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An update of the *Hydraena* fauna of the Comoro Islands (Indian Ocean), with description of *H. (Hydraenopsis) maryae* sp.n. from Mayotte (Coleoptera: Hydraenidae)

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Abstract

Hydraena maryae sp.n. (Coleoptera: Hydraenidae) is described from Mayotte (Comoro Islands, Indian Ocean). *Hydraena borbonica ofella* BALFOUR-BROWNE, 1958 is elevated to species level.

Key words: Coleoptera, Hydraenidae, *Hydraena*, new species, Mayotte, Comoro Islands, Indian Ocean.

Introduction

The Comoro Islands or Comoros form an archipelago of volcanic islands situated off the south-east coast of Africa, to the east of Mozambique and north-west of Madagascar. Geologically, Maore (or Grande-Terre; Department of Mayotte, France) is the oldest of the Comoro Islands.

So far, only one species of Hydraenidae, *Hydraena borbonica* FAIRMAIRE, 1898 (originally described from La Réunion), has been recorded from the Comoros. BALFOUR-BROWNE (1958) described a new subspecies (*Hydraena borbonica ofella* BALFOUR-BROWNE, 1958) based on these specimens from the Comoro Islands.

In the course of a hydrobiological survey, Nathalie Mary (Tahiti, French Polynesia) managed to collect a second species of *Hydraena* KUGELANN, 1794 in the Comoro Islands. The description of this species is presented herein, together with taxonomic-nomenclatural notes on *Hydraena borbonica ofella*.

Hydraena (Hydraenopsis) maryae sp.n.

TYPE LOCALITY (Fig. 5): Lower course of Djalimou, east of Kani-Kéli, 12°57'14.4"S 45°06'51.7"E, 15 m a.s.l., southern Maoré Island (= Mahoré or Grande Terre), Mayotte, Comoro Islands.

TYPE MATERIAL: **Holotype** ♂ (Naturhistorisches Museum Wien, Austria): "COMOROS Mayotte, Djalimou aval 30.VIII.2013 leg. N. Mary".

DESCRIPTION (male): Habitus as in Fig. 1. Body length: 1.48 mm. Dorsum yellowish to reddish brown, lateral parts of frons (near eyes) black, lateral parts of clypeus, anterior, posterior and lateral sides of pronotum paler yellowish brown; maxillary palpi yellowish, apical tip paled.

Labrum deeply excised anteriorly; lobes rounded anteriorly, without corners. Clypeus sparsely irregularly micropunctate, matt. Fronto-clypeal suture very feebly arcuate, slightly impressed. Frons sparsely (middle) to moderately densely (laterally) punctate, interstices shining; interocular grooves more or less obsolete. Eyes large, protruding, more than 30 facets visible in dorsal view.



Fig. 1: Habitus of *Hydraena maryae*, holotype.



Figs. 2–4: *Hydraena maryae*, 2) aedeagus in a) dorsal view, b) ventral view (setae of right paramere shown in inset) and c) lateral view, 3) terminal sternite and spiculum, 4) male tergite X. Scales: 0.1 mm.

Pronotum wider than long, widest near middle; anterior margin concave; anterior angles subacute, almost rounded; lateral rim slightly denticulate; disc rather flat, moderately densely punctate, glabrous, foveae more or less obsolete; anterior and posterior portions of pronotum more densely punctate.

Elytra subparallel-sided; with about nine rows of punctures between suture and shoulder; punctures moderately large, moderately deeply impressed, arranged in almost regular, not impressed lines; intervals and interstices flat and glabrous; explanate margin of elytra moderately wide, not serrate posteriorly. Elytral apices separately rounded.

Foretibia very slightly curved; medial margin of hind tibia distinctly dilated from base to middle, then slightly concave toward apex.

Mesoventral process slightly narrower than mesotibia, parallel-sided, apically truncate. Metaventricle moderately deeply impressed between glabrous metaventral plaques.

Male terminal sternite and spiculum (Fig. 3) and male tergite X (Fig. 4) strongly asymmetrical, the latter with a conspicuous subapical cavity.

Aedeagus (Fig. 2a–c): Main piece strongly asymmetrical in ventral view, somewhat angulate before middle, with a single subapical dorsal seta, near the base with an acute projection pointing to right side; phallobase asymmetrical, closed proximally. Distal lobe quite large, intricately shaped, with a moderately long, flagellum-like appendage. Right paramere long and slender, articulately connected with main piece, inserted before middle; with a very dense subapical brush of short setae on median face, and with six long setae at apex and subapical ventral margin. Left paramere very short, not articulately connected with main piece, inserted after middle, with a few moderately long setae.

HABITAT: Fig. 5.

DISTRIBUTION: Known only from the type locality.

ETYMOLOGY: This species is named for Nathalie Mary (Tahiti, French Polynesia), who collected the holotype.

***Hydraena (Hydraenopsis) ofella* BALFOUR-BROWNE, 1958**

Hydraena borbonica ofella BALFOUR-BROWNE 1958: 138. – BAMEUL 1986: 877.

Hydraena (s.str.) *borbonica ofella* BALFOUR-BROWNE: HANSEN 1998: 38.

BALFOUR-BROWNE (1958) described this taxon after specimens collected near Dzaoudzi (type locality) on the island of Pamanzi (very close to Maoré, the main island of Mayotte; Department of Mayotte, France) and from Mohéli (Union of the Comoros). Since then, it has never been collected again.

The aedeagi of *Hydraena borbonica borbonica* and *H. borbonica ofella* were illustrated by BALFOUR-BROWNE (1958: fig. 2). They are sufficiently different to allow the conclusion that *H. borbonica* (so far known only from La Réunion) and *H. ofella* are indeed two discrete species.

DISTRIBUTION: So far known only from two islands in the Comoros: Mohéli, Pamanzi (= Petite Terre).

Discussion

Hydraena maryae is the second species of Hydraenidae recorded from the Comoro Islands, and the first one recorded from Maoré, the main island of the Department of Mayotte, France. It does not appear to be particularly closely related with any other described species of *Hydraena*

described so far. However, it is obviously very closely related with an undescribed species from northern Madagascar (P. Perkins, pers. comm.). The species known from the Seychelles (see JÄCH & DELGADO in press) and the Mascarene Islands (see BAMEUL 1986, JÄCH & BROJER 2012) are all quite different.

Remarkably, the genus *Hydraena* has not yet been recorded from the two largest islands of the Comoro Archipelago: Grande Comore and Anjuan.



Fig. 5: Type locality of *Hydraena maryae*.

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