

## A new species of *Micatagla* from Socotra Island (Hymenoptera: Bradynobaenidae: Apterogyninae)

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**Abstract.** *Micatagla hajeki* sp. nov., a new species belonging to the genus *Micatagla* Argaman, 1994, closely related to *M. antropovi* Pagliano, 2002, is described from specimens recently collected during the Czech entomological expeditions on the island of Socotra. The new species is characterized by uniformly pale red body, with the exception of black terga II–VI and white spurs on legs; and by small lateral teeth of tergum VI distributed regularly on the margins, getting smaller in proximity of the apex.

**Key words.** Hymenoptera, Bradynobaenidae, *Micatagla*, new species, Yemen, Socotra

### Introduction

Bradynobaenidae is a widely distributed family of Hymenoptera, which includes about 190 species belonging to ten genera and four subfamilies worldwide (PAGLIANO 2002). Among those, the subfamily Apterogyninae occurs mostly in the Afrotropical Region, with several recently described species reaching also the Arabian Peninsula (see PAGLIANO 2004, 2008, 2011; GADALLAH et al. 2014).

The subfamily Apterogyninae, as well as the whole family Bradynobaenidae, was known from the Socotra Archipelago from a single species, *Micatagla pavesii* Pagliano, 2002, so far recorded for the westernmost island of Abd el Kuri (PAGLIANO 2002). Recent investigations carried out by Czech entomologists on the main Socotra Island revealed the occurrence of a new peculiar species belonging to the same genus, which is described below.

Members of the genus *Micatagla* Argaman, 1994 are widely distributed in Africa, but only two species have been so far recorded for Asia (PAGLIANO 2002, GADALLAH & SOLIMAN 2014). Their biology is still unknown.

### Material and methods

Examination and measurements of specimens were done using Optika SZM-2 stereo-binocular microscope equipped with a micrometer eyepiece and Dino-Lite AM2011 digital microscope supported by DinoCapture 2.0 software. Pictures were made using Canon Eos 400D digital camera mounted on the same stereo-binocular microscope; images were then processed with CombineZP Image Stacking software.

Terms used in morphological and surface sculpture description follow HARRIS (1979) and HUBER & SHARKEY (1993), respectively; in addition, malar space indicates the shortest distance from lower ocular margin to mandibular base.

In the label transcriptions, a slash (/) separates different lines of data. Specimens are deposited in the following institutional and private collections:

GPCI Guido Pagliano private collection, Torino, Italy;  
 NMPC Národní muzeum, Praha, Czech Republic.

### Taxonomy

#### *Micatagla hajeki* sp. nov.

(Figs 1–2)

**Type locality.** YEMEN, Socotra Island, Noked plain, Abataro vill. env., 12°22.1'N, 54°03.4'E.

**Type material.** HOLOTYPE: ♀, 'Yemen: Socotra Island / Noked plain, Abataro / border of sand dunes and / shrubland 12-13.vi.2012 / 12°22.1'N, 54°03.4'E, 20 m', 'Socotra Expedition 2012 / J. Bezděk, J. Hájek, V. Hula, / P. Kment, I. Malenovský, / J. Niedobová & L. Purchart leg.' (NMPC). PARATYPE: ♀, 'Yemen, Soqotra Is., 2003 / 6-7/xii., Noked plain / Wadi Ireeh, 95 m / N12°23'11" E53°59'47" / [GPS] David Král lgt.', 'Yemen – Soqotra 2003 / Expedition; Jan Farkač, / Petr Kabátek & David Král' (GPCI).

**Diagnosis.** A *Micatagla* female characterized by uniformly pale red body, with the exception of black terga II–VI and white spurs on legs; and with small lateral teeth of tergum VI distributed regularly on the margins and getting smaller in proximity of the apex.

**Description. Female holotype.** Body length: 6.9 mm. Habitus as in Fig. 1.

**Colour and pubescence.** Head including antennae and mesosoma uniformly pale red, except for mandibles which become dark in distal part; metasomal segment I slightly darker; terga II–VI black; legs pale red with spurs white. Head and mesosoma with golden-yellow pubescence, on head recumbent and converging toward vertex; some scattered and long setae around eyes and on lateral margins of mesosoma, forming small tufts at mesonotal suture; metasoma with whitish pubescence, longer than that on head and mesosoma, becoming dense and longer on terga III–V; posterior margin of terga I–III with white pubescence, tuft-belted on tergum I and forming continuous fasciae on terga II–III.

**Head.** 1.3 times wider than pronotum (including eyes); surface densely punctured in proximity of toruli, punctures sparser on vertex; antennomere III longer than antennomere IV;



Figs 1–2. *Micatagla hajeki* sp. nov. 1 – habitus in dorsal view; 2 – dorsal surface of the metasoma.

mandible unidentate; clypeus and genae smooth and shiny, without punctation; malar space 0.9 times maximum orbital diameter; eyes fairly protruding from head profile, sub-ellipsoidal, 1.2 times longer than wide (in lateral view); middle-transversal axis of eyes placed above middle line between apex of clypeus and vertex, in frontal view; interocular distance 0.75 times maximum width of head, in dorsal view.

*Mesosoma*. 1.3 times longer than wide, with larger punctation than on mesonotum placed between small carinae, and forming slight longitudinal striae; pronotum straight, with obtuse fore angles, narrower than mesoscutum; pleura weakly strigate, with thin striae that become more evident near suture.

*Metasoma*. Tergum I 1.1 times longer than wide, with large and roundish foveolate punctation, distance between punctures 1.0–1.5 times puncture diameter. Tergum II with elongate and variolate punctation forming longitudinal striae. Tergum III more finely punctured, with striae present but less distinct than on tergum II (Fig. 2). On both terga II and III, punctation becomes sparser, superficial and finer laterally, posterior margins are slightly brightened and uniformly wide, and surface is bright and shiny. Surface of tergum VI crossed by longitudinal carinae; lateral margins with small teeth almost uniformly sized, just slightly smaller in the proximity of apex.

**Male.** Unknown.

**Variability.** The body length of the paratype is 4.7 mm; its pubescence is less dense; however, other chromatic and morphological characters are basically as in the holotype.

**Differential diagnosis.** According to the key given by PAGLIANO (2002) and updated by PAGLIANO & ROMANO (2012), the new species is the most similar to *M. antropovi* Pagliano, 2002 from Yemen, Saudi Arabia and Egypt (GADALLAH & SOLIMAN 2014). However the latter species can be distinguished from *M. hajeki* sp. nov. based on antennae not uniformly red, the silvery pubescence of head and mesosoma, the shape and distribution of punctation on terga II–III (see PAGLIANO 2002: 223, Fig. 90), as well as the tergal posterior margins brightened and clearly expanded in the middle, and slightly larger and sparser teeth occurring in the middle of the lateral margins of tergum VI.

In addition, the geographically nearest species, apparently endemic to the Socotra Archipelago, *M. pavesii* Pagliano, 2002, is characterized by body entirely red except the apical tergum, and by a different pattern of punctation on mesosoma and metasoma.

**Etymology.** We are pleased to dedicate the new species to Jiří Hájek, who has contributed significantly to the knowledge of insect biodiversity of the Socotra Archipelago.

**Biological and zoogeographical notes.** Data from the labels indicate the occurrence of the new species in arid coastal or peri-coastal areas of the southern slope of Socotra; concerning the two localities so far known, Abataro is mainly occupied by sand dunes and covered by scarce and scattered vegetation (see BEZDĚK et al. 2012: 51, Fig. 1), while Wadi Ireh (whose prevailing spelling is Wadi Ireh, according to BEZDĚK et al. 2012) is characterized by a mixed sandy-rocky substrate. Other traits of the biology of *M. hajeki* sp. nov. are still unknown.

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