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## New species of *Epuraea* (*Micruria*) from Oman (Coleoptera: Nitidulidae, Epuraeinae)

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**Abstract:** New species *Epuraea* (*Micruria*) *omanica* sp. nov. from Oman is described and its relationship to closely related invasive Oriental species *E. (M.) reticulata* GROUVELLE, 1892 and Eastern Palaearctic species *E. (M.) bergeri* SJÖBERG, 1939 is discussed.

**Key words:** sap beetles, *Epuraea* (*Micruria*) *omanica* sp. nov., *E. (M.) reticulata* GROUVELLE, 1892, *E. (M.) bergeri* SJÖBERG, 1939, taxonomy, new species, Arabian Peninsula.

### INTRODUCTION

Currently, *Micruria* REITTER, 1875 is recognized as a subgenus within the genus *Epuraea* ERICHSON, 1843. Over the past three decades, many new species of this subgenus have been described (KIREJTSHUK 1998, 2005, ZHAO *et al.* 2014, DASGUPTA *et al.* 2016). In 1998, Kirejtshuk proposed to divide the subgenus into five species-groups: *auripubens*, *consobrina*, *grouvellei*, *mandibularis* and *melanocephala*. Currently, are 58 known species distributed in Palaearctic and Indo-Malayan Regions. According to the most recent catalogue (JELÍNEK & AUDISIO 2007) only one of them is known from Western Palaearctic region: *E. (Micruria) melanocephala* (MARSHAM, 1802).

In the present paper, a new species of *Epuraea* (*Micruria*) from Oman is described. It belongs to the *consobrina* species-group.

### MATERIAL AND METHODS

Examination, dissection and measurements were completed with the use of stereomicroscope Leica M125 with an ocular micrometer. For the study of genitalia, specimens were relaxed in warm water and subsequently dissected under the stereomicroscope. Genitalia were rinsed with water, then transferred to propyl alcohol and embedded in a drop of Canadian balm on plastic board and placed on the same pin as the relevant specimen. Pictures were taken using a Canon EOS M6 Mark II Digital camera with an attached Carl Zeiss SMIplan 3,2x/0,10/160 - microscope lens as numerous separate images and subsequently combined with Helicon Focus 7.7.4 Pro software.

Body length was measured from anterior margin of clypeus to the apex of pygidium, body width as maximum width of elytra combined. The following acronyms are used for morphological terms: ANCL – length of antennal club; ANCW – width of antennal club; ANLE – length of antenna; HEAW – width of head across eyes; LELY – length of elytra from the tip of scutellar shield to the tip of elytra; LEPR – length of pronotum along median axis; WELY – maximum width of elytra combined; WPR1 – width of pronotum between posterior angles; WPR2 – maximum width of pronotum; WPR3 – width of pronotum between anterior angles;

Exact label data are cited for the type material. Individual labels are separated by a double slash (//), different rows by simple slash (/). Additional comments and/or explanatory notes are given in square brackets.

Material studied is deposited in the following institutional and private collections:

ALBC – collection Andrzej Lasoń, Białystok, Poland

NMPC – National Museum, Prague, Czech Republic

USMB – Upper Silesian Museum, Bytom, Poland

## TAXONOMY

*Eपुरaea (Micruria) omanica* sp. nov.

<http://zoobank.org/urn:lsid:zoobank.org:act:435A208A-560B-4909-83F2-4DE40B521DB2>

(Figs. 1–4, 7, 10)

**Type material. Holotype**, m\*: OMAN, Dhofar/ Al Mughsayl env./ 30.IX – 1.X.2003/ leg. Jákł St./ [laser printed]// coll. Andrzej Lasoń 71715// Holotype/ *Eपुरaea (Micruria) omanica* sp. nov./ Andrzej Lasoń det. 2021 [printed, red label] (USMB).

**Paratypes**: 3 f\*f\*, OMAN same data as holotype [laser printed]// (ALBC, NMPC, USMB).

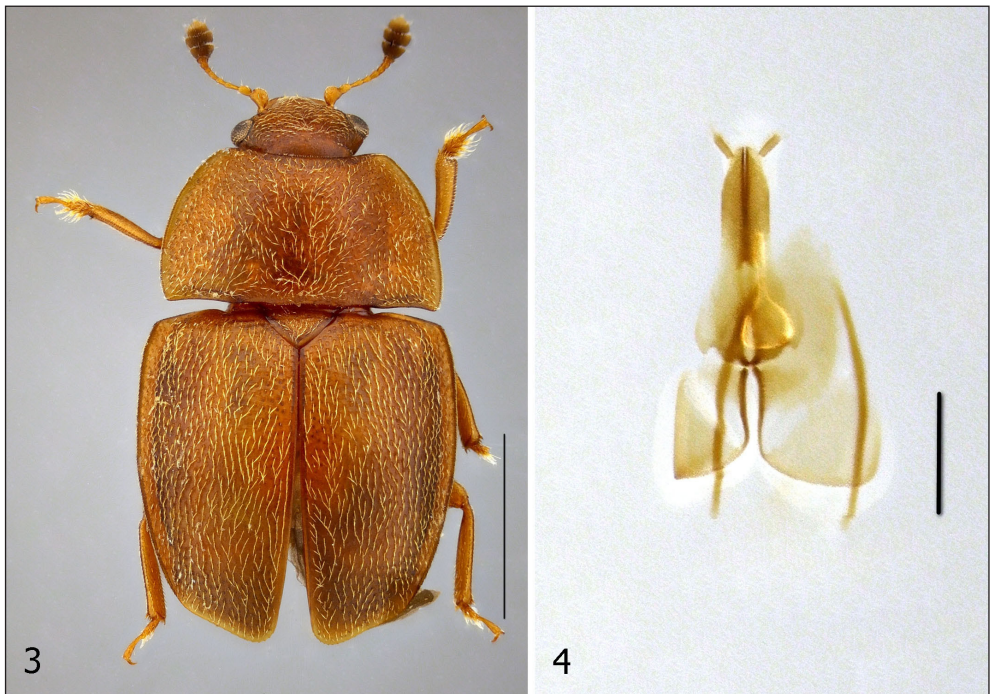
**Description**. Male. Oval, convex, pronotum, scutellar shield and discal area of elytra light brown, lateral and posterior part of elytra darker, brownish to almost black. Explanate sides of elytra completely light brown. Dull. Pubescence conspicuous, long, recumbent. Body length 2.6–3.2 mm (holotype 3 mm), width 1.4–1.6 mm (holotype 1.6 mm).

Head transverse, constricted, slightly narrower than anterior pronotal margin (ratio WPR3/HEAW = 1.18). Eyes moderately convex and densely faceted. Temples oblique, slightly rounded. Punctures shallow, equal in size to eye-facets, separated mostly by one diameter or less, interspaces moderately shining. Punctures of head shallow and hardly visible, very dense, distinctly much larger than eye facets. Labrum with a deep median incision. Apical margin of clypeus straight. Antennae almost as long as width of head across eyes, ratio ANLE/HEAW = 1.02. Antennal club oval, ratio ANCL/ANLE = 0.35, ANCL/ANCW = 1.60. Antennal flagellum slender.

Pronotum almost twice as wide as long (ratio WPR2/LEPR = 1.91), widest behind its midlength, more strongly narrowed anteriorly than posteriorly (ratio WPR1/WPR2 = 0.94, WPR3/WPR2 = 0.56). Anterior margin slightly emarginate. Anterior angles rounded. Lateral margins arcuate, sides narrowly explanate, slightly wider at the posterior angles. Basal margin slightly bordered, truncate in the middle, shallowly concave besides posterior angles, which are acute and slightly projecting posteriorly. Pronotal disc convex, covered with adjacent yellowish hairs. Punctures shallower and dense, separated by less than one diameter, interspaces shining.



Figs. 1–2. *Epuraea (Micruria) omanica* sp. nov. (1) dorsal habitus, male (Oman, Dhofar) (holotype); (2) ventral habitus, male (holotype). Scale bars = 1.0 mm.



Figs. 3–4. *Epuraea (Micruria) omanica* sp. nov. (3) dorsal habitus, female, (scale bar = 1.0 mm); (4) ovipositor (scale bar = 0.2 mm).



Figs. 5–6. (5) *Epuraea (Micruria) bergeri* dorsal habitus, male (Russia, Primorye); (6) *Epuraea (Micruria) reticulata* dorsal habitus, male (Lao, Huaphanne). Scale bars = 1.0 mm.

Scutellar shield triangular, punctate like frons, punctures separated by less than one diameter. Elytra widest almost at their midlength, narrowed both anteriorly and, more strongly so, posteriorly, separately widely rounded apically, almost truncate, reaching their maximum length in sutural half. Ratio LELY/WELY = 1.13. Base nearly as wide as the base of pronotum, humeral angles obtuse, not prominent. Sides narrowly explanate. Sutural angles almost rounded. Sutural lines indistinct. Surface convex, punctate like pronotum, interspaces smooth.

Pygidium finely densely punctate and reticulate, truncate apically; tergite VIII exposed, semicircular.

Ventral part (Fig. 2). Postmentum flat, microscopically alutaceous with densely spaced shallow indistinct punctures. Antennal furrows slightly marked.

Prosternum convex, transversely wrinkled; anterior margin bordered. Prosternal process broad, broadly rounded apically, at the apex densely wrinkled, like a fingerprint. Hypomera finely granulated. Mesoventrite transversely convex, finely aslant strigose with longitudinal shining bulge abruptly sloping toward posterior intercoxal process. Meso-metasternal suture between mesocoxae indistinct. Metaventrite broadly transversely convex, flattened in the middle with longitudinal shallow incision, interspaces moderately shining in the middle, reticulate laterally. Punctures in the middle denser and deeper, separated by 0.5 diameters, becoming gradually sparser and shallower laterally, almost indistinct. Mesocoxal lines conspicuous, running close at posterior margins mesocoxal cavities. Posterior intercoxal margin of metaventrite broadly and deeply emarginate, widely v-shaped. Abdominal sterna punctate like sides of metasternum, metacoxal lines closely bordering metacoxal cavities.



Figs. 7–12. *Eपुरaea (Micruria) omanica* sp. nov. (7) tegmen, ventral view, (10) median lobe, lateral view; *Eपुरaea (Micruria) bergeri* (8) tegmen, ventral view, (11) median lobe, lateral view; *Eपुरaea (Micruria) reticulata* (9) tegmen, ventral view, (12) median lobe, lateral view. Scale bars = 0.5 mm.

Hypopygium broadly rounded apically. Distances between pro-, meso- and metacoxae as 1:1:2.7. Pro- and metafemora oval, 2.2x longer than wide. Mesofemur slender 2,7x as long as wide. Protibia slightly curved, becoming gradually wider distad, outer subapical angle obtuse, not prominent. Protarsomeres 1-3 bilobed, dilated, the same width as the apex of tibia. Mesotibia simple, ca 3x longer than wide. Mesotarsomeres bilobed, narrow, 0.8x the width of tibia. Metatibia ca 5x longer than wide, simple. Metatarsomeres simple. All tarsal claws obtusely toothed at base.

**Male genitalia** as figured (Figs. 7, 10). Tegmen ca 1.73x longer than wide, gently narrowing apically with narrowly rounded/ bluntly pointed tips, well sclerotized. Median lobe ca 3.4x longer than wide, subparallel-sided in proximal two thirds then slightly narrowed apically with broadly rounded apex.

**Female.** Generally corresponding to male. It differs in the apex of elytra, which is obliquely truncate in females. Elytral surface between punctures microscopically rugose. Protarsomeres 1-3 narrower, 0.75x the width of tibia. Ovipositor as figured (Fig. 4).

**Variation.** Sometimes whole surface of elytra unicolour whitout darker parts. Ratio WPR1/WPR2 = 0.94-0.97; WPR3/WPR2 = 0.57-0.61; WPR2/LEPR = 1.82-1.91; LELY/WELY = 0.88-0.96. Body length 2.6-3.2 mm.

**Differential diagnosis.** The new species is closely related to *E. (M.) reticulata* GROUVELLE, 1892 (Fig. 6). However, *E. reticulata* mainly differs by coloration of body and differently shaped elytral apices in female. The coloration of body resembles *E. (M.) bergeri* SJÖBERG, 1939 (Fig. 5) but the latter exhibits a different shape of metatibia and metafemur in male and differently shaped elytral apices in female. Both species belong to the *consobrina* species-group. Male genitalia of compared species as figured (Figs. 8–11, 9–12).

**Type locality:** Al Mughsayl, prov. Dhofar. Oman

**Distribution.** This species is currently known only from Dhofar province, Oman.

**Etymology.** A toponymical adjective, after the Oman.

**Remarks.** *E. reticulata* was originally described from Myanma by GROUVELLE (1892), but it is widely distributed throughout the southern Palearctic region (Pakistan, India, Bhutan, Nepal) (JELÍNEK 1978, KIREJTSHUK 1998) and Oriental region (Vietnam, Malaysia) (KIREJTSHUK 1998). *E. bergeri* is known from China, Japan, Korea and Far East of Russia (KIREJTSHUK 1998). *E. omanica* is currently known only from the Oman, it is the second species of the subgenus *Micruria* from the western Palearctic.

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