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Hydraena (*Hydraena*) *quetiae* sp.n. from the Iberian Peninsula (Coleoptera: Hydraenidae)

A. CASTRO

Abstract

Hydraena (*Hydraena*) *quetiae* sp.n. is described from the Sierra Madrona (Ciudad Real, southern Spain). It is related to *H. inapicipalpis* PIC.

Key words: Coleoptera, Hydraenidae, *Hydraena*, new species, taxonomy, Spain.

Introduction

The Sierra Madrona is located in the central part of the Sierra Morena chain, close to the southern border of the Hesperian area in the Iberian Peninsula. Recently, a new species of *Hydraena* (*H.* (*Haenydra*) *madronensis* CASTRO, GARCÍA & FERRERAS) has been described from material collected in this area. Among the other *Hydraena* material caught together with the new *Haenydra*, nine specimens of another undescribed *Hydraena* were found. This new species is described below.

Acronyms:
CBP Coll. Bilton, Plymouth
CCG Coll. Castro, Guardamar
CDS Coll. Díaz, Universidad de Santiago de Compostela
MNCN Museo Nacional de Ciencias Naturales, Madrid
NMW Naturhistorisches Museum, Wien

Hydraena (*Hydraena*) *quetiae* sp.n.

TYPE LOCALITY: River Pradillo (also named Azores and Pueblo), Sierra Madrona, Fuencaliente, Ciudad Real province, Spain.

TYPE MATERIAL: **Holotype** ♂ (MNCN): "ESPAÑA C. Real \ Fuencaliente río Pradillo \ 27.07.1999 leg. A. Castro". **Paratypes** (NMW, CCG, CDS, CBP): 6 ♂♂ and 2 ♀♀, same data as holotype.

Length: 1.8 – 2.0 mm. Colour: Head black. Pronotum and elytra brown-reddish. Legs and maxillary palps reddish. Distal article of the maxillary palps without darkened apex.

Head: Anterior edge of labrum with a deep V-shaped incision. Clypeus finely and densely punctured. Frons with large, rugulous and not very deep punctures; interstices between punctures smooth and approximately as wide as punctures.

Pronotum: Sub-hexagonal, bearing a generally rugose aspect. With large punctures more deep and densely arranged toward anterior and posterior margin. Interstices between punctures

shagreened, except in some small areas of pronotal disc, which are smooth and shiny. Anterolateral fovea very distinct. Lateral margins denticulate, strongly bordered in posterior half.

Elytra: Oval, with 10 quite irregular series of punctures between suture and humeral callus. A feeble humeral keel is present. Lateral edge of elytra strongly explanate and feebly denticulate near base and apex. Apex rounded or very slightly truncated.

Metasteral wings well developed.

Male legs: Pro-, meso- and metatibiae distinctly curved, enlarging distally. Metatibiae (Fig. 1) strongly and abruptly dilated inward in distal 1/3. This dilatation bordered by a fringe of long setae which are shorter toward apical end.

Ventral surface of male: Metasternum distinctly depressed between metasternal plaques.

Male genitalia (Figs. 2, 3): Main piece, in lateral aspect, strongly curved near base but straight in distal part; in ventral aspect, sinuous and ending in a truncated apex. Main piece provided with two very long dorsal bristles in its distal part and two small subapical setae. Distal lobe with diverse membranous structures; provided with a conspicuous postero-dorsal tooth-like process which is bifid at the apex and (in dorsal view) with a thin, "Z" shaped flagellum inserted subapically. Left paramere longer than right one, crossing distally over the distal lobe.

Female: Legs not strongly curved and enlarged apically. Metasternum not depressed between metasternal plaques. Apical part of elytra very slightly more acuminate than in males. Fused gonocoxites (Fig. 4) and tergite X (Fig. 5) very similar to those of *H. inapicipalpis* PIC (see DÍAZ PAZOS & OTERO 1992: Figs. 7, 8), but in *H. quetiae* the cavea of the fused gonocoxites is smaller and almost circular.

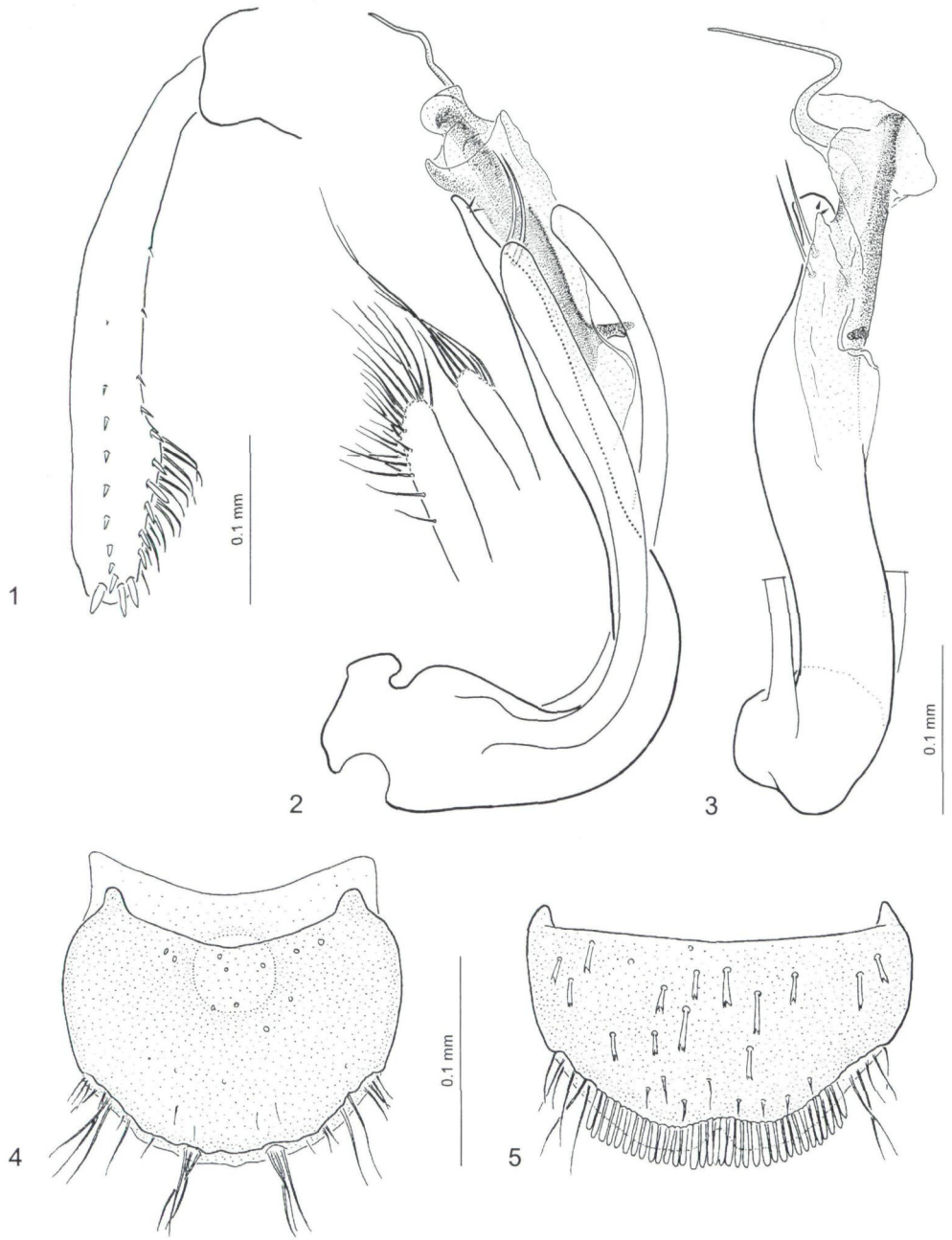
ECOLOGICAL NOTES: *Hydraena quetiae* was collected from a permanent mountain stream with partly stagnant water, at nearly 670 meters. A monthly survey of some water characteristics carried out from May 1983 to April 1984 yielded the following mean values: water temperature 12.5°C, HCO_3^- 21 mg/l, Cl^- 9.8 mg/l, O_2 8.2 mg/l. Specimens were found in flowing areas with abundant plant detritus in the middle as well as close to the banks of the stream. The new species has been collected together with *Hydraena bisulcata* REY, *H. bolivari* d'ORCHYMONT, *H. corrugis* d'ORCHYMONT *H. cordata* SCHAUFUSS and *H. madronensis*.

ETYMOLOGY: Named after my wife "Queti".

Discussion

Hydraena quetiae appears to be closely related to *H. inapicipalpis*. Externally both species are very similar, even though males of *H. quetiae* can be easily distinguished by the mesotibia being less enlarged apically, and especially by the distinctly more dilated metatibia. However, I am not able to externally distinguish females of *H. quetiae* from those of *H. inapicipalpis*. The aedeagi of both species share some basic characters such as the presence of a distal flagellum and the chaetotaxy of the main piece, the distal part of which shows a pair of very long bristles and a subapical pair of small setae, but otherwise they are quite different. The aedeagus of *H. quetiae* is well characterized by its more elongate shape, the well developed membranous structures and the conspicuous dorsal process of the distal lobe, and by the two long bristles of the main piece, which are curved toward the apex, while in *H. inapicipalpis* these bristles are almost straight.

Hydraena inapicipalpis is widely distributed over the mountains of the northern half of the Iberian Peninsula, reaching the French Pyrenees, and its most southerly record is from the Sierra de Altamira (Cáceres). So, *H. quetiae* appears to be its vicariant sister species in the Sierra Morena.



Figs. 1 – 5: *Hydraena quetiae*; 1) male metatibia, 2) aedeagus, lateral view, 3) same, dorsal view (parameres not represented), 4) fused gonocoxites, 5) female tergite X.

So far, a satisfactory classification into species groups of many Iberian *Hydraena* s.str. has not been proposed. BERTHÉLEMY et al. (1992) created the *H. bisulcata* group to include species with a membranous terminal lobe of the aedeagus. *Hydraena quetiae* has a largely membranous terminal lobe and also has the left paramere shaped as is usual in the *H. bisulcata* group (crossing over the distal lobe), but it is clearly more closely related to *H. inapicipalpis* than to any species of the *H. bisulcata* group. On the other hand, according to JÄCH et al. (1998), the species related to *H. bisulcata* and *H. inapicipalpis* will probably be found to belong to the same species group.

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Agustín CASTRO
C/ Cartagena 38, E - 03140 Guardamar (Alicante), Spain