# Revision of the Palearctic species of the genus Ochthebius LEACH, 1835 XXXI. Ochthebius scopuli sp.n. from Sardinia (Italy) (Coleoptera: Hydraenidae)

J. KÖHLER, M.A. JÄCH & J.A. DELGADO

#### Abstract

Ochthebius (s.str.) scopuli (Coleoptera: Hydraenidae), a member of the O. metallescens species group, is described from Sardinia (Italy).

Key words: Coleoptera, Hydraenidae, new species, taxonomy, *Ochthebius metallescens* group, aquatic entomology, Italy, Sardinia, Gulf of Orosei, cliffs, freshwater spring.

#### Introduction

The genus *Ochthebius* LEACH, 1835 contains 365 Palearctic species (JÄCH & SKALE 2015), but many species are still awaiting description. Although Europe is considered to be reasonably well explored with respect to this genus, the first author collected a new species during a field trip to the island of Sardinia in October 2015. The new species belongs to the *Ochthebius metallescens* group (revised by JÄCH 1989, 1999) and is described below.

#### Ochthebius (s.str.) scopuli sp.n.

TYPE LOCALITY (Fig. 3): Cala Mariolu, Gulf of Orosei, 40°7'22.7748"N/9°40'36.5664"E, 3 m a.s.l., ca. 18 km S Cala Gonone, ca. 15 km N Santa Maria Navarrese, province of Ogliastra, eastern Sardinia, Italy.

TYPE MATERIAL: **Holotype**  $\sigma$  (Naturhistorisches Museum Wien, Austria): "Sardinien, Cala Mariolu Golfo di Orosei 40.12299° 9.67682° J. Köhler 12.10.2015". **Paratypes**: 1  $\sigma$  and 2  $\rho$   $\rho$ , same locality data and collecting date as holotype (coll. Jonas Köhler, Bonn, Germany: 1  $\sigma$  and 1  $\rho$ ; Museo Nacional de Ciencias Naturales, Madrid, Spain: 1  $\rho$  (voucher number: IBE-AN382), GenBank accession numbers: barcode LT602656, COI: LT602656).

#### ADDITIONAL MATERIAL EXAMINED:

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φ</sub> (coll. Jonas Köhler, Bonn, Germany), same locality data and collecting date as holotype. The specimen is damaged, abdomen, left elytron, and most of the tarsi missing.

DESCRIPTION: Habitus as in Fig. 1. Length: 2.0 mm (male), 2.3 mm (female). Black, head and pronotum partly with shiny aerose to coppery and/or bluish glint, which is less apparent or missing on elytra; legs yellowish-brown, but knees and apical tip of tarsi darker brownish; maxillary palpi dark brown.

Head wider than long (length/width including eyes: 0.78–0.83), with short whitish setae. Anterior margin of labrum with very deep U-shaped excision, anterior lateral angles evenly rounded. Clypeus microreticulate, posterior half sometimes strongly rugosely micropunctate. Fronto-clypeal suture deep. Frons rugosely punctate; punctures micropunctate; elevated interstices glabrous. Ocular grooves subcircular, very deeply impressed. Ocelli well developed, glabrous, slightly closer to inner margin of eyes than to middle of frons. Eyes well developed. Terminal segment of maxillary palpi very small and slender, 0.3 times as long as penultimate one.



Fig. 1: Habitus of Ochthebius scopuli, holotype. Scale bar: 0.5 mm.

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Fig. 2: Aedeagus of Ochthebius scopuli in ventral and lateral view. Scale bar: 0.1 mm.

Pronotum subcordiform, wider than long (length/width ratio: 0.62); anterior margin trisinuate; postocular tooth indistinct; anterior angles acute. Pronotal "ears" very short, lateral sides straight, converging toward anterior angles; lateral emargination almost straight, hardly noticeably concave, with irregularly arranged denticles. Hyaline membrane well developed. Surface of disc distinctly and quite densely punctate; interstices distinctly or superficially micropunctate; discal impressions distinct, rugose; lateral parts of pronotum rugosely punctate. Disc distinctly convex

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in cross section; median groove present; anterior discal foveae very small, subcircular, shallowly or distinctly impressed, posterior ones large, elongate and slightly oblique.

Elytra oblong (length/width ratio: 1.45), distinctly convex in cross section; dorsal transverse impression at anterior 0.3 weak, but well noticeable. Disc with five regular rows of punctures between suture and inner margin of well developed shoulder; punctures of variable shape (rounded to transverse, margins of punctures not well defined), distinctly impressed and very densely arranged, each with one rear-facing white adpressed seta; intervals slightly convex and smooth. Lateral elytral gutter sexually dimorphic.

Hypomeral antennal grooves deep. Metaventral disc pubescent, but pubescence partly rubbed off. Ventrites I–V pubescent, ventrites VI–VII glabrous. Legs moderately long.

Secondary sexual dimorphism: Females on average larger than males. Elytral gutter narrow in male, slightly wider in females, thus elytra appearing more oval. Elytra apically more acuminate in females.

Aedeagus (Fig. 2): Main piece ca. 320 µm long. Distal lobe basally wide, apical half slender and strongly recurved. Hiatus narrow, long and U-shaped, apex slightly widened. Parameres inserted near basal 0.33.



Fig. 3: Type locality of *Ochthebius scopuli* (Gulf of Orosei, Sardinia). The red arrow points to the exact collecting site, a wet crag at the beach "Cala Mariolu" (photograph: C. Herbig).

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DIFFERENTIAL DIAGNOSIS: Externally, the new species somewhat resembles *Ochthebius dalmatinus* GANGLBAUER, 1904 (Italy, Balkan Peninsula, Crete), *O. huberti* JÄCH, 1989 (Turkey), and *O. javieri* JÄCH, 2000 (Menorca), especially due to the shape and sculpture of the pronotum.

*Ochthebius dalmatinus* can be distinguished easily by the less strongly punctate and more evenly and more distinctly microreticulate pronotum.

In *O. huberti* the pronotum is always less strongly punctate, and *O. javieri* is smaller (1.6 mm), the terminal segment of the maxillary palpi is slightly longer, the pronotal "ears" are less strongly produced laterad and their margins are more rounded.

The aedeagus of the new species is remarkably similar to that of *Ochthebius kieneri* JÄCH, 1999, described from Algeria (JÄCH 1999: Fig. 12). In *O. scopuli*, the dorsal margin of the distal lobe is more angulate near the base, and the apical half of the distal lobe is less distinctly enlarged apically.

Despite the remarkable aedeagal resemblance, these two species are probably not closely related (*O. kieneri* was formerly regarded as a synonym of *O. poweri* RYE, 1869 and is therefore probably most closely related to the latter).

HABITAT NOTE: The Gulf of Orosei is a 30 km long bay on the east coast of Sardinia. The area is characterized by huge steep cliffs of the adjacent massif of the Supramonte Mountains. Freshwater drains through the sediment in many places and seeps out as springs on the cliffs faces.

All five specimens of *Ochthebius scopuli* were collected at the beach of "Cala Mariolu" (Fig. 3) on a wet cliff face with algal coating at a height of approximately two meters above the beach (altogether about three meters above the sea level). The sampling spot was on an east-facing cliff, which is hence shaded most of the day.

Additionally, there were tiny rock pools nearby, in which *Ochthebius quadricollis* MULSANT, 1844, was found.

DISTRIBUTION: So far known only from the type locality.

ETYMOLOGY: Scopulus, -i (Latin): cliff. This species is named in reference to its habitat.

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Jonas KÖHLER Rochusstraße 82, D – 53123 Bonn, Germany (jonas.koehler@online.de)

Dr. Manfred A. JÄCH Naturhistorisches Museum Wien, Burgring 7, A – 1010 Wien, Austria (manfred.jaech@nhm-wien.ac.at)

Dr. Juan A. DELGADO

Departamento de Zoología, Facultad de Biología, Universidad de Murcia, E – 30100 Murcia, Spain (jdelgado@um.es)

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