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Uvarus occultus (SHARP) comb.n., the first Palaearctic member of the genus *Uvarus* GUIGNOT (Coleoptera: Dytiscidae)

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Abstract

Bidessus occultus SHARP, 1882 (Coleoptera: Dytiscidae), described from a single specimen from western Arabia, is redescribed, illustrated and transferred to the genus *Uvarus* GUIGNOT, 1939. It is very similar to the widely distributed Subsaharan *U. peringueyi* (RÉGIMBART, 1895). *Uvarus occultus* comb.n. is the first member of the genus reaching the southern margin of the Palaearctic Region.

Key words: Coleoptera, Dytiscidae, *Bidessus*, *Uvarus*, taxonomy, Arabia, Palaearctic Region.

Introduction

About 1000 species of Dytiscidae occur in the Palaearctic zoogeographical region (cf. NILSSON 2003). Only a few of these are known only from old original descriptions. The enigmatic *Bidessus occultus* SHARP, 1882, described from a single specimen collected by C. Millingen in the Hejaz region (Saudi Arabia) in 1873, is one of these exceptions.

The type specimen of *Bidessus occultus* is preserved in Sharp's collection, deposited in the Natural History Museum, London, UK (BMNH). Most probably the only specialist to have studied it since the original description was the British entomologist Jack Balfour-Browne. However, probably because the specimen was not labelled as a type, Balfour-Browne did not recognize its status, and never mentioned it in any of his publications (cf. BALFOUR-BROWNE 1951). The only literature records of *B. occultus* are translations of the original description, or listings in catalogues: BRANCUCCI (1985) mentioned this species in the appendix of his latest contribution to the Fauna of Saudi Arabia. As he considered the occurrence of "true" *Bidessus* SHARP in Arabia as quite improbable, he regarded it, with hesitation, as a member of the genus *Hydroglyphus* MOTSCHULSKY, 1853. Following that opinion, BISTRÖM (1988a) in his generic review of Bidessini also placed this species in *Hydroglyphus*, noting that the generic assignment of the species was unclear. However, neither author had studied the type.

Recently, we have been able to study the holotype of *Bidessus occultus* (Fig. 1), which enabled us to clarify the generic status of this species.

Uvarus occultus (SHARP, 1882) comb.n.

Bidessus occultus SHARP, 1882: 363 (original description); MARSEUL 1882: 51 (description); BRANDEN 1885: 33 (catalogue); ZIMMERMANN 1930: 93 (description); NILSSON 2001: 116 (catalogue); NILSSON 2003: 55 (catalogue).
Bidessus (*Bidessus*) *occultus*: ZIMMERMANN 1920: 55 (catalogue).
Hydroglyphus ? *occultus*: BRANCUCCI 1985: 241 (catalogue).
Hydroglyphus occultus (generic association unclear): BISTRÖM 1988a: 14 (catalogue).

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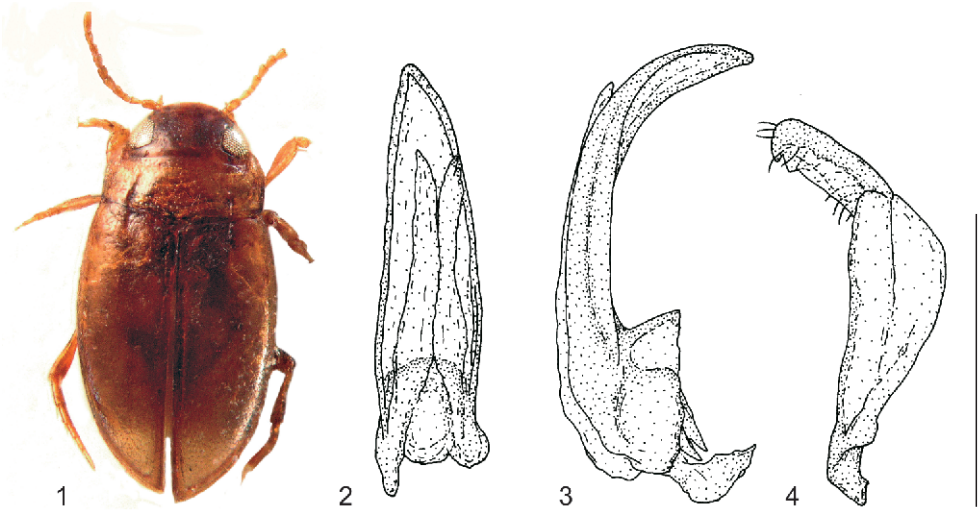

Figs. 1–4: *Uvarus occultus*: 1) habitus, holotype; 2) median lobe of aedeagus in ventral view, 3) median lobe in lateral view, 4) paramere. Scale bar (Figs. 2–4) = 0.2 mm.

TYPE LOCALITY: Arabia, Al Hijāz.

TYPE MATERIAL: **Holotype**, by monotypy, ♂ (BMNH): "Hedjaz. Millingen" [handwritten], "II 28 73" [handwritten, partly illegible; presumably the date of collecting: 28.II.1873], "Sharp Coll / 1905-313" [printed], "Determined / from / description. / J.B-B" [Balfour-Browne's handwriting], "Bidessus / occultus, Shp. / J. Balfour-Browne det." [handwritten, and printed], "HOLOTYPE ♂ / BIDESSUS / occultus Sharp, 1882 / J. Hájek design. 2007" [red label, printed], "UVARUS / occultus (Sharp, 1882) / Jiří Hájek det. 2007" [printed].

Although the specimen was not labelled as such, we consider it to be the holotype for the following reasons: 1) It is the only known specimen of this species; 2) the type locality and the description correspond exactly with the specimen; 3) the specimen came from Sharp's collection; 4) not all Dytiscidae types in Sharp's collection are properly indicated as such, and the majority of them are not prepared in Sharp's characteristic style (M.V.L. Barclay, pers. comm., 2007).

DIAGNOSIS: See also descriptions of *Uvarus andreinii* (RÉGIMBART, 1904) and *U. peringueyi* (RÉGIMBART, 1895) in BISTRÖM (1988b).

Habitus (Fig. 1) oval. Body colouration ferrugineous to pale brownish, dorsally with vague darker areas: head and elytra with dark ferrugineous areas, with diffuse delimitation. Shiny, not microsculptured.

Measurements: Body length: 1.78 mm, width 0.88 mm.

Male genitalia: Figs. 2–4.

AFFINITY: *Uvarus occultus* undoubtedly belongs to a subgroup of species occurring in Africa south of the Sahara. It strongly resembles *U. andreinii* (verified records from Ethiopia) and *U. peringueyi* (widely distributed in eastern and southeastern Africa). It differs from *U. andreinii* in having a shiny, not reticulated pronotum (*U. andreinii* has a sub-matt pronotum with clearly discernible reticulation). The head in *U. occultus* is also shiny, while it is reticulated in *U. andreinii*. Minor differences can also be detected in the shape of the penis, which is slightly more curved (in lateral aspect) in *U. andreinii*.

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We cannot present any definite morphological character for *U. occultus* to be used in separation from *U. peringueyi*. Possibly, the shape of the penis (basally straighter in *U. occultus*) and the dorsal colour pattern (diffuse in *U. occultus* while often clearly discernible in *U. peringueyi*) could be such. With only one specimen of *U. occultus* available, we refrain to synonymize *U. peringueyi* and *U. occultus*.

DISTRIBUTION: So far known only from Hejaz [Al Hijāz] region in north-western Saudi Arabia.

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