

***Pachycarus (Mysteropterus) cyaneus* (DEJEAN 1825) – species of ground beetles (Coleoptera, Carabidae) new for Bulgaria's fauna**

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ABSTRACT The paper presents faunistic information on the species of ground beetles new for Bulgarian fauna, namely *Pachycarus cyaneus* (DEJEAN 1825) (Coleoptera, Carabidae). The species was reported from Sandanski-Petrich valley on Kozhuh (near Petrich), 200 m a. s. l.

KEY WORDS: *Pachycarus cyaneus*, Coleoptera, Carabidae, Bulgaria, faunistic.

The *Pachycarus* genus in Europe consists of 5 species, which live in characteristically dry habitats. Others occur only in Greece on Crete Island, also in Macedonia and Bulgaria (TRAUTNER & GEIGENMUELLER 1987, GUEORGUIEV & GUEORGUIEV 1997, GUEORGUIEV & all. 1997). The subgenus *Mysteropterus*, including European species, is regarded as a Balkan endemic one (GUEORGUIEV & all. 1997).

This group of ground beetles is characterised by living in self-dug burrows under stones, which causes problems when it comes to studying them.

Only *Pachycarus atrocoeruleus* (WALTL 1838) are reported from the fauna of Bulgaria; they occur on Mt. Kozhuh in Sandanski-Petrich valley (GUEORGUIEV & GUEORGUIEV 1995, GUEORGUIEV & all. 1997). Only one specimen was collected in May at 250 m a. s. l.

During the exploration of Bulgarian fauna in 2003 *Pachycarus cyaneus* (DEJ.) the following were listed for the first time in the country:

- Rupite (protected area), Mt. Kozhuh near Petrich 41°24' N, 23°13' E ; 6-7 VII 2003, 1 ex; under a stone, 200 m a. s. l. – leg. M.BUNALSKI, det. & coll. P. SIENKIEWICZ

Hitherto *P. cyaneus* has been known only from Crete in Greece (TRAUTNER & GEIGENMUELLER 1987). The new locality of this species leads to a supposition that the zoogeographical range of *P. cyaneus* could be wider and include mountainous habitats of the Mediterranean zone. The habitat in which *P. cyaneus* was found in Bulgaria is typical of *Pachycarus*. It was a dry slope of the old volcano Kozhuh sparsely covered with plants (Figs 1a,b).



A



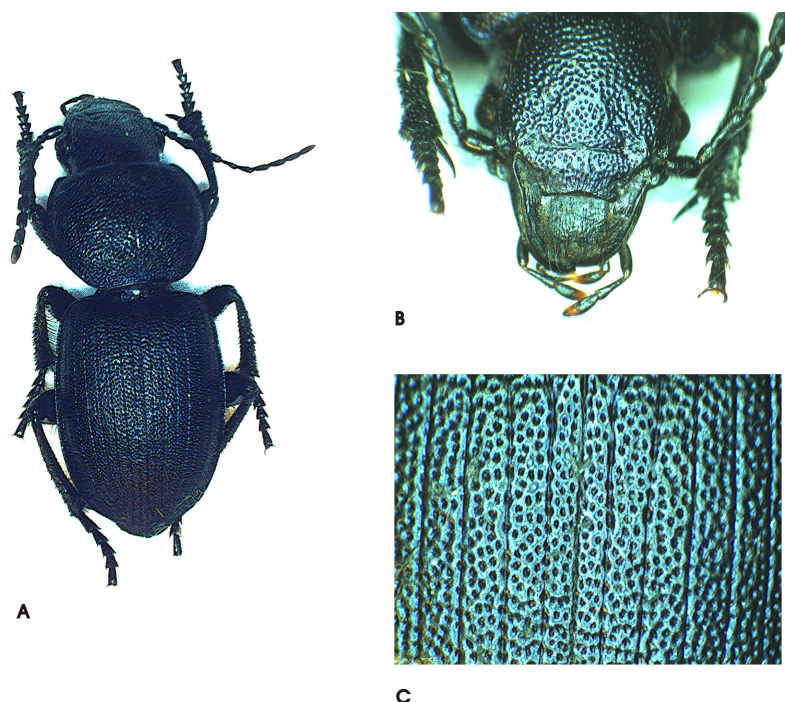
B

Figs 1a-b. A – General view on Kozhuh where *Pachycarus cyaneus* (DEJ.) was collected (photo: M. BUNALSKI); B – Slope of Kozhuh old volcano inhabited by *Pachycarus cyaneus* (DEJ.) (photo: M. BUNALSKI).

In terms of morphology *P. cyaneus* is similar to *P. atrocoeruleus*. The main differences include the pronotum, clypeus and elytral intervals (TRAUTNER & GEIGENMUELLER 1987). The pronotum in *P. cyaneus* is more strongly curved towards the front angles (Fig. 2a), the clypeus anterior margin is incurved (Fig. 2b) and the punctuation of elytral intervals is considerably coarser than in *P. atrocoeruleus* (Fig. 2c).

In terms of ground beetles diversity Bulgaria is very exceptional. The “Catalogue of the ground-beetles of Bulgaria” (GUEORGUIEV & GUEORGUIEV 1995) lists 754 species and subspecies of those insects. The richness of the local fauna results from its specific ge-

ographical location (mountains covering the majority of the country, the sea coast etc.). It is necessary to provide more information on new ground beetles of the region.



Figs 2a-c. A – *Pachycarus cyaneus* (DEJEAN 1825) collected in Bulgaria (photo: P. SIENKIEWICZ); B – Clypeus anterior margin of *Pachycarus cyaneus* (DEJ.) (photo: P. SIENKIEWICZ); C – Punctuation of elytral intervals of *Pachycarus cyaneus* (DEJ.) (photo: P. SIENKIEWICZ).

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