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Zorochros merkli sp. n. (Coleoptera: Elateridae) from Greece

Zorochros merkli sp. n. (Coleoptera: Elateridae) z Řecka

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Abstract. *Zorochros merkli* sp. n. from southern Greece (Peloponnesos) is described, illustrated and compared with *Z. boubersi* Leseigneur, 1970 and *Z. stibicki* Leseigneur, 1970. *Zorochros quadriguttatus* (Laporte de Castelnau, 1840) is recorded from Greece for the first time.

Before the 1990's only three species of the genus *Zorochros* Thomson, 1859 were known from the territory of Greece (Leseigneur 1970, Guglielmi & Platia 1985, Platia 1994): *Z. meridionalis* (Laporte de Castelnau, 1840), *Z. alysidotus* (Kiesenwetter, 1858) and *Z. pumilio* (Kiesenwetter, 1858). Six species of this genus were recorded from Macedonia and Bulgaria: *Z. minimus* (Lacordaire, 1835), *Z. kourili* (Roubal, 1936), *Z. ibericus* (Franz, 1967), *Z. quadriguttatus* (Laporte de Castelnau, 1840), *Z. meridionalis* and *Z. alysidotus* (Tarnawski 1984, Penev & Tarnawski 1987).

The new species of the genus *Zorochros* has been discovered in the southern Greece (Peloponnesos) and is described below.

Zorochros merkli sp. n.

Description. Male (Fig. 1)**:** Body length 2.9 mm, width 1.1 mm. Body greatly convex, robust. Integument shiny, colour black. First, second and third antennomeres, mandibles, maxillary palpi, legs, prosternal process and four elytral spots rusty-yellow. Pubescence of dorsal surface long, thin, silver-yellow; ventral surface with distinctly shorter, yellowish pubescence.

Head rugose; punctures dense and small. Eyes moderately large; nasal space between antennae complete though narrowed in the middle.

Antennae almost reaching hind angles of pronotum. Basal antennomere robust, convex, distinctly longer than the second one; second and third antennomeres almost equal in size, cylindrical; fourth to tenth antennomeres subequal, subtly serrate; last antennomere rhombic, slightly longer than the preceding one.

Pronotum (Fig. 1) as wide as long, subspherical, widest in anterior 0.5. Pronotum convex, discally somewhat flattened, strongly declivious before base and in anterior angles; base moderately flat. Anterior margin weakly convex, evenly arched. Lateral margin almost straight in anterior 0.3, then evenly arched; weakly emarginate in posterior 0.3. Posterior angles marked, stout, acute, distinctly divergent. Lateral carina reaching from hind angles to anterior 0.25 of pronotum. Disc evenly convex to arched in the middle. Surface of the disc rugose anteriorly and smooth posteri-

orly, adorned with granules, granulate area forming approximately a triangle with edges in lateral 0.5 of anterior margin and in the middle of pronotum. Punctation consisting of two types of punctures: coarse ones in anterior 0.5 and smaller ones in anterior 0.8. Posterior 0.2 impunctate. Propleuron simple, with minute, sparse punctures. Prosternum broad, widest in the middle; anterior lobe covering mouthparts, scarcely narrower than maximum width of prosternum, anterior margin somewhat truncate; prosternal suture typical for *Zorochros* (Stibick 1971). Prosternum moderately densely and roughly punctate, anterior lobe granulate. Prosternal process straight, narrow, elongate.

Scutellum as wide as long, oval-triangulate; punctures minute, sparse.

Mesocoxal cavity surrounded by mesosternum anteriorly and metasternum posteriorly.

Elytra (Fig. 1) short, oval (ratio of length to width = 1.7 : 1.0), slightly narrower than pronotum, widest in the basal part. Punctures minute, sparse. Only striae 1-6 marked, smooth, reaching posterior 0.3 of elytra.

Abdomen. Sternites densely minutely punctate. Third sternite with a small pubescent spot in the middle.

Legs (Fig. 2) not modified except for anterior pair, the latter with dilated femora and tibiae. Protibiae sinuous, apex strongly curved mesad, strongly widened mesally between anterior 0.3 and 0.7; mesal margin with a comb-like row of stout, scale-like setae. Tarsomeres simple, decreasing in length from tarsomere 1 to 4. Claws simple.

Male genitalia (Fig. 3) typical for the genus.

Female: Body lenght 2.7-3.0 mm, width 0.9-1.1 mm (allotype 2.7 x 0.9 mm). Colour, punctation and pubescence of the body similar to male, except for pubescence of abdominal ventrites being even, without the small pubescent spot at the middle of the third ventrite. Legs normal including the anterior pair. Anterior tibiae narrow, weakly curved inside.

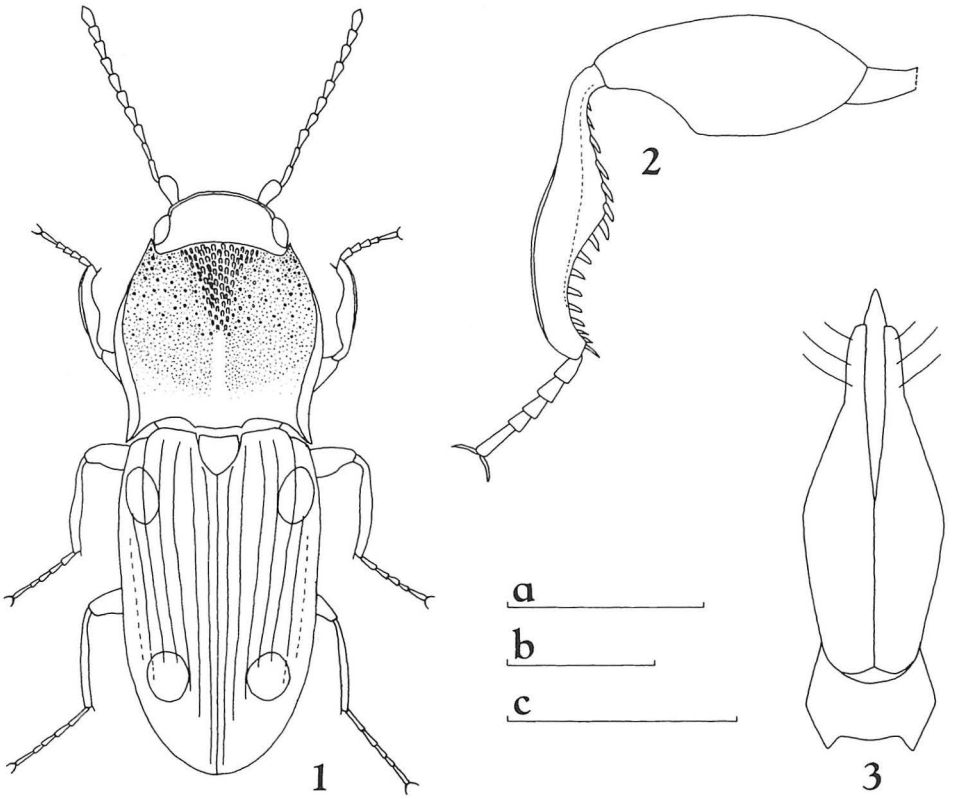
Type material. Holotype ♂: Greece mer., Peloponnese, Megalopoli env., Lefktro (550 m), Alfiós river, 9.-11.iv. 1995, Josef Mertlik lgt. Allotype ♀: same data. Paratypes (5 ♂♂, 1 ♀): 1 ♂, same data as in holotype; 2 ♂♂, same data except 10.iv.1995, T. Kopecký lgt.; 1 ♂, 1 ♀, same data except 29.vi.-2.vii.1996, J. Mertlik lgt.; Greece mer., Peloponnese, Lakonia, Sparti env., 2.-3.iv.1986, 1 ♂, L. Schmidt leg.; Greece mer., Peloponnese, 14 km NE from Kalamata, Nedon river, 24.iv.1996, 1 ♂, 1 ♀, W. Marggi leg. Holotype and allotype deposited in the collection of Josef Mertlik, Hradec Králové. Paratypes deposited in coll. Tomáš Kopecký (Hradec Králové), coll. Claus Wurst (Karlsruhe), and coll. Josef Mertlik.

Name derivation. Dedicated to Dr. Ottó Merkl (Budapest, Hungary) for his continuous help in my studies of Elateridae.

Differential diagnosis. Leseigneur (1970) divides the European species into 3 groups. Group 1 consists of species without pronotal carina in posterior angles; group 2 comprises species with pronotal carina developed, body somewhat flattened, depressed, pronotum extensively covered with granules; group 3 includes species with pronotal carina developed, pronotum and elytra normally convex, pronotum with granules concentrated anteriorly and towards the middle.

Zorochros merkli sp. n. is closely related to group 3. It differs from all so far known European species by the shape of male fore legs and in the conspicuously setose mesal margin of protibiae. *Z. merkli* sp. n. is related to *Z. boubersi* Leseigneur, 1970 by the greatly convex and robust body and by the dilated male profemora; it differs from the latter primarily by the dilated male protibiae and by the elytra being slightly narrower than pronotum. *Z. merkli* sp. n. also resembles

Z. stibicki Leseigneur, 1970 by the shape of male protibiae; the latter species differs by the more evenly arched, apically nearly straight protibiae, by the lack of a conspicuous, comb-like row of stout setae on the mesal margin of the male protibiae and by the non-dilated male profemora.



Figs 1-3. *Zorochros merkli* sp. n., holotype, male: 1 - habitus, dorsal view; 2 - fore leg, dorsal view; 3 - aedeagus, ventral view. Scale: 1 mm for Fig. 1 (a), 0.5 mm for Fig. 2 (b) and Fig. 3 (c).
Obr. 1-3. *Zorochros merkli* sp. n., holotypus, samec: 1 - habitus, dorsální pohled; 2 - přední noha, dorsální pohled; 3 - aedeagus, ventrální pohled. Měřítka: 1 mm pro obr. 1 (a), 0,5 mm pro obr. 2 (b) a obr. 3 (c).

Collection circumstances. The species has been found under gravel at the undisturbed gravel banks of Alfiós river, together with the following elaterid species: *Zorochros meridionalis* (Laporte de Castelnau, 1840), *Z. alysidotus* (Kiesenwetter, 1858), *Z. pumilio* (Kiesenwetter, 1858), *Negastrius sabulicola* (Boheman, 1851) and *Agrypnus crennicollis* (Ménétriés, 1832).

Note on the occurrence of *Zorochros quadriguttatus* (Laporte de Castelnau, 1840)

In addition to the four species mentioned above, *Z. quadriguttatus* was now also found in Greece: 1 ♀, Chalkidiki, Ormilia env., 11.vi.1995; 1 ♀, Chalkidiki, Metamorfossi, 4.vi.1995, both specimens W. Apfel leg., J. Mertlik det., coll. C. Wurst; 3 ♂♂, 2 ♀♀, Macedonia occ., Kozáni, Neápoli env. - river, 600 m, 8.vi.1995, R. Fencl & Z. Hosnedl leg., coll. J. Mertlik; 3 ♀♀, Lákmos

Mts., 1000-1300 m, Antohóri vill., 20.v.1997, P. Bulirsch leg., coll. J. Mertlik; 2 ♀♀, Korítiani vill. env., Thiamis river, 19.v.1997, P. Bulirsch leg., coll. J. Mertlik.

REFERENCES

GUGLIELMI A. & PLATIA G. 1989: Contributo alla conoscenza degli Elateridi di Grecia e Turchia (Coleoptera). *Fragm. Entomol.*, 18: 169-224.

LESEIGNEUR L. 1970: Revision des Zorochrus Europeens (Col. Elateridae). *Bull. Soc. Linn. Lyon*, 39: 19-43.

PENEV L. & TARNAWSKI D. 1987: Die Schnellkäfer (Coleoptera, Elateridae) Bulgariens (Nachtrag). *Pol. Pismo Entomol.*, 57: 421-440.

PLATIA G. 1994: *Fauna d'Italia, Coleoptera Elateridae.* Edizioni Calderini, Bologna, 429 pp.

STIBICK J. N. L. 1971: The generic classification of the Negastriinae (Coleoptera: Elateridae). *Pacific Insects*, 13: 371-390.

TARNAWSKI D. 1984: Die Schnellkäfer Bulgariens (Coleoptera, Elateridae). *Pol. Pismo Entomol.*, 54: 235-281.

SOUHRN

Do devadesátých let tohoto století byli z Řecka známi pouze tři zástupci rodu *Zorochros* Thomson, 1859 (Leseigneur 1970, Guglielmi & Platia 1985, Platia 1994): *Z. alysidotus* (Kiesenwetter, 1858), *Z. pumilio* (Kiesenwetter, 1858) a *Z. meridionalis* (Laporte de Castelnau, 1840). Z Makedonie a Bulharska je uváděn výskyt šesti druhů tohoto rodu: *Z. minimus* (Lacordaire, 1835), *Z. ibericus* (Franz, 1967), *Z. kourili* (Roubal, 1936), *Z. qudriguttatus* (Laporte de Castelnau, 1840), *Z. alysidotus* a *Z. meridionalis* (Tarnawski 1984, Penev & Tarnawski 1987). Nyní byl v Řecku na poloostrově Peloponés objeven nový druh rodu *Zorochros* a je popsán v této práci.

Zorochros merkli sp. n. se od všech známých evropských zástupců tohoto rodu odlišuje tvarem předních nohou u samců a řadou velkých a širokých brv podél celé délky vnitřního okraje jejich holení. Je podrobněji porovnán s příbuznými druhy *Z. boubersi* Leseigneur, 1970 a *Z. stibicki* Leseigneur, 1970.

Nový druh byl nalezen poblíž Megalopoli na zachovalých štěrkových náplavech řeky Alfiósu, kde byl sbírán společně s kovaříky: *Zorochros meridionalis*, *Z. pumilio*, *Z. alysidotus*, *Negastrius sabulicola* (Boheman, 1851) a *Agrypnus crennicollis* (Ménétriés, 1832), a v okolí Kalamaty a Sparti. Je pojmenován na počest Dr. O. Merkla z Budapešti.

Zároveň jsou v práci publikovány první nálezy druhu *Zorochros quadriguttatus* z Řecka.