

## *Hypophyes mariae* sp.n. from Iran (Coleoptera: Nanophyiidae)

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### Abstract

*Hypophyes mariae* sp.n. (Coleoptera: Nanophyiidae) is described from Semnan Province in northern Iran.

**Key words:** Coleoptera, Curculionoidea, Nanophyiidae, Corimaliinae, *Hypophyes*, taxonomy, new species, Iran.

### Introduction

The species formerly belonging to the genus *Corimalia* GOZIS, 1885 were divided by ALONSO-ZARAZAGA (1989) into four genera, of which *Hypophyes* REITTER, 1916 was resurrected from synonymy. The latter genus was based on *Rhynchaenus pallidulus* GRAVENHORST, 1807, which is characterized by the four-segmented antennal funicle, yellow or reddish body colour, very short tarsomere 3 and relatively long tarsi (REITTER 1916). When studying the relationships among the Corimaliinae genera ALONSO-ZARAZAGA (1989) defined *Hypophyes* as follows: tegminal plate with one pair of postapical setae, long flagellum, evenly narrowed to the tegminal part of the male genitalia, without bulbous intumescence; profemoral teeth very short, hardly exceeding 0.12 of profemoral width; rostrum almost straight, of approximately the same length in both sexes; body length less than 1.67 mm; colour testaceous, more or less maculate; etc. According to ALONSO-ZARAZAGA (2011), there are five known valid Palearctic species of *Hypophyes*.

During an intensive study on the weevil fauna in the Province of Semnan, northern Iran, I collected a large series of strikingly black *Hypophyes* living on *Tamarix* sp. These specimens turned out to represent a new species, which is described below.

### Abbreviations:

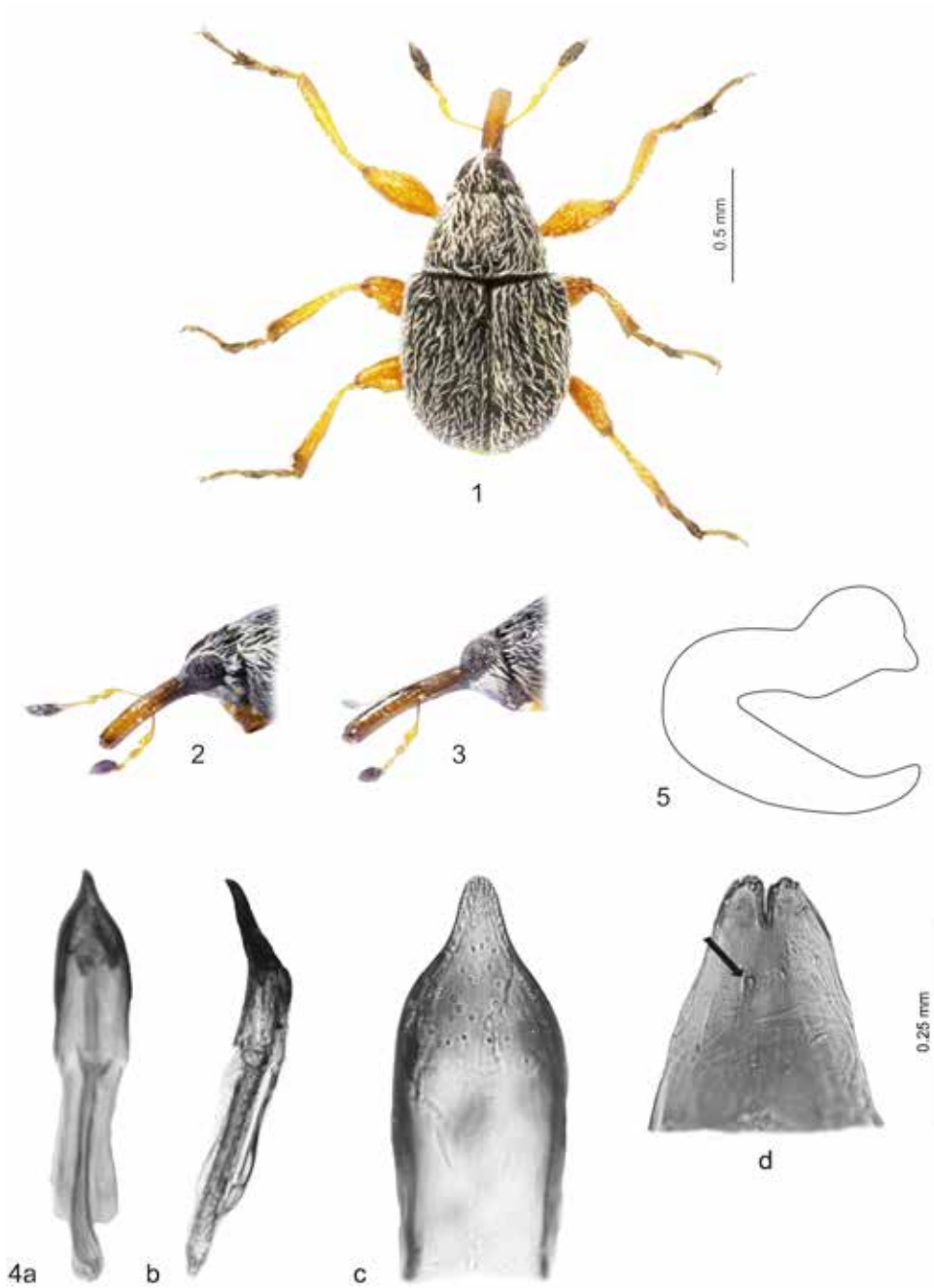
CKo Collection Michael Košťál, Šoporňa, Slovakia  
CSn Collection Karel Schön, Litvínov, Czechia  
MTD Museum für Tierkunde, Dresden, Germany  
NMW Naturhistorisches Museum Wien, Austria

E elytra  
l length  
P pronotum  
R rostrum  
w width

### *Hypophyes mariae* sp.n.

TYPE LOCALITY: Ahuan, Semnan env., Semnan Province, northern Iran.

TYPE MATERIAL: **Holotype** ♂ (CKo): "Iran bor. SEMNAN Michael Košťál leg. \ Semnan 20 km NO Ahuan env. 1600 m N 35°40.8' E 53°36.9' 7.v.2016 \ Tamarix sp.". **Paratypes**: 14 ♂♂, 21 ♀♀ (CKo), 1 ♂, 1 ♀ (CSn), 1 ♂ (MTD), 1 ♂ (NMW): same data as holotype.



Figs. 1–5: *Hypophyes mariae* sp.n.: 1) habitus (holotype), 2) head in lateral view (holotype), 3) head in lateral view (female paratype), 4a) penis (dorsal view), 4b) penis (lateral view), 4c) apex of median lobe, 4d) apex of tegminal plate, 5) spermatheca. Figs. 2, 3, 4c, 4d, 5 not to scale.

**DIAGNOSIS:** This species differs from all other species of the genus in the uniformly black elytra, pronotum and head, darkened or black tarsi and antennal club, slightly more distinct sexual dimorphism of rostrum length, and in the broad median lobe of the penis, which is tapered towards the neb-like apex.

**DESCRIPTION:** Holotype (Fig. 1): completely preserved male specimen, 1.24 mm long excluding rostrum.

**Integument:** Black and visibly shining, legs except tarsi, rostrum except its base and antennae except club reddish brown. Pronotum, elytra, head, especially between eyes, and most of the proximal rostrum base covered by relatively densely arranged recumbent unicolourous whitish, markedly elongated ( $l/w = 6-8$ ) hair-like scales. Femora with recumbent, tibiae and tarsi with subrecumbent to erect pale setiform narrow long scales.

**Head:** Eyes very large, not protruding from head outline. Frons strikingly narrow, about  $1/5$  of the width of the rostrum at base, strongly divergent backwards. Rostrum (Fig. 2) moderately thin, in dorsal view in basal part parallel-sided, in apical part nearly indistinctly broadened to apex, in lateral view very moderately and evenly curved, slightly longer than pronotum ( $Rl/Pl = 1.09$ ), in basal part densely, in apical part more sparsely punctured, without setiform scales. Antennae inserted at  $0.46$  of rostrum length, scapus markedly widened at the distal  $1/4$  of its length, bent inward, funicle with four antennomeres, first of the same width as apical part of scapus, less than twice as long as wide, second half as long as first, approximately twice as long as wide, third and fourth antennomeres of funicle small, subglobose; antennal club spindle-shaped, elongate ( $l/w = 3.3$ ).

**Pronotum:** Wider than long ( $Pw/Pl = 1.40$ ), sides very slightly curved to straight, convergent to anterior margin, without strangulation, widest near base, flat on disc, with relatively densely arranged round punctures.

**Elytra:** Moderately longer than wide ( $El/Ew = 1.11$ ),  $1.34$  times broader than pronotum at base, maximum width at the middle of their length, in lateral view slightly convex on disc.

**Venter:** Covered by recumbent whitish setiform scales. Metaventricle moderately convex, densely transversely ribbed.

**Legs:** All femora with tiny simple sharp tooth of about  $0.14$  maximum femoral width or shorter. Meso- and metatibiae at apex with two subparallel combs of brown setae not forming corbels. Tarsi relatively long, first tarsomere three times as long as wide, tarsomere 2 about twice as long as wide, tarsomere 3 short, deeply bilobed, onychium of  $0.7$  length of tarsomeres 1–3 combined. Claws simple, well separated, of the same length.

**Penis (Fig. 4):** Median lobe (Figs. 4a–c) broad, markedly narrowed in apical third and broadly pointed at apex; intertemonal flagellum (Figs. 4a–b) distinctly longer than temones; apex of tegminal plate (Fig. 4d) deeply incised, with indicated preapical pair of sockets (arrow) and several apical anchoring sockets.

**Female:** Rostrum (Fig. 3) on average moderately longer, antennal insertion approximately in the middle of rostrum length. Elytra on average more elongated. Spermatheca as in Fig. 5.

**Variability:** Body length:  $\sigma\sigma$  1.22–1.39 mm,  $\varphi\varphi$  1.38–1.51 mm, elytra ( $l/w$ ):  $\sigma\sigma$  1.11–1.26 mm,  $\varphi\varphi$  1.16–1.35 mm. The type series (40 specimens) shows no significant variability in the body vestiture, colour and pronotum shape.

**Comparative notes:** *Hypophyes mariae* differs from all other known species of the genus in the black body colour and the shape of the median lobe. It is probably most closely related to *H. exiguus* (FAUST, 1890) and *H. hyalinus* (ZHERIKHIN, 1972) due to the elongate tarsomere 2. I have studied two syntypes and a third specimen, probably also a syntype, of *H. exiguus*, depo-

sited in the MTD (collection Faust). I have remounted the genitalia into glycerine and revealed that, except the yellowish brown body colour, this species has a completely different median lobe.

To some extent, especially in colour, *H. mariae* resembles *Titanomalia komaroffi* (FAUST, 1877), from which it differs in the body size, the nearly straight rostrum, shorter tarsomere 2, and in the male genitalia.

DISTRIBUTION: Semnan Province, northern Iran.

BIOLOGY: All specimens were found on *Tamarix* sp. growing on loess on valley slopes.

ETYMOLOGY: I devote this new species to my mate Mária, who supports me unflinchingly during my field trips.

### Acknowledgements

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