

A new species of *Cyphon* PAYKULL from the Anti-Atlas (SW Morocco) (Coleoptera: Scirtidae)

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Abstract

Cyphon lithophilus sp.n. (Coleoptera: Scirtidae) is described from the Moroccan Anti-Atlas. The new species seems to be closely related to *C. putoni* BRISOUT, 1863, from which it can be separated by its larger size and the structure of the male genitalia. A lectotype is designated for *Cyphon maroccanus* PIC, 1934. *Cyphon maroccanus* is formally synonymized with *C. sulcicollis* MULSANT & REY, 1865.

Key words: Coleoptera, Scirtidae, *Cyphon*, taxonomy, new species, new synonymy, Anti-Atlas, Morocco.

Introduction

In a survey on the aquatic Coleoptera of the Moroccan Anti-Atlas in July 1997 a single specimen of a new species of *Cyphon* PAYKULL, belonging to the *Cyphon coarctatus* group sensu NYHOLM (1955), was collected. In a subsequent visit in April 2000 several additional specimens of the same species were found, allowing it to be described.

Acknowledgements & acronyms

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CAB Coll. Aguilera, Barcelona
CHB Coll. Hernando, Barcelona
CRB Coll. Ribera, Barcelona
MZB Museu de Zoologia, Barcelona
NHM The Natural History Museum, London
NMW Naturhistorisches Museum, Wien
MNHN Muséum National d'Histoire Naturelle, Paris
hw hand written

Cyphon lithophilus sp.n.

TYPE LOCALITY: Mountain stream in the head of the river Massa, in Assif Oumarhouf, 1500 m a.s.l., 29°47'53"N, 9°05'59"W, western Anti-Atlas, Morocco, North Africa.

TYPE MATERIAL: **Holotype** ♂ (NMW): "MOROCCO 25.iv.2000 / Oued Massa, Assif Oumarhouf / 29° 47' 53"N, 9° 05' 59" W, 1500 m / Aguilera, Hernando, Millán & Ribera leg. (28)". **Paratypes:** 28 exs. (CAB, CHB, CRB, MZB, NHM, NMW), same data as holotype; 1 ♂ (CHB), same data as holotype with date 21.vii.1997; 39 exs. (CAB, CHB, CRB): "MOROCCO 24.iv.2000 / Oued Âit-Baha, Âit Ifene / 29° 50' 25" N, 9° 01' 57" W, 1350 m /

Aguilera, Hernando, Millán & Ribera leg. (29)"; 2 exs. (CHB, CRB): "MOROCCO 24.iv.2000 / Oued Maghous, Amaghous / 29° 43' 38" N, 9° 10' 7" W, 600 m / Aguilera, Hernando, Millán & Ribera leg. (52)".

DESCRIPTION: Total length (head excluded) 2.4 – 2.9 mm, maximum width 1.4 – 1.7 mm. Pale brown, shiny. Body oval, moderately convex; covered with long white recumbent setae. Dorsal surface of head with dense granulated punctures. Labrum emarginate. Eyes prominent. First three antennomeres pale, others darker; antennae reaching approximately proximal third of elytra. Punctuation of pronotum sparse (distance among punctures larger than their diameter), granulose; pronotum subparallel, transverse (twice as wide as long); lateral margins bordered, anterior and posterior margins finely bordered. Elytra wide, elongated, surface with dense and granulose punctuation, resembling small transverse striae. Ventral surface of thorax finely punctate. Punctuation of metasternum very fine and sparse; covered with short scarce recumbent pubescence. Punctuation of abdominal sterna fine and dense; covered with very short and recumbent pubescence. Legs short and robust.

SEXUAL DIMORPHISM: Males with metasternal plaque and medial part of the first two abdominal sternites paler than in females. Anterior part of the penis ("pala") long and membranous (Figs 1, 3); ventral part of the penis ("trigonium") narrow, with truncate apex (nomenclature of the structure follows NYHOLM 2000). Tegmen as in Fig. 5, strongly narrowed at the apex, with sclerotised margins and simple parameres. Female prehensor (Fig. 7) with sclerotised margins, with a group of apical setae and two groups of very characteristic lateral spines.

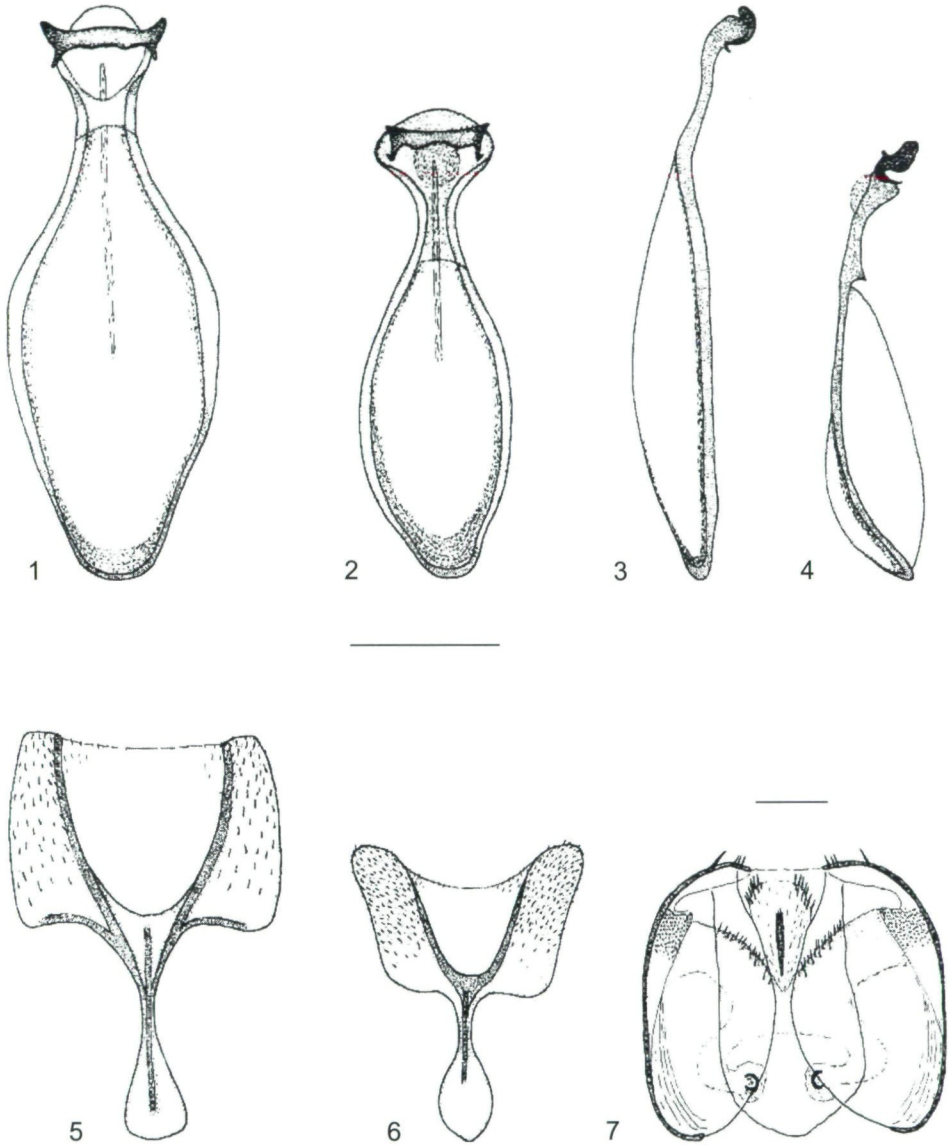
VARIABILITY: Some females with a generally darker coloration; some specimens with the head darker, brown.

DIFFERENTIAL DIAGNOSIS: *Cyphon lithophilus* sp.n. seems to be most closely related to *Cyphon putoni* BRISOUT, 1863, within the *Cyphon coarctatus* species group (sensu NYHOLM 1955) (*C. impressus* KIESENWETTER, 1871; *C. sulcicollis* MULSANT & REY, 1865; *C. derelictum* PEYERIMHOFF, 1931; *C. pandellei* BOURGEOIS, 1884; *C. corsicus* NYHOLM, 1964; and *C. iberus* NYHOLM, 1976). All species share a common general structure of the aedeagus, and have a Mediterranean distribution (NYHOLM 1955).

Among the species of this group, *C. putoni* and *C. derelictum* have the anterior part of the penis ("pala") narrowed at the apex, in particular *C. putoni* (Fig. 2). However, *C. putoni* has a very characteristic spherical structure in the trigonium, absent in *C. lithophilus* sp.n. (Figs 2-4). In *C. derelictum* the narrow part of the pala is considerably shorter than in *C. lithophilus* sp.n.. The structure of the prehensor is also clearly different among the three species (see NYHOLM 1964: Figs. 7, 13).

DISTRIBUTION: So far known from three nearby localities in the western Anti-Atlas, in the head of the river Massa, SW Morocco. The area has proved to harbour an extremely interesting fauna of water beetles, with a high level of endemism. From the same type locality (No. 28) or nearby ones, the following species have been recently described: *Oulimnius jaechi* HERNANDO, RIBERA & AGUILERA, 1998 (Elmidae); *Hydraena antiatlantica* JÄCH, AGUILERA & HERNANDO, 1998, *H. riberae* JÄCH, AGUILERA & HERNANDO, 1998, *Aulacochthebius libertarius* AGUILERA, RIBERA & HERNANDO, 1998, *Limnebius aguilerai* RIBERA & MILLÁN, 1998 (Hydraenidae), and *Stictotarsus maghrebicus* MAZZOLDI & TOLEDO, 1998 (Dytiscidae) (see AGUILERA et al. 1998; HERNANDO et al. 1998; JÄCH et al. 1998; MAZZOLDI & TOLEDO 1998; and RIBERA & MILLÁN 1998).

HABITAT: Adults of this species were found on the gravel shores of residual ponds of mountain streams, or on the surface of nearby rocks. None of them was found on the scarce riparian vegetation of the streams. Many larvae which presumably correspond to this species were collected among the plant debris in residual ponds of the same mountain streams.



Figs 1 - 7: 1, 3) *Cyphon lithophilus* sp.n., penis (lateral and ventral view); 2, 4) *C. putoni*, penis (lateral and ventral view); 5) *C. lithophilus* sp.n., tegmen; 6) *Cyphon putoni*, tegmen; 7) *C. lithophilus* sp.n., female prehensor (traced from photographs). Scale bar: 0.1 mm.

ETYMOLOGY: From the Greek "rock lover", in reference to the habit of the adults to rest in rocks near the water.

Cyphon sulcicollis MULSANT & REY, 1865

The types of *Cyphon maroccanus* PIC, 1934 were investigated, as their taxonomic identity was uncertain. The species is listed as a synonym of *C. impressus* by KOCHER (1956), who quotes "Peyerimhoff in litt." as source, but in KLAUSNITZER (1991) one specimen from the Peyerimhoff collection "als *C. maroccanus* Pic beschriftet" is listed under *C. sulcicollis*. The examination of one of the two syntypes of the species (here designated as lectotype, because the identity of the second syntype could not be established) demonstrated that it is indeed *C. sulcicollis*. As we are not aware of any previous formal synonymisation, we establish it herein:

Cyphon maroccanus Pic, 1934, subjective junior synonym of *C. sulcicollis* MULSANT & REY, 1865, **syn.n.**; **lectotype** ♂ (MNHN) (here designated): "Taza, 10/4/32" [hw]; "MUSEUM PARIS, ex Tournier" [hw]; "COLL. M. PIC"; "TYPE"; [three illegible labels]; "C. [illegible] var., de impressus Kiess." [hw]; "C. maroccanus nov" [hw]; plus lectotype label.

References

- AGUILERA, P., RIBERA, I. & HERNANDO, C. 1998: Notes on the Palearctic species of *Aulacochthebius*, with a description of *A. libertarius* sp. n. from the Moroccan Anti Atlas (Coleoptera: Hydraenidae). - *European Journal of Entomology* 95: 629-637.
- HERNANDO, C., RIBERA, I. & AGUILERA, P. 1998: Description of the adults and larvae of a remarkable new *Oulimnius* Des Gozis from the Anti Atlas (SW Morocco) (Coleoptera: Elmidae). - *Annales de la Société Entomologique de France (Nouvelle Serie)* 34: 253-258.
- JÄCH, M.A., AGUILERA, P. & HERNANDO, C. 1998: New and little known Palearctic species of the genus *Hydraena* (s.l.) V (Coleoptera: Hydraenidae). - *Entomological Problems* 29: 99-105.
- KLAUSNITZER, B. 1991: Über die Helodidae der östlichen und südlichen Mediterraneis (81. Beitrag zur Kenntnis der Helodidae). - *Koleopterologische Rundschau* 61: 159-170.
- KOCHER, L. 1956: Catalogue commenté des coléoptères du Maroc. Fascicule IV. - *Travaux de l'Institut Scientifique Chérifien* 11: 7-19.
- MAZZOLDI, P. & TOLEDO, M. 1998: A new *Stictotarsus* (Insecta: Coleoptera: Dytiscidae) from the Sahara and observations on *Stictotarsus* sensu Nilsson & Angus, 1992. - *Annalen des Naturhistorischen Museums in Wien* 100B: 203-218.
- NYHOLM, T. 1955: Die mitteleuropäischen Arten der Gattung *Cyphon* Payk. - In Horion, A. (ed.): *Faunistik der mitteleuropäischen Käfer*, Bd. IV. - *Entomologische Arbeiten aus dem Museum G. Frey*, pp. 251-267.
- NYHOLM, T. 1964: *Cyphon putoni* Bris. und mit ihm nächstverwandte Arten (Col. Helodidae). *Studien über die Familie Helodidae*. VII. - *Opuscula Entomologica* 29: 41-56.
- NYHOLM, T. 2000: New species, taxonomic notes, and genitalia of New Zealand *Cyphon* (Coleoptera: Scirtidae). - *New Zealand Entomologist* 22: 45-67.
- RIBERA, I. & MILLÁN, A. 1998: *Limnebius aguilerai* sp. n. from south Morocco (Coleoptera: Hydraenidae). - *Entomological Problems* 29: 109-110.

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