 times as wide as pronotum, very finely punctate dorsally; eyes convex. Mental tooth distinct, acute.

Pronotum moderately convex, 1.46-1.51 times as wide as long, widest before the middle, slightly narrowed posteriorly. Sides with one setigerous pore, rounded anteriorly, straight or weakly sinuate before obtuse hind angles rounded at tip. Anterior margin with rather strong arcuate emargination, anterior angles slightly protruding, narrowly rounded at tip. Hind margin with weak emargination in its middle part. Pronotal base a little wider than elytral base or equal to it. Basal foveae small, not deep, oval, separated from the usually distinct, oblique lateral depressions by a flat vault; dorsum along margins densely punctate: coarser basally, finer anteriorly and laterally. Basal edge not ciliate.

Elytra moderately convex, oval, widest at the middle or behind it, 1.38-1.43 times as long as wide, 2.37-2.49 times longer and 1.11-1.18 times wider than pronotum.

Humeri angulate, with strong tooth protruding laterally. Basal edge glabrous, almost straight medially and slightly curved laterally; it meets lateral margin at an obtuse angle with a distinct tip. Preapical sinuation deep, with a distinct obtuse denticle at its base; sutural angle rounded at tip. Scutellar stria with a basal pore, 3rd interval with 1 discal pore just behind the middle (in one specimen with 2 pores on the right side); 5th and 7th intervals without rows of pores before apex. Striae smooth, slightly impressed; intervals flat, glabrous, very finely punctate (outer intervals more distinctly). Wings reduced to small scales.

Upper surface with microsculpture developed on labrum and along lateral margins of elytra; meshes slightly transverse or isodiametric.

Prosternum anteriorly and laterally with very short pubescence. Metepisterna short and broad, their width along anterior margin greater than length along inner margin. Base of three last abdominal sternites with very short pubescence. Outer distal margin of fore tibia with 3 spines isolated from spines on lower surface, ventroapical tubercle of fore tibia with 1 spine. Hind femur with 4, sometimes 3 or 5, setigerous pores along hind margin and with 3-5 small pores near anterior margin in its distal part. Hind coxae usually with an additional pore medially; hind trochanters near hind margin with only one obligatory setigerous pore. Hind tarsi rather slender, 1st tarsomere approximately 2.7-2.9 times as long as wide at its apical part; tarsi scarcely punctate and pubescent dorsally.

Median lobe (Figs. 2-3) slightly arcuate, with ostium shifted to the left; terminal lamella widened apically, with oblique horseshoe-like apical capitulum. Armature of internal sac consists of a large longitudinal compact group of teeth and a small separate tooth on the right side behind the middle of the median lobe.

**C o m p a r i s o n s :** A rather isolated species well recognized by the combination of the following features: upper surface finely punctate, glabrous, humeral tooth strong, preapical sinuation of elytra rather deep, with a denticle at its base, metepisterna short, transverse, and tarsi dorsally punctate and pubescent. It resembles the European *H. marginellus* DEJEAN 1829 of the *H. latus* group in having a similar habitus, the short metepisterna and the strong humeral tooth but it differs by the much deeper preapical sinuation of elytra and the distinct dorsal punctation. In spite of the fact that *H. puetzi* sp.n., as a rule, possesses only one discal pore on 3rd interval, it is most likely to be somewhat related to the species of the *H. quadripunctatus* group (*H. quadripunctatus* DEJEAN 1829, *H. tibeticus* ANDREWES 1930, and *H. farcaci* KATAEV & WRASE 1995). *H. puetzi* sp.n. shares with them not only most of the external characters but also some structures of the male genitalia, in particular a single tooth in the internal sac, lacking in the species of the *H. latus* group. It should be pointed out that, at least in *H. quadripunctatus* and *H. tibeticus*, the discal pores on 3rd elytral interval are variable in number and specimens of both species with only one discal pore are known.

*H. puetzi* sp.n. is also similar to the species of *Pseudoophonus* MOTSCHULSKY 1844 in having the elytral intervals punctate and tarsi dorsally pubescent, but it is easily distinguished from them by the presence of the discal pore on 3rd elytral interval.

**Distribution:** Known only from Qin Ling Shan Mts. in the Chinese province of Shaanxi.

**Etymology:** Named after our friend and colleague, the specialist of Byrrhidae and Coccinellidae, A. Pütz (Eisenhüttenstadt, Germany), who collected a part of the type series of this interesting species, for the generous gift of his excellent material.

***Harpalus beneshi* sp.n. (Figs. 4, 5)**

**Type material:** Holotype ♂: China, N Sichuan, Miansizhen, 24.VI.1996, Beneš leg. (cWR).  
Paratype: 1 ♀, same data as the holotype (ZISP).

**Description:** Holotype: body length 6.6 mm, width 2.9 mm, Paratype: 7.4 and 3.4 mm.

Body black, shiny, without any metallic tinge; palpi and antennae brownish-yellow; femora dark brown to black, tibiae and tarsi brownish, tibiae infuscated apically.

Habitus fig. 4.

Head of medium size, 0.61-0.62 times as wide as pronotum, with moderately convex eyes. Mental tooth distinct, acute.

Pronotum moderately convex, 1.46-1.51 times as wide as long, widest at the middle or just behind it, narrowed slightly stronger anteriorly than posteriorly. Sides with one setigerous pore, rounded anteriorly, more or less straight posteriorly. Anterior margin with distinct emargination, anterior angles slightly protruding, rounded at tip. Hind margin almost straight, scarcely oblique laterally in holotype. Hind angles obtuse, blunt at tip in holotype, narrowly rounded in paratype. Pronotal base scarcely narrower than elytral base. Basal foveae of pronotum not deep, small, longitudinal, reaching the pronotal base; lateral oblique depressions indistinct. Dorsum entirely impunctate, with only few very fine punctures within basal foveae. Basal edge not ciliate.

Elytra moderately convex, oblong oval, weakly rounded at sides, widest approximately at the middle, 1.39-1.42 times as long as wide, 2.49-2.51 times longer and 1.20 times wider than pronotum. Humeri angulate, with small tooth. Basal edge glabrous, more or less straight medially, curved forward laterally, meeting the lateral margin at a right angle with distinct tip. Preapical sinuation weak in both sexes, sutural angle rather sharp. Scutellar stria with basal pore; 3rd interval with 1 discal pore in apical quarter; 5th and 7th intervals without rows of pores before apex. Striae smooth, slightly impressed; intervals basally flat, scarcely convex apically, impunctate and not pubescent.

Upper surface with microsculpture; meshes distinct, more or less isodiametric, but weakly transverse on head and pronotum of male.

Prosternum with very short pubescence near anterior margin. Metepisterna rather strongly narrowed posteriorly, their length along inner margin only slightly greater than width along anterior margin. Abdominal sternites glabrous, the two penultimate ones with only 2 obligatory setae; apex of anal sternite without pronounced dimorphism. Outer distal margin of fore tibia with 3-4 spines isolated from spines on lower surface; ventroapical tubercle of fore tibia with 1 spine at apex. Hind femur with 4 setigerous pores along hind margin and usually one pore near anterior margin in its distal part. Hind coxae with an additional pore medially; hind trochanters near hind margin with only 1 obligatory setigerous pore. Tarsi dorsally impunctate and glabrous. Hind tarsi rather short, 1st tarsomere approximately 2.5 times as long as wide at its apical part.

Median lobe (Fig. 5) moderately arcuate, with apical ostium shifted to the left; terminal lamella of medium length, with oblique horseshoe-like apical capitulum. Armature of internal sac consisting of: a) a medial group of small and rather slender teeth, b) a few groups of spiny patches in apical half of median lobe, and c) two small individual teeth, one of them in basal half and the other in apical half of median lobe.

**Comparisons:** It is rather difficult to define the position of *H. beneshi* sp.n. among the other species. In external features and male genitalia, it is most similar to the East Mediterranean *H. flavicornis* DEJEAN 1829, belonging to the *H. serrripes* group, which also includes *H. serrripes* (QUENSEL 1806), *H. pseudoserrripes* REITTER 1900, and *H. politus* DEJEAN 1829. *H. flavicornis* is larger (7.4-9.3 mm) and more convex than the new species, its pronotum is relatively larger with basal foveae much more coarsely punctured, and the hind coxae are without additional pores. Besides, the two species are also distinguished by the male genitalia: in *H. flavicornis* the apical capitulum is more strongly inclined to the main longitudinal axis of the median lobe, the proximal individual tooth in the internal sac is absent and there are also some differences between both species in position and number of spiny patches. *H. beneshi* sp.n. has a superficial resemblance to some species of the *H. tardus* group, especially to the Eurasian *H. modestus* DEJEAN 1829 and the mainly European *H. albanicus* REITTER 1900, but is distinguished from them first of all by the more convex body, and secondly, by the male genitalia with individual teeth in the internal sac.

**Distribution:** Known only from the type locality in the Chinese province Sichuan.

**Etymology:** Dedicated to our estimated colleague V. Beneš (Usti nad Labem, Czech Republic), who has always offered interesting material to us.

***Harpalus kaznakovi* sp.n. (Figs. 6-8)**

**Type material:** Holotype ♂: China, NW Sichuan, road Luhuo-Sartar, pass 35 km NNE Luhuo, alpine region, 3500-4000 m, 27.VII.1994, L. Kaláb leg. (cWR); 1 ♂, same data as the holotype (cFA), 1 ♀, same locality as the holotype but region of Thuya and Picea forest, 3000-3500 m, 29.VII.1994, L. Kaláb leg. (cSC); 1 ♀, road Luhuo-Sartar, 40 km SSE Sertar, coniferous forest, 2800 m, 11.VII.1994, L. Kaláb leg. (cWR); 2 ♂♂, 2 ♀♀, road Sertar-Darcang, 20 km SSE Darcang, 4000 m, 15.VII.1995, L. Kaláb leg. (cFA, cSC, cWR); 1 ♂, same locality, but 15.-17.VII.1995 (cWR); 1 ♀, basin of Yangtze River, Gochyu River, 13 500', V.1901, exp. Kozlov leg. (ZISP).

**Description:** Body length 7.0-7.7 mm, width 2.8-3.4 mm (in holotype 7.1 and 3.3 mm, respectively).

Body dark-brown to black; upper surface metallic, green or coppery; palpi antennae and legs dark, almost black, palpomeres apically, two basal antennomeres and tibiae basally rufo-testaceous.

Habitus fig. 6.

Head comparatively large, 0.58-0.68 times as wide as pronotum, with weakly convex eyes. Mental tooth well developed, blunt at tip.

Pronotum rather convex, very variable in proportions, 1.26-1.57 times as wide as long, widest before the middle, slightly narrowed posteriorly. Sides with one setigerous pore, rounded anteriorly, straight or slightly sinuate before obtuse hind angles; the latter blunt or narrowly rounded at tip. Anterior margin with weak arcuate emargination; anterior angles weakly protruding, rounded at tip. Hind margin almost straight, very weakly sinuate bilaterally. Pronotal base a little narrower than elytral base. Basal foveae of pronotum distinct, not deep, longitudinal, reaching the basal margin, separated from lateral margin by a flat vault; oblique lateral depressions indistinct. Base of pronotum finely punctate and wrinkled or (in specimen from Gochyu River) smooth, with punctures restricted to basal foveae. Basal edge not ciliate.

Elytra convex, oval, very variable in proportions, widest just behind the middle, 1.29-1.43 times as long as wide, 2.17-2.46 times longer and 1.05-1.16 times wider than pronotum. Humeri angulate, with small tooth. Basal edge glabrous, weakly sinuate; it meets the lateral margin at an obtuse angle with distinct tip. Preapical sinuation weak, without denticle at its base; sutural angle blunt at tip. Scutellar stria with or (in holotype and in some paratypes) without basal pore. 3rd interval without discal pores (in holotype and in some paratypes) or with one very fine pore in apical quarter; 5th and 7th intervals without row of pores before apex. Striae smooth, very fine, superficial; intervals flat, impunctate and not pubescent. Wings reduced to small scales.

Upper surface with distinct microsculpture: meshes isodiametric on elytra, scarcely transverse on head and pronotum.

Prosternum anteriorly and laterally with very short pubescence. Metepisterna short

and broad, their width along anterior margin greater than length along inner margin. The 2 penultimate abdominal sternites glabrous, with only 2 obligatory setae. Apex of anal sternite without pronounced sexual dimorphism. Outer distal margin of fore tibia with 3 spines isolated from spines on lower surface; ventroapical tubercle of fore tibia with 1 spine at apex; this tubercle much larger in the male than in the female. Hind femur with 4, sometimes 5, setigerous pores along hind margin and 0-2 pores near anterior margin in its distal part. Hind coxae either without additional pores or with a small pore medially; hind trochanters with only an obligatory setigerous pore near hind margin. Hind tarsi comparatively short, 1st tarsomere approximately 2.3-2.5 times as long as wide at its apical part; tarsi impunctate and glabrous dorsally.

Median lobe (Figs. 7-8) arcuate, with ostium shifted to the left; terminal lamella rather narrow and long, more or less parallel-sided (dorsal aspect), scarcely curved dorsally, with small horseshoe-like apical capitulum inclined to the longitudinal axis of penis. Armature of internal sac consists of 2 small spiny patches in basal half of median lobe.

**Comparisons:** *H. kaznakovi* sp.n. belongs to the *H. vittatus* group which was recently revised by KATAEV (1990). Like other members of this group the new species possesses bicoloured antennae, glabrous abdominal sternites, fore tibia with 1 spine at apex of ventroapical tubercle and penis with small spiny patches and without individual teeth in internal sac. *H. kaznakovi* sp.n. is easily distinguished from all the known species of the *H. vittatus* group by the short metepisterna combined with the metallic colour of body. Based on the structure of the male genitalia with rather long terminal lamella, the new species seems to be more related to *H. mlynari* KATAEV 1990, described from Qinghai, China.

**Distribution:** Known only from Sichuan, China.

**Etymology:** Named after A.N. Kaznakov, the Russian explorer of Central Asia, a member of the Kozlov expeditions to Mongolia and China in 1899-1901.

### ***Harpalus lama* sp.n. (Figs. 9-13, 17-18)**

**Type material:** Holotype ♂: China, Tibet m., Lhasa env., 4000 m, 18.VI.1995, Dr. J. Hrabal leg. (cWR). Paratypes: 2 ♀♀, same data as the holotype (cWR, cBU); 1 ♂, 1 ♀, Tibet or., Basumco, 10-12.VI.1995, Dr. J. Hrabal leg. (cBU, ZISP).

**Description:** Body length 6.4-8.0 mm, width 2.7-3.4 mm (in holotype 7.6 and 3.3 mm, respectively).

Body dark brown to black, without any metallic tinge, shiny (especially in the males); narrow margins of labrum, pronotum and elytra slightly paler. Palpi and antennae brownish-yellow; legs brown, femora and tibiae often infuscated apically.

**Habitus** fig. 9.

Head large, 0.76-0.79 times as wide as pronotum, without constriction behind eyes;

the latter moderately or weakly convex. Mental tooth very small, just barely defined. Pronotum convex, rather broad, 1.52-1.59 times as wide as long, widest before the middle, slightly narrowed posteriorly and rounded at sides. Anterior margin with weak arcuate emargination; anterior angles not protruding, rounded at tip. Hind margin bilaterally concave, more or less straight medially. Hind angles broadly rounded. Pronotal base notably narrower than elytral base. Basal foveae of pronotum small, longitudinal, separated from lateral margins by convexities; oblique lateral depressions very weak or absent. Dorsum entirely impunctate (sometimes with a few indistinct punctures in basal foveae); basal edge ciliate.

Elytra rather convex, oval, evenly rounded at sides, widest approximately in the middle, in males 1.35-1.41 times as long as wide, 2.62 times longer and 1.17-1.25 times wider than pronotum (in females these indices are 1.29-1.37, 2.45-2.66 and 1.21-1.24, respectively). Humeri very obtuse, not angulate, with a tiny acute tooth at tip (visible only from behind). Basal edge with short erect hairs, slightly sinuate, meeting the lateral margin at an obtuse angle with distinct tip (Fig. 17). Preapical sinuation moderately deep in both sexes, without any denticle at its base (Fig.18); sutural angle blunt at tip in the male, extending slightly backward forming a very small acute tooth in the female. Scutellar stria usually with basal pore (the latter occasionally absent); 3rd interval with 1-2 discal pores behind the middle; 7th and often also 5th intervals with short row of pores before apex; striae smooth, superficial; intervals flat, impunctate and not pubescent. Wings reduced to small scales.

Upper surface with microsculpture developed on head only on labrum and behind the eyes, on pronotum along margins (usually also on disc in female) and on elytra throughout (more distinct in female); meshes isodiametric or (sometimes on head behind eyes and on pronotum) slightly transverse.

Prosternum with very short pubescence only near anterior margin. Metepisterna short and broad, their width along anterior margin greater than length along inner margin. The 2 penultimate abdominal sternites, in addition to the 2 obligatory setae, with a few additional shorter setae. Apex of anal sternite without pronounced sexual dimorphism. Outer distal margin of fore tibia usually with 4, sometimes 3, spines isolated from spines on lower surface; ventroapical tubercle of fore tibia with 2 spines at apex. Hind femur with 5, sometimes 6, setigerous pores along hind margin and several pores near anterior margin. Hind coxae with a few small additional pores medially; hind trochanters with only 1 obligatory setigerous pore. Hind tarsi comparatively short, 1st tarsomere approximately 2.5-2.7 times as long as wide at its apical part; tarsi dorsally impunctate and glabrous.

Median lobe (Figs. 10-13) arcuate, with ostium shifted to the left; terminal lamella rather short, more or less parallel-sided (dorsal aspect), with small horseshoe-like apical capitulum inclined scarcely toward longitudinal axis of penis or almost transverse. Armature of internal sac consists of a large apical spiny patch and 3-4 smaller ones proximally; individual teeth absent.

**C o m p a r i s o n s :** *H. lama* sp.n. may be referred to the species of the *H. autumnalis*



group (MLYNAŘ 1979, KATAEV 1993) on the base of the following characters: dorsum glabrous, pronotum impunctate basally, pronotal and elytral basal edges ciliate, 7th and often also 5th elytral intervals with short row of pores before apex; the 2 penultimate abdominal sternites with sparse additional setae, and peculiar pattern of armature of internal sac of aedeagus consisting of only spiny patches, without individual teeth. More than 1 discal pore on 3rd elytral interval is also a common characteristic of many members of the *H. autumnalis* group. With respect to its habitus, the new species is rather dissimilar to any other species of that group and is well recognized by small body and broad pronotum with broadly rounded hind angles.

In some characters of the external morphology (impunctate and glabrous elytra, 2 spines at apex of ventroapical tubercle of fore tibia, short metepisterna, rather deep preapical sinuation of elytra), *H. lama* sp.n. agrees with *H. kunarensis* KATAEV 1993, from eastern Afghanistan and it seems to be most closely related to this species. *H. kunarensis* is, however, larger and more slender (body length 8.6-10.6 mm, width 3.0-3.6 mm), its head is relatively smaller (0.65-0.70 times as wide as pronotum), the pronotum is narrower (1.36-1.52 times as wide as long) and dorsal microsculpture is more distinct and well-developed everywhere. Both species differ in penis structure, too.

**Distribution:** Known only from south-eastern Tibet, China.

**Etymology:** The name is derived from the name for monk in Tibet.

***Harpalus ascetes* sp.n. (Figs. 14-16, 19-20)**

**Type material:** Holotype ♂: China, SC Tibet, W Kangtissu Shan Mts., Nakaehr-Chueshui, 4800-5200 m, 9-12.VI.1995 (cWR). Paratypes: 1 ♂, 1 ♀, same data as the holotype (cWR; ZISP); 1 ♂, Tibet, Gyatso-la, E Lhatse, 4500-4600 m, 13./15.VII.1996, W. Heinz leg. (cHZ). 3 ♂ ♂, 2 ♀ ♀, China, E Tibet, Djosola Pass env., 4700 m, 24.VI.1995, P. Gorbatshev (ZISP, cZAM, cWR).

**Description and comparisons:** Very similar in external features to *H. lama* sp.n. On the average somewhat scarcely smaller: body length 5.9-6.8 mm, width 2.7-3.0 mm (in holotype 6.6 and 2.9 mm, respectively). Mental tooth small, but distinct, acute. Humeri without tooth. Basal edge of elytra meeting the lateral margin at a more obtuse angle without distinct tip (Fig. 19). Preapical sinuation of elytra weaker, sutural angle in male sharp, not blunt at tip (Fig. 20). 3rd elytral interval sometimes without discal pores. On the average, the body is wider, the elytra relatively longer: head 0.75-0.80 times as wide as pronotum; the latter 1.58-1.63 times as wide as long; elytra in males 1.31-1.37 times as long as wide, 2.71-2.85 times longer and 1.25-1.33 times wider than pronotum (in female these indices are 1.32-1.38, 2.75-2.86 and 1.27-1.28, respectively). Both species differ markedly in male genitalia (Figs. 14-16): in *H. ascetes* sp.n. the terminal lamella of the median lobe is strongly curved dorsally and widened apically, stronger formed than in *H. lama* sp.n., apical capitulum inclined much more strongly toward longitudinal axis of penis. Armature of internal sac consists of: a) a large curved longitudinal

spiny patch and b) a short spiny patch basally.

**Discussion:** *H. ascetes* sp.n. and *H. lama* sp.n. are very similar to each other in appearance and are based on specimens taken from geographically isolated localities. In principle, they could be considered two subspecies of a single species, but great differences in their male genitalia (as great as usually among sympatric species of the autumnalis group) together with the fact that specimens with intermediate characters are unknown, we treat both taxa as separate species.

**Distribution:** Known only from the type locality.

**Etymology:** The specific epithet derives from the Greek word *áskesis* (ascetism), the basis of the life of the Tibetan monks.

### ***Harpalus anatolicus* TSCHITSCHÉRINE 1898**

*Harpalus anatolicus* TSCHITSCHÉRINE 1898: 187

**Discussion:** This species was described within the *H. autumnalis* group from Angora (=Ankara). It is distinguished from allied species by the combination of short metepisterna (their width along anterior margin is greater than length along inner margin - Fig. 22), dark antennal segments, one spine at apex of ventroapical tubercle of fore tibia, and by blunt or rounded apex of hind pronotal angles.

*H. anatolicus* occurs in the western part of Anatolia, eastwards at least to Samsun and the western part of Gaziantep Vilayet. According to our data, the species forms four subspecies in the mountains of West Anatolia which can be determined using the following key.

#### **Key to the subspecies of *H. anatolicus***

1. Terminal lamella of median lobe short, only scarcely widened apically; internal sac with a small apical spiny patch situated at an angle to the main longitudinal axis of penis and isolated from the rather large, oblong median spiny patch (Figs. 28-39). Preapical situation of elytra weak or absent (Figs. 25-27), sutural angle of female usually dentiform (Fig. 26), rarer rectangular (Fig. 27). Pronotum, as a rule, widest behind the middle, not or only weakly narrowed basally ..... *H. anatolicus anatolicus*
- Terminal lamella of median lobe longer, distinctly widened apically; apical spiny patch, if present, almost parallel with the main longitudinal axis of penis. Preapical situation of elytra weak or rather deep, sutural angle of female sharp, but usually not dentiform. Pronotum widest at the middle or behind it. .... 2
2. Apical capitulum of median lobe rather small (lateral aspect); internal sac with apical spiny patch connected with median spiny patch (Figs. 62-70). Preapical situation of elytra weak or moderately deep (Figs. 71-73). Pronotum usually widest behind the middle ..... *H. anatolicus lycius* ssp.n.

- Apical capitulum of median lobe larger; apical spiny patch, if present, isolated from median spiny patch. Preapical sinuation of elytra rather deep (Figs. 49-50, 60-61). Pronotum usually widest at the middle, more or less strongly narrowed basally..... 3
- 3. Median lobe without apical spiny patch in internal sac (Figs. 40-45). Body, on average, larger: length 8.3-10.3 mm. .... *H. anatolicus lydius* ssp.n.
- Median lobe with longitudinal apical spiny patch sometimes divided into two patches (Figs. 51-59). Body, on average, smaller: length 8.1-9.0 mm. ....  
..... *H. anatolicus caricus* nom.n.

### ***Harpalus anatolicus* ssp. *anatolicus* TSCHITSCHÉRINE 1898 (Figs. 23-39)**

*Harpalus anatolicus* TSCHITSCHÉRINE 1898: 187

*Harpalus scutariensis* REITTER 1900: 107

**Material examined:** Syntype of *Harpalus scutariensis* REITTER, ♀ with labels "Scutari" and "scutariensis n." (ZISP), and 125 specimens: Turkey, Eskişehir: 4♂♂, 5♀♀, env. Çifteler, 8.V.1965, Blumenthal leg. (cHZ); 7♂♂, 7♀♀, Seyitgazi env., 26.IV.1996, S. Kadlec leg. (cKA, cWR); 2♂♂, 2♀♀, ca. 16 km NW Seyitgazi, 1100 m, 9.IX.1990, Heinz leg. (cHZ); 1♂, Sarayören, ca. 14 km NW Seyitgazi, 1100 m, 7.IV.1989, Heinz leg. (cWR); 2♂♂, 2♀♀, Sultanözü near Eskişehir, 1000 m, IV.1973, Heinz leg. (cHZ); 1♀, env. Mihaliççik, 1700 m, 14.IV.1985, D. Bernhauer leg. (cHZ); 5♂♂, 5♀♀, Eskişehir, Bodemeyer leg. (MNHUB; ZISP); 1♂, 1♀, Hekimdağ env., 28.IV.1996, S. Kadlec leg. (cKA, cWR). - Çanakkale: 3♂♂, Sarıkaya env., SE Ödemiş, 23.IV.1996, S. Kadlec leg. (cKA, cWR). - Kütahya: 2♂♂, 2♀♀, 19 km NE Aslanapa, 1050 m, 23.IV.1978, Heinz leg. (cHZ). - Afyon-Karahisar: 1♂, 1♀, Kaflica, 31 km E Afyon, 900 m, 18.IV.1976, Heinz leg. (cHZ); 2♂♂, 2♀♀, Koçatepe, 1800 m, 7.V.1965, Blumenthal leg. (cHZ); 3♂♂, 2♀♀, Cay, 16.IV.1980, D. Bernhauer leg. (cHZ); 1♂, Sultan-dağ, S of Çay, 1400-2000 m, 15.VIII.1971, Heinz leg. (cHZ); 1♂, 1♀, Emir-dağ, 1100 m, 14.IV.1973, Heinz leg. (cHZ). - Konya: 3♂♂, 4♀♀, Sultan-dağ, near Çankurtaran, 1500-1700 m, 15.IV.1973, Heinz leg. (cHZ, cWR); 2♂♂, 2♀♀, Sultan-dağ, near Engelli, 1500 m, 4.IV.1990, Heinz leg. (cHZ); 3♂♂, Sultan-dağ, Bodemeyer leg. (MNHUB, ZISP); 1♂, 1♀, Sultan-dağ, 1800 m, 1.IV.1971, Czipka leg. (cHZ); 12♂♂, 9♀♀, Akşehir, Bodemeyer leg. (MNHUB, SMNST, ZISP, cHZ); 1♂, Akşehir, 1000 m, 1.IV.1971, Czipka leg. (cHZ); 1♂, Akşehir, 20.V.1926, Kulzer leg. (ZSSM); 1♂, Argithani, 1100 m, 31.III.1978, Heinz leg. (cHZ); 4♂♂, Konya (ZISP); 1♀, Konya, 1899, Korb leg. (cHZ). - Ankara: 1♀, Ankara (ZISP); 1♂, 1♀, ca. 20 km S Cakal, 1200 m, 9.IV.1981, Heinz leg. (cHZ); 1♀, Yenice, 1150 m, 30.III.1983, Heinz leg. (cHZ). - Samsun: 1♀, 10 km NW Vesirkopru, 5.IV.1982, D. Bernhauer leg. (cHZ). - Gaziantep: 1♂, between Hasse and Kilis, S Musabeyli, 800 m, 20.IV.1974, Heinz leg. (cHZ). - Isparta: 1♀, Barladagi Mts., Kaymaz hill near Barla, 1200-1800 m, 29.IV.1992, Borovec leg. (cWR); 1♂, W Barla, 1500 m, S. Kadlec leg. (cKA); 2♀♀, Karacaören near Senirkent, 1300 m, 30.III.1978, Heinz leg. (cHZ); 1♀, env. Egirdir, ca. 1000 m, 29.III.1978, Heinz leg. (cHZ); 1♂, Egirdir-gölü, 1000 m, 7.V.1965, Blumenthal leg. (cHZ). - Adana: 1♂, Maden, leg. Bodemeyer ("Bulghar Maaden", MNHUB). - 1♂, 1♀, "Asia Minor, Kelecsenyi" (ZISP); 1♀, „Kurdistan, Tatal-Agri“, 1700 m, 25.III.1977, Gobetti leg. (cCA).

**Description:** Median lobe (Figs. 28-39) with terminal lamella rather short, more or less parallelsided, only scarcely widened apically (dorsal aspect), apical spiny patch in internal sac small, situated at an angle to the main longitudinal axis of penis and isolated from the rather large, oblong median spiny patch. Preapical sinuation of elytra weak or absent (Figs. 25-27), sutural angle of female usually slightly extended backward in form of a small acute tooth (Fig. 26), rarely rectangular (Fig. 27). Pronotum, as a rule, widest behind the middle (sometimes at the middle), not or weakly narrowed basally (Fig.24); basal foveae weak, smooth or finely punctate; punctures along lateral margins of pronotum usually absent. Upper surface black, sometimes with bluish or greenish tinge.

Proportions (7 ♂♂, 6 ♀♀):

	WP/LP	LE/WE	LE/LP	WE/WP	WH/WP
♂♂	1.47-1.56	1.31-1.43	2.35-2.46	1.11-1.23	0.63-0.66
♀♀	1.47-1.60	1.30-1.34	2.39-2.55	1.19-1.22	0.62-0.66

Body length 7.6-9.1 mm

**Distribution:** North-western and central parts of Anatolia (Fig. 74, a).

**Remarks:** *H. scutariensis* was described from specimens taken in Scutari (= Uskudar) and Angora (= Ankara). It was synonymized with *H. anatolicus* by MLYNÁŘ (1979) after the examination of the types of the both species. The male examined from Egirdir-gölü possesses the median lobe with longer terminal lamella (Figs. 34-36) and thus demonstrates a transition to *H. anatolicus lycius* ssp.n. with respect to this character.

It is interesting to note that the single male examined from Gaziantep Vilayet (the southeastermost locality) is also characterized by rather long terminal lamella of median lobe (Figs. 37-39). Its taxonomical position needs further investigation. A female from the same region („Kurdistan, Tatal-Agri“) has a weak preapical sinuation of elytra, a dentiform sutural angle and a pronotum, only weakly narrowed basally and agrees in this characteristics with typical *H. anatolicus*. A male from Maden (in the Bolkar Dağları), a locality also fairly southeasternward, has also a terminal lamella of median lobe like members of the typical subspecies.

### *Harpalus anatolicus lydius* ssp.n. (Figs. 21-22, 40-50)

**Type material:** Holotype ♂: Turkey, Izmir, 10 km N Bozdağ, 30.III.1986, D. Bernhauer leg. (cWR). Paratypes: 4 ♂♂, 7 ♀♀, same data as the holotype (cWR, ZISP); 2 ♂♂, 1 ♀♀, 5 km W Bozdağ, 6.IV.1980, D. Bernhauer leg. (cHZ); 2 ♂♂, 2 ♀♀, Bozdağ-koy, 8.IV.1988, D. Bernhauer leg. and III.1986, Czipka leg. (cWR, ZISP); 7 ♂♂, 3 ♀♀, 11 km SW Bozdağ, 6.IV.1980, D. Bernhauer leg. (cWR, ZISP); 5 ♀♀, pass near Torbali, 7.IV.1980, D. Bernhauer leg. (cWR, ZISP); 2 ♂♂, 1 ♀♀, Bozdağ, 1200 m, 3.IV.1980, Czipka leg. (cHZ, ZISP); 1 ♀, N Bozdağ (S Salihli), 1500 m, 22.IV.1996, S. Kadlec leg. (cKA); 1 ♀, Bozdağ, leg. Bodemeyer (MNHUB).

**Additional material** (not designated as paratypes): 2 ♀♀, Balıkesir, Kazdağ, Edremit, 700 m, IV.1983 (cWR); 4 ♂♂, Kütahya, ca. 11 km NE Simav, Gölcük-dağı, 1250 m, 7.IV.1990, Heinz leg. (cHZ, cWR, ZISP); 4 ♂♂, 3 ♀♀, Simav Dağları, 20.IV.1996, S. Kadlec leg. (cKA, cWR); 2 ♂♂, 1 ♀, 22.IV.1996, S. Kadlec leg. (cKA, cWR); 1 ♂, 2 ♀♀, SW Buldan (SE Alaşehir), 23.IV.1996, S. Kadlec leg. (cKA, cWR); 2 ♀♀, 21.IV.1996, S. Kadlec leg. (cKA, cWR); 2 ♂♂, 1 ♀, W Ödemiş, (SE Izmir), 22.IV.1996, S. Kadlec leg. (cKA, cWR); 1 ♂, 3 ♀♀, Sandıklı env. (S Afyon), 26.IV.1996, S. Kadlec leg. (cKA, cWR).

**Description:** Median lobe (Figs. 40-45) with terminal lamella moderately long, distinctly widened apically (dorsal aspect); apical capitulum somewhat larger; apical spiny patch in internal sac absent; median spiny patch small, oval. Preapical sinuation of elytra (Figs. 49-50) rather deep, without a denticle at its base; sutural angle of female usually not extended backward in form of an acute tooth (Fig. 50). Pronotum widest

at the middle, distinctly narrowed basally; basal foveae in most cases distinct, punctate; punctures along lateral margin of pronotum usually present.

Elytra, on the average, relatively longer than in the nominotypical subspecies. Upper surface with bluish tinge, rarer unicolorously black, without bluish tinge.

Proportions (7 ♂♂, 6 ♀♀):

	WP/LP	LE/WE	LE/LP	WE/WP	WH/WP
♂♂	1.46-1.56	1.31-1.44	2.48-2.58	1.16-1.26	0.61-0.67
♀♀	1.42-1.53	1.31-1.40	2.52-2.60	1.26-1.28	0.63-0.65

Body length 8.3-10.3 mm

**Distribution:** Mountains of westernmost Anatolia including Bozdağ, Gölcükdagi and probably Kazdağ (Fig. 74, b).

**Remarks:** The males examined from Gölcük-dagi as well as some males from the Simav Dağlari and from Ödemiş have the median lobe with slightly larger apical capitulum (Figs. 43-48); in the internal sac of one of them the traces of an apical spiny patch are recognizable (Figs. 46-48). In these features these specimens are slightly similar to those of *H. anaticus caricus* nom.n.

**Etymology:** The name is derived from Lydia, the ancient Greek state in western Asia Minor.

### *Harpalus anaticus caricus* nom.n. (Figs. 51-61)

*Harpalus anaticus nigripes* J. SAHLBERG 1913: 30 (non STURM 1818, non DALLA TORRE 1877).

**Material examined:** Lectotype ♂ (present designation) with labels "Baba Dagh", "Anatol", "5225", "H. (Harpalobius) nigripes n.sp." (ZMUH); and 7 specimens: Turkey, Mugla: 1 ♂ 3 ♀♀, env. Kafaca near Yatağan, 2.IV.1990, Heinz leg. (cHZ, ZISP); 3 ♂♂, 40 km NE Yatağan, 9.IV.1988, D. Bernhauer leg. (cWR, ZISP).

**Description:** Very similar to *H. anaticus lydius* ssp.n., but apical capitulum of median lobe larger (lateral aspect), internal sac constantly with apical spiny patch (Figs. 51-59). The latter (sometimes divided into two patches) more or less parallel with the main longitudinal axis of penis and isolated from median spiny patch. Upper surface black, usually without colourous metallic tinge.

Proportions (4 ♂♂, 4 ♀♀):

	WP/LP	LE/WE	LE/LP	WE/WP	WH/WP
♂♂	1.44-1.54	1.40-1.42	2.45-2.65	1.15-1.22	0.62-0.67
♀♀	1.49-1.55	1.32-1.35	2.57-2.68	1.28-1.31	0.63-0.67

Body length 8.1-9.0 mm

**Distribution:** Mountains of south-western Anatolia within the limits of the vilayets Denizli and Mugla (Fig. 74, c).

**Etymology:** The name is derived from Caria, the ancient Greek state in the south-west of Asia Minor.

***Harpalus anatolicus lycius* ssp.n. (Figs. 62-73)**

**Type material:** Holotype ♂: Turkey, Antalya, env. Korkuteli, ca. 1000 m, 4.V.1992, H. Heinig leg. (cWR). Paratypes: 4♂♂, 4♀♀, same data as the holotype (cWR, ZISP); 14♂♂, 4♀♀, env. Ulucak, S Korkuteli, ca. 1400 m, 15.IV.1992, K. Staven leg. (cST, cSN, cWR); 2♂♂, 4♀♀, Yesilobe, 45 km SW Korkuteli, 12.IV.1980, D. Bernhauer leg. (cHZ, ZISP); 2♂♂, 2♀♀, pass between Tefenni and Korkuteli, 1300-1500 m, 27.III.1978, Heinz leg. (cHZ, ZISP); 1♂♂, Asia minor, Provinz Antalya, 20 km W Korkutel, 1400m, 23.IV.1987, Steiner leg. (NMW).

**Description:** Very similar in male genitalia to *H. anatolicus caricus* ssp.n., but terminal lamella more slender, apical capitulum smaller and apical spiny patch in the internal sac connected with median spiny patch (Figs. 62-70). With respect to habitus it resembles the nominotypical subspecies because its elytra are relatively short, the pronotum is usually widest behind the middle and the subapical sinuation of elytra is rather weak in some specimens (Figs. 71-72). However, the sutural angle of elytra in the female does not extended backward (Figs. 72-73) as opposed to the dentiform sutural angle in the female of the nominotypical subspecies. Upper surface black, often with colourous metallic tinge.

**Proportions (7♂♂, 6♀♀):**

	WP/LP	LE/WE	LE/LP	WE/WP	WH/WP
♂♂	1.50-1.58	1.30-1.34	2.35-2.57	1.16-1.20	0.61-0.66
♀♀	1.45-1.57	1.30-1.34	2.30-2.54	1.20-1.26	0.64-0.66

**Body length** 7.3-9.6 mm

**Distribution:** Mountains of western Antalya (Fig. 74, d).

**Etymology:** The name is derived from Lycia, the ancient Greek state in the south-west of Asia Minor.

**Remarks:** Some of the distinctive features of *H. anatolicus lycius* ssp.n., *H. a. caricus* nom.n. and *H. a. lycius* ssp.n. (deep preapical sinuation of elytra, shape of pronotum with maximum width at the middle, rather long terminal lamella of median lobe) are also characteristic of *H. triseriatus* FLEISCHER 1897, the only endemic species of the *H. autumnalis* group occurring on the Balkans. However, *H. triseriatus* seems to be a distinct allopatric species because it has unicolorous yellow antennae, still deeper preapical sinuation of elytra with an obtuse denticle at its base and different structure of median lobe with much more strongly inclined apical capitulum and different armature of internal sac.

### Zusammenfassung

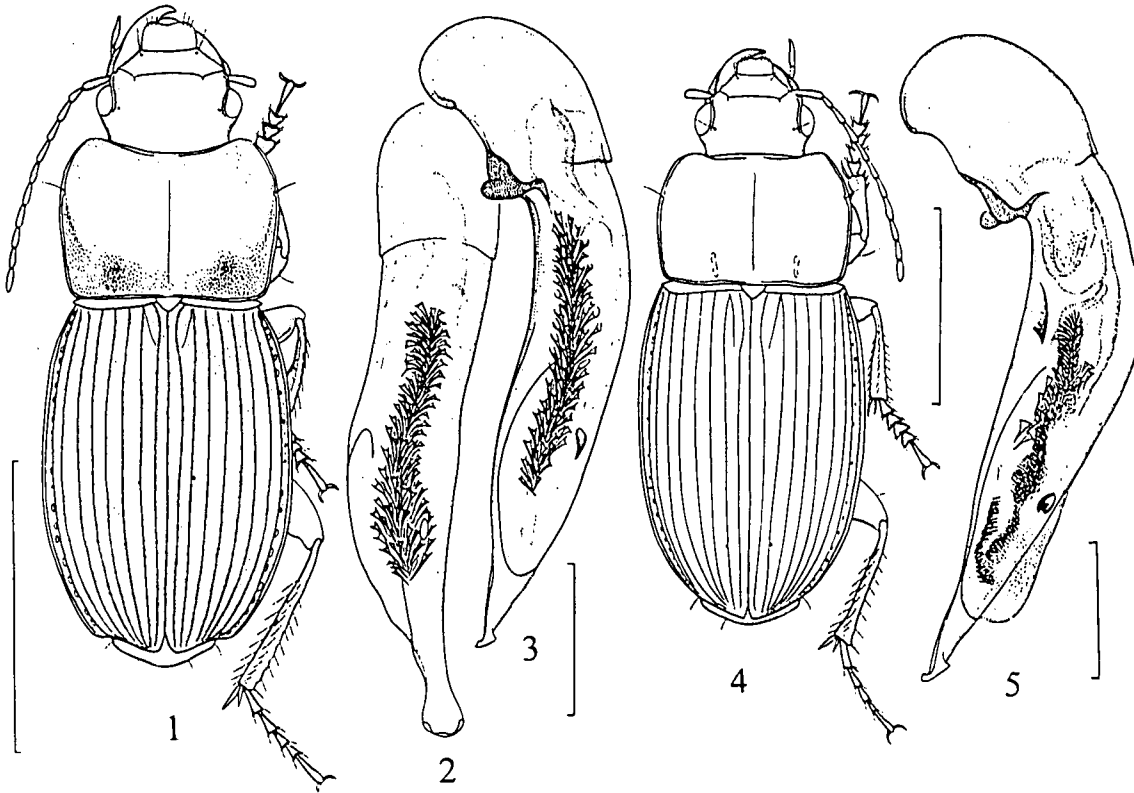
Fünf neue Arten der Gattung *Harpalus* werden aus China beschrieben: *H. lama* sp.n. und *H. ascetes* sp.n. aus Tibet, *H. puetzi* sp.n. aus Shaanxi, sowie *H. kaznakovi* sp.n. und *H. beneshi* sp.n. aus Sichuan. *H. anatolicus* TSCHITSCHÉRINE 1898, verbreitet im westlichen Teil von Anatolien, bildet vier Subspezies, von denen hier zwei beschrieben werden: *H. anatolicus lydius* ssp.n. und *H. anatolicus lycius* ssp.n. Der Name *H. anatolicus caricus* nom.n. wird vorgeschlagen für *H. anatolicus nigripes* J. SAHLBERG 1913 (nec STURM 1818, nec DALLA TORRE 1877), ein Lectotypus wird designiert. Ein Schlüssel für alle vier Subspezies von *H. anatolicus* wird präsentiert.

### References

- KATAEV B.M. (1990): Carabids of the *Harpalus vittatus* species group (Coleoptera, Carabidae). — Entomol. obozr. 69/2: 391-400 [in Russian].
- KATAEV B.M. (1993): New and little-known species of ground beetles of the genus *Harpalus* from Palaearctic Asia (Coleoptera: Carabidae). — Zoosyst. Rossica 2: 121-136.
- MLYNAŘ Z. (1979): Beitrag zur Kenntnis der osteuropäischen und sibirischen *Harpalus*-Arten (Col., Carabidae). — Koleopt. Rdsch. 54: 73-111.
- REITTER E. (1900): Bestimmungs-Tabelle der europäischen Coleopteren. 41. Heft. Enthaltend: Carabidae. Abtheilung: Harpalini und Licinini. — Verh. naturf. Ver. Brünn 38: 33-144.
- SAHLBERG J. (1913): Coleoptera mediterranea orientalia, quae in Aegypto, Palaestina, Syria, Caramania atque in Anatolia occidentali anno 1904 collegerunt John Sahlberg et Unio Saalas. — Helsingfors Ofr. Finska Vet. Soc. Forhandl. 55/19: 1-282.
- TSCHITSCHÉRINE T. (1898): Notes sur divers Harpalini paléarctiques. 1-2. — Ann. Soc. Ent. France 67: 168-188.

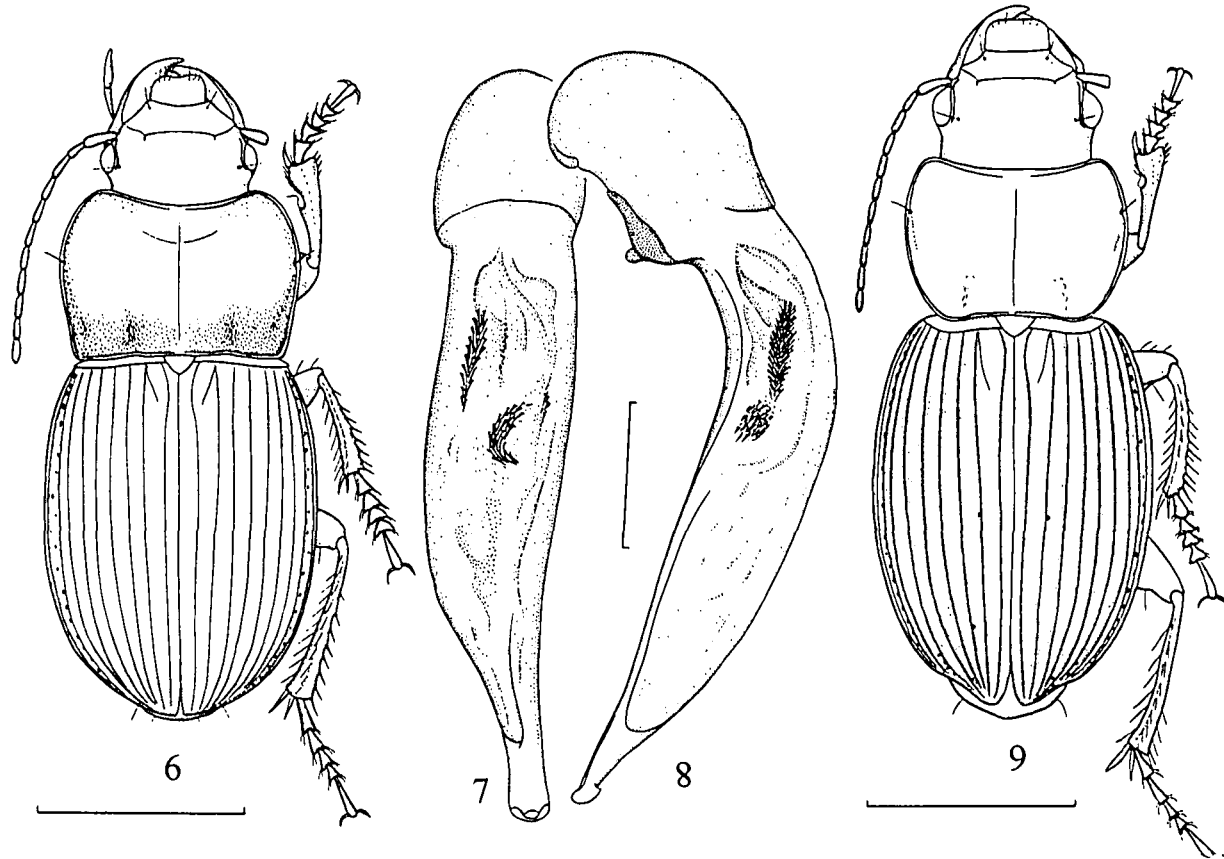
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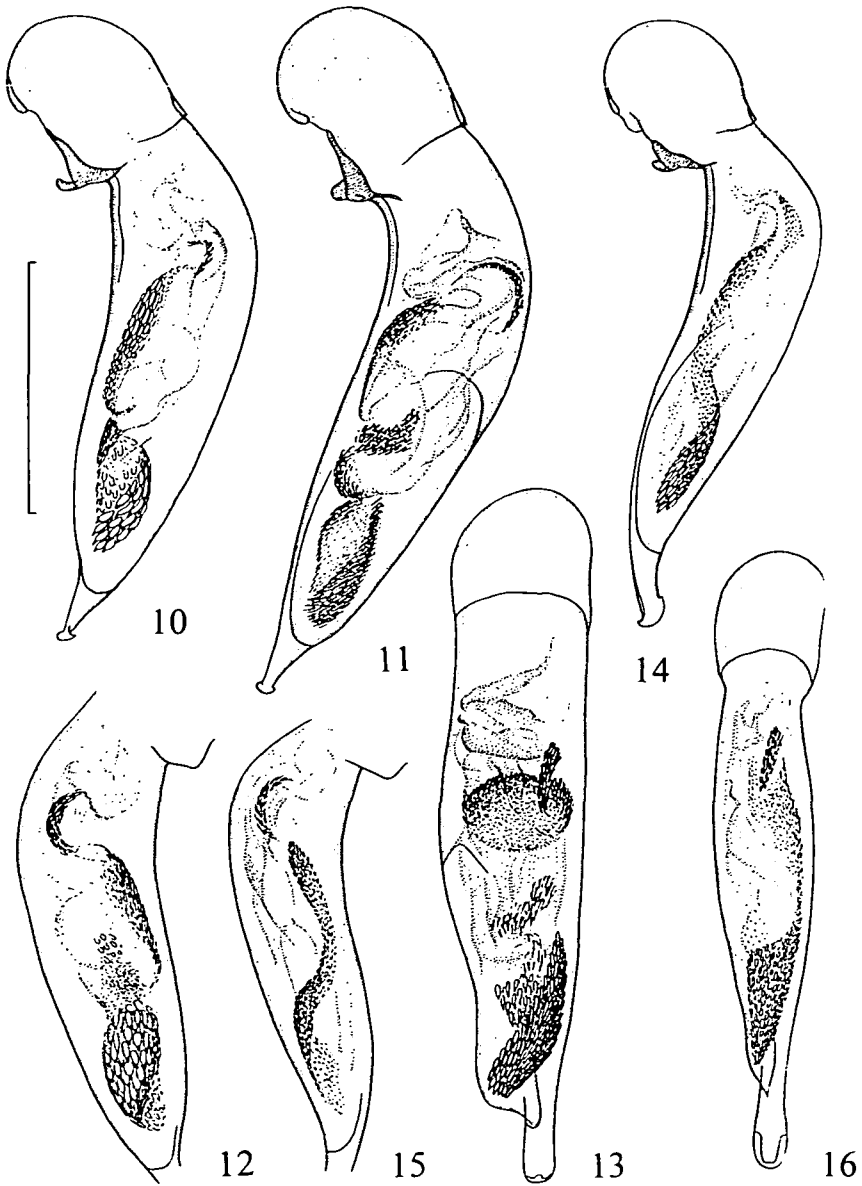


Figs. 1-3: *H. puetzi* sp.n. (HT). 1 - Habitus; 2, 3 - Median lobe, dorsal and lateral aspect; Figs. 4, 5: *H. beneshi* sp.n. (HT). 4 - Habitus; 5 - Median lobe, lateral aspect. Scale bar = 0.5 mm (Fig. 5), 1 mm (Figs. 2, 3), 2.5 mm (Fig. 4), 5 mm (Fig. 1).

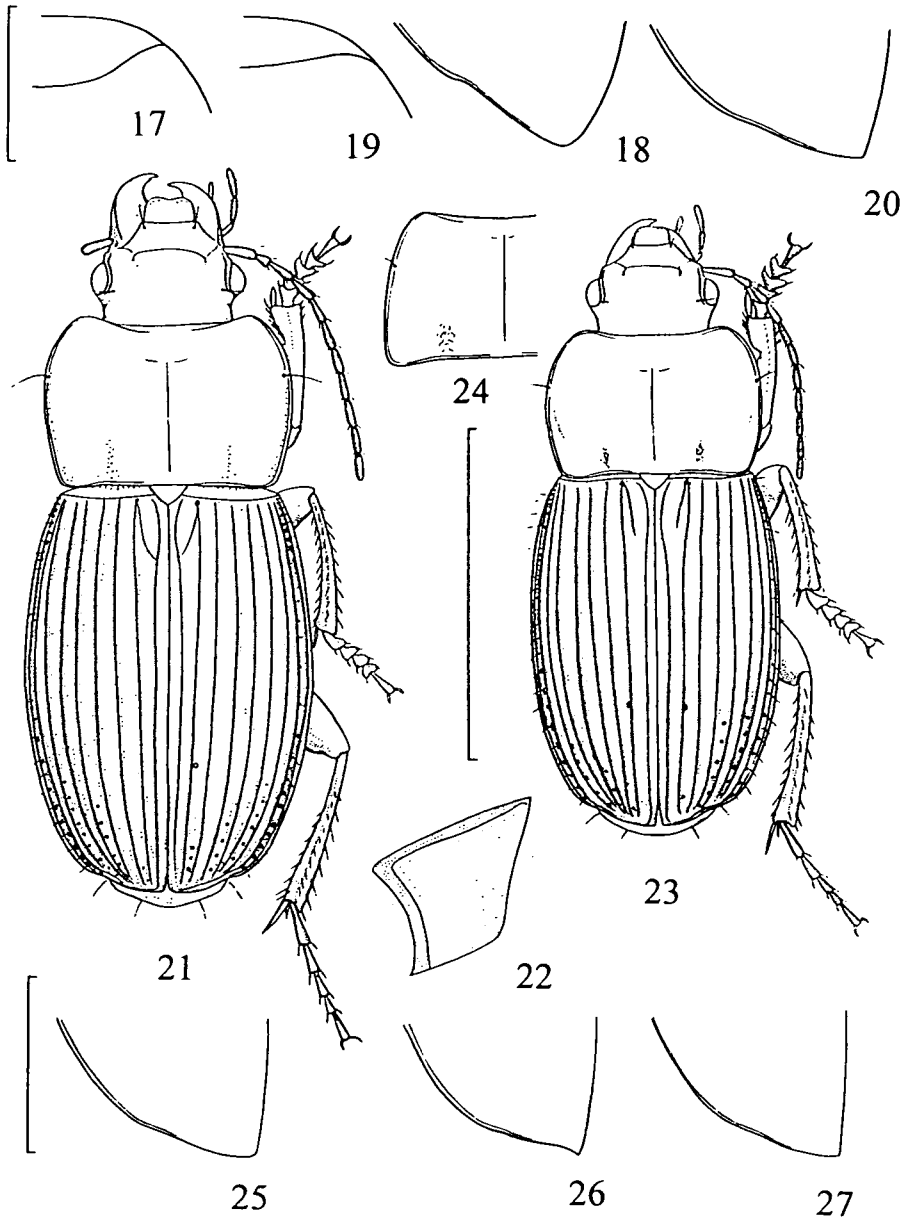




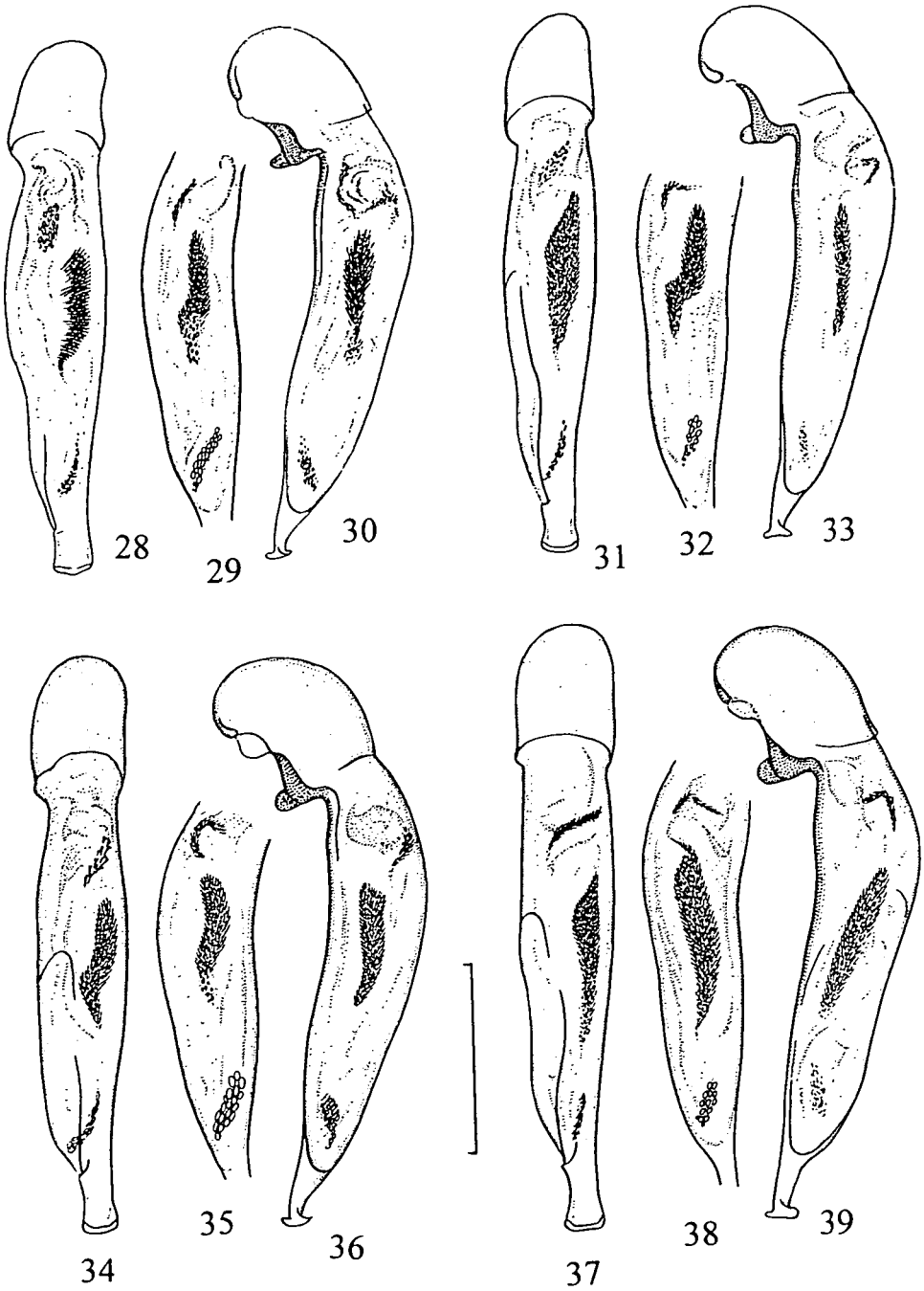
**Figs. 6-8:** *H. kaznakovi* sp.n. (HT). 6 - Habitus. 7, 8 - Median lobe, dorsal and lateral aspect. **Fig. 9:** *H. lama* sp. n., Habitus (HT). Scale bar = 0.5 mm (Figs. 7, 8), 2.5 mm (Figs. 6, 9).



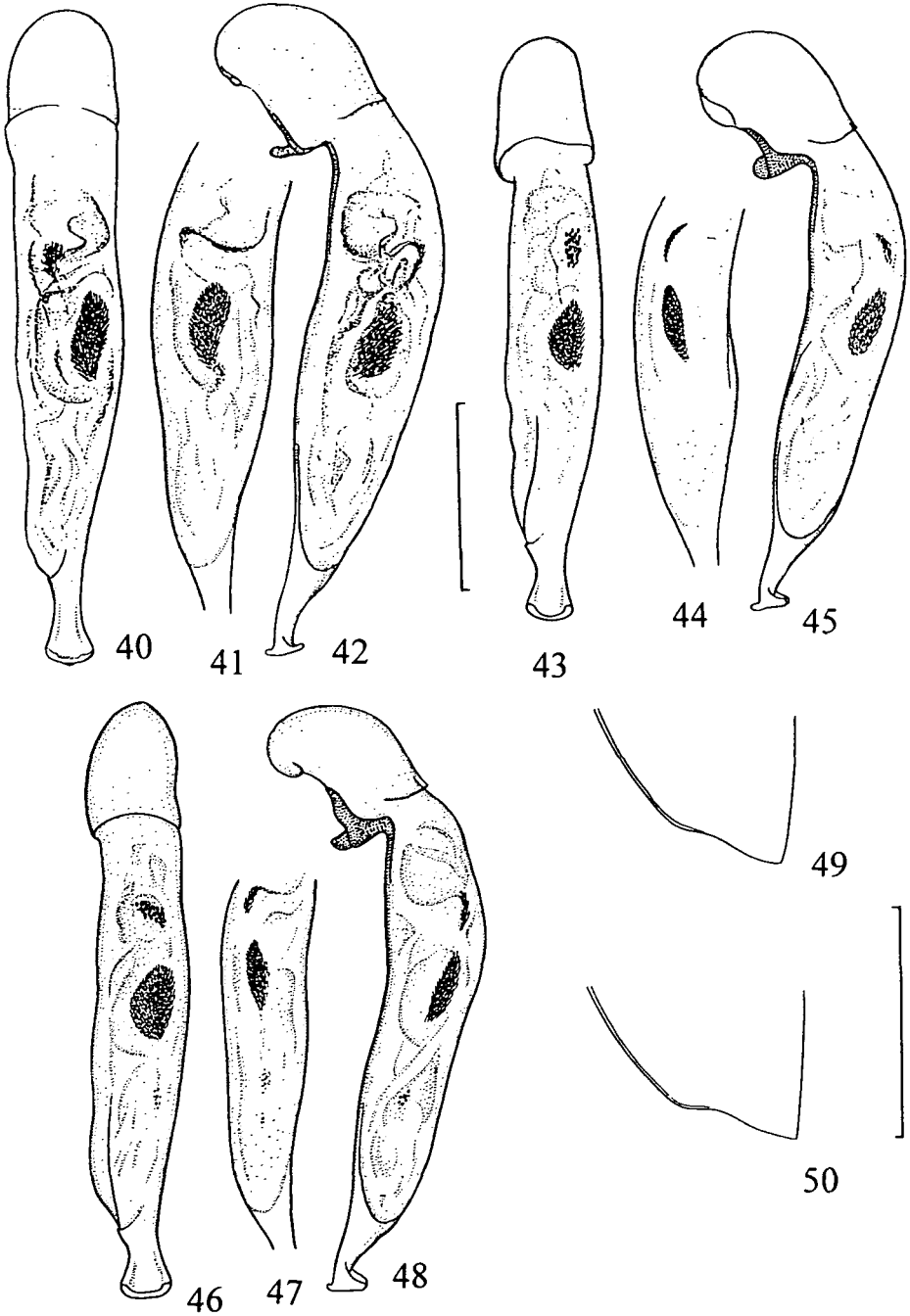
Figs. 10-16: Median lobe, lateral and dorsal aspect. 10-13: *H. lama* sp.n. 10, 12: Basumco. 11, 13: HT. 14-16: *H. ascetes* sp.n. (HT). Scale bar = 1 mm.



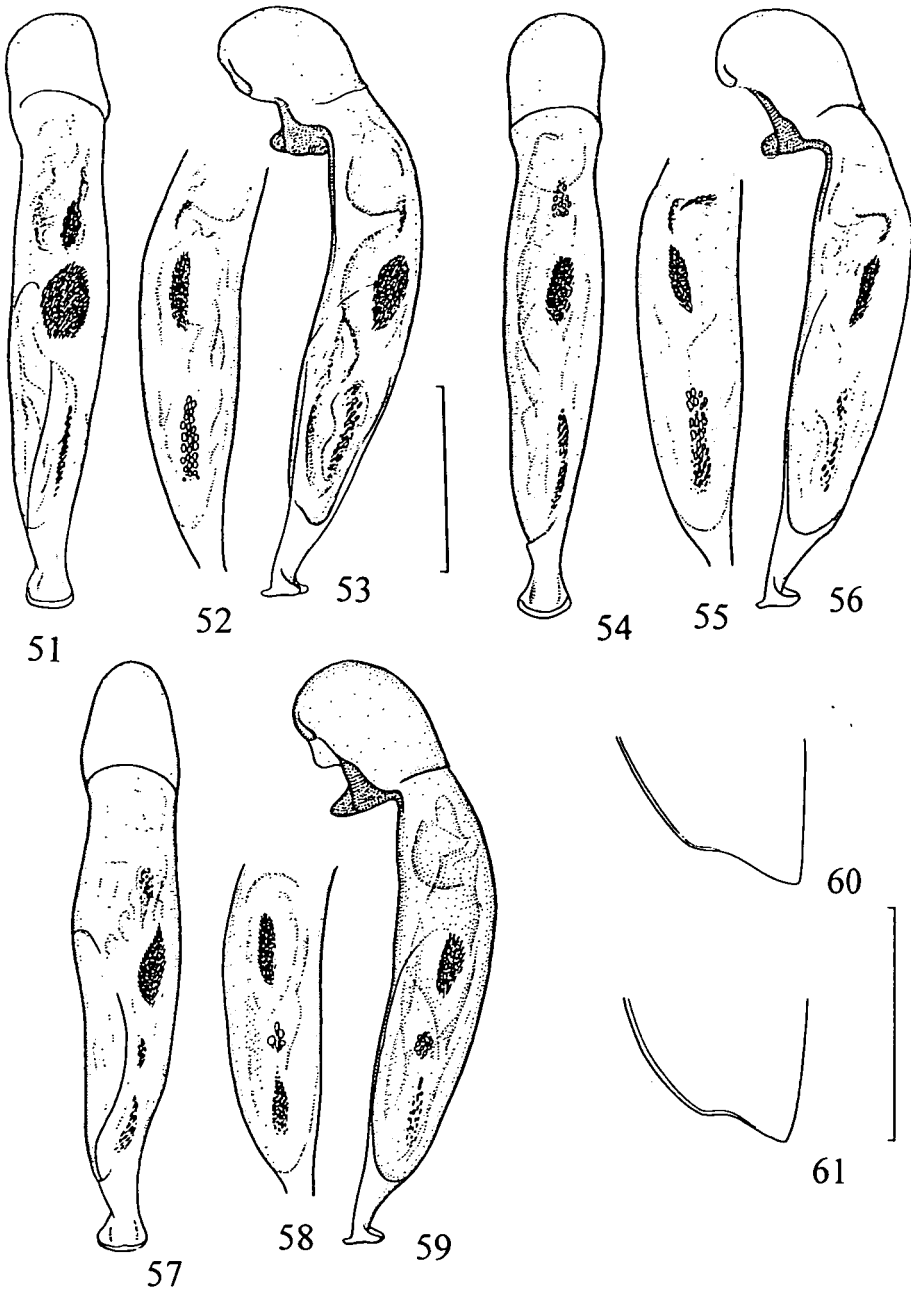
Figs. 17, 18: *H. lama* sp.n. (HT). 17 - Right humer. 18 - Apex of left elytron. Figs. 19, 20: *H. ascetes* sp.n. (HT). 19 - Right humer. 20 - Apex of left elytron. Figs. 21, 22: *H. anatolicus lydius* ssp.n. (HT). 21 - Habitus. 22 - Left metepisternon. Figs. 23-27: *H. anatolicus* ssp. *anatolicus*. 23 - Habitus (Akşehir). 24 - left half of pronotum (Aslanapa). 25-27 - Apex of left elytron. 25 - Male, Akşehir. 26, 27 - Female, Eskişehir. Scale bar = 0.5 mm (Figs. 17, 19), 1 mm (Figs. 18, 20, 22, 25-27), 5 mm (Figs. 21, 23, 24).



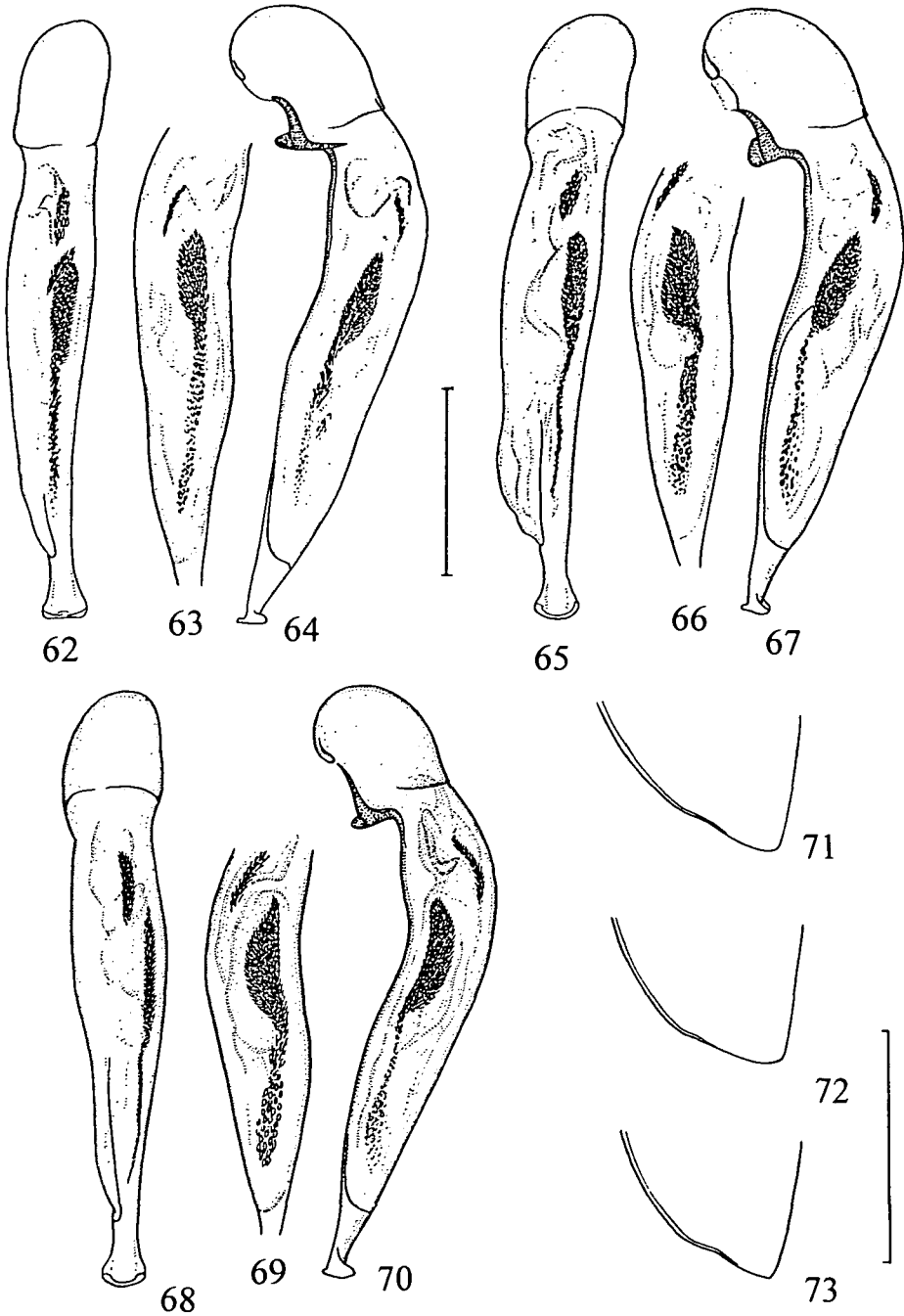
Figs. 28-39: *H. anatolicus* ssp. *anatolicus*, median lobe, dorsal and lateral aspect. 28-30 - Akşehir. 31-33 - Çay. 34-36 - Egirdir-gölü. 37-39 - Hasse-Kilis. Scale bar = 1 mm.



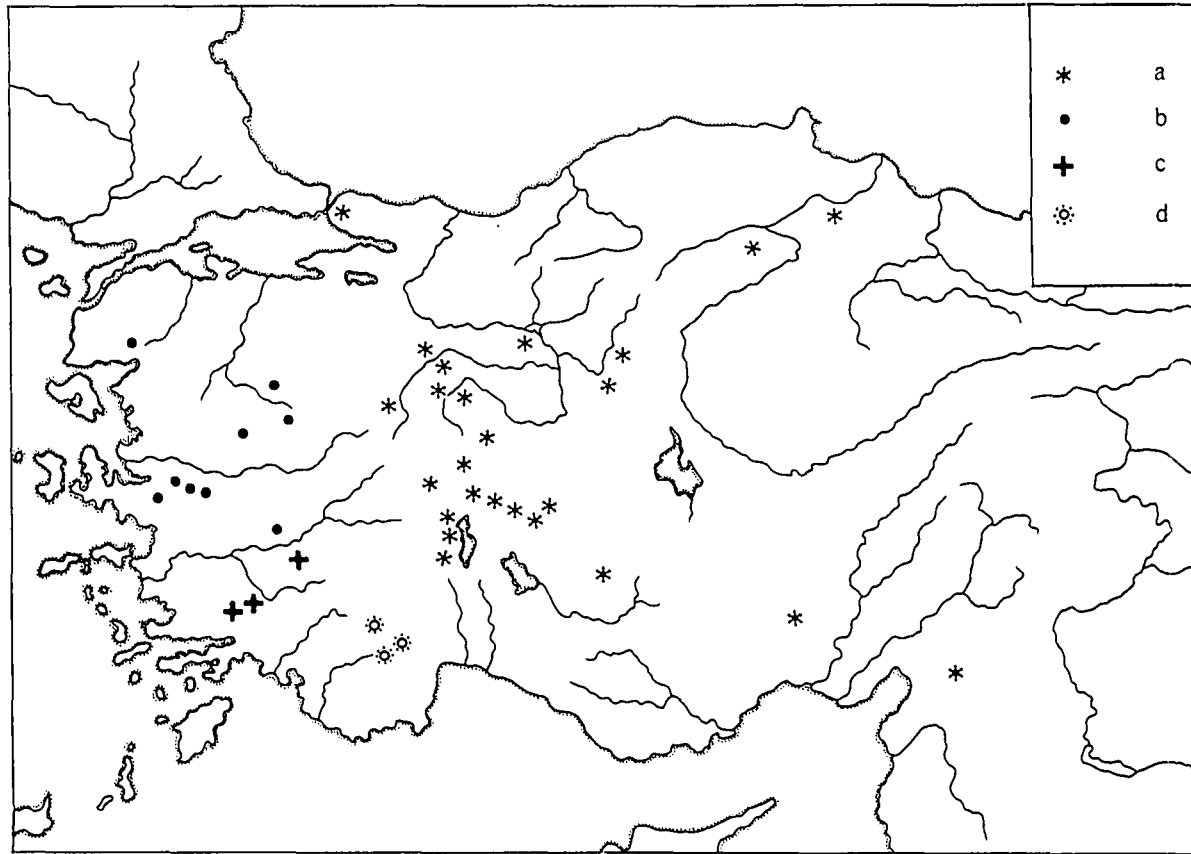
Figs. 40-50: *H. anatolicus lydius* ssp.n. 40-48 - Median lobe, dorsal and lateral aspect. 40-42 - 10 km N Bozdağ (PT). 43-48 - Env. Simav. 49, 50 - Apex of left elytron (10 km E Bozdağ; PT). 49 - Male. 50 - Female. Scale bar = 1 mm (Figs. 40-48), 2.5 mm (Figs. 49, 50).



Figs. 51-61: *H. anatolicus caricus* nom.n. 51-59 - Median lobe, dorsal and lateral aspect. 51-53 - LT of *H. anatolicus nigripes*. 54-56 - 40 km NE Yatağan. 57-59 - Kafaca. 60, 61 - Apex of left elytron. 60 - LT of *H. anatolicus nigripes*. 61 - Female (Kafaca). Scale bar = 1 mm (Figs. 51-59), 2.5 mm (Figs. 60, 61).



Figs. 62-73: *H. anatolicus lycius* ssp.n. 62-70 - Median lobe, dorsal and lateral aspect. 62-64 - Env. Korkuteli. 65-67 - Yesilobe. 68-70 - Tefenni-Korkuteli. 71-73 - Apex of left elytron. 71 - Male (env. Korkuteli). 72 - Female (env. Korkuteli). 73 - Female (Tefenni-Korkuteli). Scale bar = 1 mm (Figs. 62-70), 2.5 mm (Figs. 71-73).



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Fig. 74: *Harpalus anaticus*, distribution. a: *H. anaticus* ssp. *anaticus*. b: *H. anaticus* ssp. *lydius* ssp. n. c: *H. anaticus* ssp. *caricus* nom.n. d: *H. anaticus* ssp. *lycius* ssp.n.



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

Artikel/Article: [New taxa of the genus Harpalus LATR. from China and Turkey \(Coleoptera, Carabidae\). 991-1014](#)