New species of the genus *Nebria* Latreille, 1802 (Coleoptera: Carabidae: Nebriini) from Morocco

Adolf MIKYŠKA

Jiráskova 275, CZ-290 01 Poděbrady, Czech Republic
e-mail: adolfmikyska@email.cz

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Abstract. A new species of the genus *Nebria* Latreille, 1802, *Nebria blazeji* sp. nov., is described and illustrated.

INTRODUCTION

During their entomological trips in 2019 to the High Atlas in Morocco, three Czech entomologists (L. Blažej, P. Moravec, P. Vonička) collected five interresting specimens of the genus *Nebria* Latreille, 1802, that represent a new species to science. The species is described in the present paper, illustrated and compared with similar species. The subgenus affiliation of this species was not very clear. The species appears to be on the border between two subgenera, *Alpaeonebria* Csiki, 1946 and *Nebria* s. str. Latreille, 1802. As more features point to the first subgenus (see Ledoux & Roux, 2005, p. 302), I will classify the new species as *Alpaeonebria*. The new species raises the number of species of this subgenus from 19 to 20.

MATERIAL AND METHODS

The description is based on the holotype. Variability is described, if required in the "Variation" section and includes features shown by paratypes. The body length was measured from the apex of the left mandible to the apex of the left elytron. Pronotal length was measured along the midline. The male genitalia of the species described in this paper were dissected out of water-softened adults. The aedeagus was glued to a white card and pinned under the relevant specimen.

The photograph was taken using a Canon MP-E 65mm/2.8 1-5x Macrolens on bellows attached to a Canon EOS 30D camera. The photograph was taken as several partially focused images and afterwards composed using Helicon Focus 3.20.2 Pro software and modified using Adobe Photoshop.

Holotype and paratypes are deposited in collections: CLBV - private collection of Lukáš Blažej, Varnsdorf, Czech Republic, CPVL - private collection of Pavel Vonička, Liberec, Czech Republic, CPML - privat collection of Pavel Moravec, Litoměřice, Czech Republic.

Abbreviations used in the text are as follows: BL - body length, PL - pronotal length, PW - pronotal width, PBW - width of pronotal base, PAW - width of pronotal apex, EL - elytral length, EW - elytral width.

In the label data of type material, a slash (/) separates data in separate rows.

TAXONOMY

Nebria blazeji sp. nov.

(Figs. 1-3)

Type material. Holotype (♂): "Morocco, High Atlas Mts. / Adrar Tircht Mt. 3300-3500m / 22.5.2019 Blažej L., Vonička P. / & Moravec. P. lgt." (CLBV). Paratypes: (2 ♀♀): the same data as holotype, (CPML, CPVL), (2 ♀♀): "Morocco, High Atlas Mts. / Adrar Tircht Mt. / 3300-3500m, 22.5.2019 / P. Vonička lgt." (CPVL, CLBV). The types have a printed red label: 'Nebria blazeji sp. nov. HOLOTYPUS or PARATYPUS, A. Mikyška det. 2024'.

Description of holotype. Habitus as in Fig. 1, size medium, body length 11 mm. Colour of body reddish-brown, legs and antennae darker, palps lighter. Wingless.

Head. Labrum smooth with 6 setae, clypeus fine furrowed with 2 lateral setae, frons with some shallow roughness and punctures, vertex without red spot. Eyes medium sized, temples not expressed, neck with distinct dorsal constriction. Antennae extending beyond halfway point of elytra. First antennomere massive, see Fig. 2, unisetose, the second antennomere bears one seta on ventral side and two fine setae on inner side. The penultimate labial palpomere trisetose. Submentum with 3 + 4 setae. Microsculpture - isodiametric, perceptible in frontal furrows, behind eyes and on neck.

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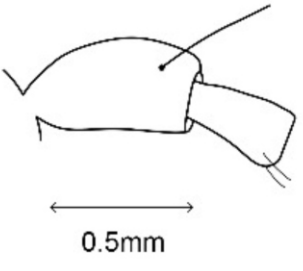

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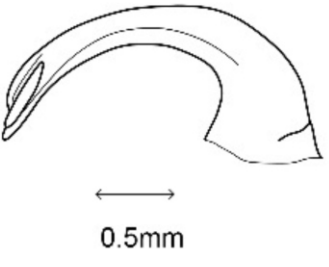

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Fig. 1. *Nebria blazeji* sp. n.: habitus of holotype.
Fig. 2. First and second antennomere of holotype.
Fig. 3. Median lobe of aedeagus of holotype.

Pronotum cordate, weakly convex, 1.47 times as wide as long. Maximal width in anterior quarter. Anterior angles rounded, developed anteriorly in to large lobes. Sides of pronotum distinctly concavely sinuate in the basal quarter. Posterior angles slightly sharp-angled, protruding backwardly and exteriorly. Marginal gutter fairly wide, passing to deep basal fovea. Pronotal lateral margin distinctly elevated. Single seta close to the broades part and posterior seta close to the hind angle. Base of pronotum slightly concave, 0.85 of the width of the anterior margin. Basal depression, lateral gutter and anterior depresssion distinctly punctured, punctures of basal depression coarse and dense. Microsculpture isodiametric, clearly visible laterally, indistinct on the disc.

Elytra oval, 1.7 times as long as wide, 1.4 times as wide as pronotum. Maximum width just behind the point of elytral length. Striae deepest near the base, becoming shallower laterally and apically. Punctuation very fine, absent near the base and near apex. Intervals slightly convex, flattened apically and laterally. Scutellar pores present. Four dorsal pores in third stria of each elytron. Basal margin slightly concave, joining lateral margin at less distinct obtuse angle. Humeral carina short, distinct, without tooth. Apical carina flat, weakly expressed. Microsculpture distinct, isodiametric.

Venter punctured, prosternum very superficially and sparsely, mesosternum coarsely, metaepisterna coarsely and densely. Puncturation also visible in first visible ventrite. Metaepisterna slightly longer than wide. Prosternal process edged. Number of setae in metacoxa 3+1. (Three setae basally and one seta apically). Ventrites 4-6 with 4-5 setae on each side. Last visible ventrite with 1 seta on each side (paratypes - female with 2 setae). Tarsi with setae above.

Male genitalia. Median lobe of aedeagus as in Fig. 3.

Variation. The type specimens vary somewhat in size. Each character is given as its mean value with full range in parentheses. Specimens (n=5): BL 11.7 mm (11-12.4 mm), PL 2.07 mm (1.9-2.2 mm), PW 2.86 mm (2.8-3.1 mm), PBW 1.77 (1.7-1.8), PAW 2.15 (2-2.35), EL 7.17 mm (6.7-7.5 mm), EW 4.32 mm (3.95-4.6 mm). Colour of elytra vary. Some specimen have elytra reddish-brown (holotype), the others pitchy brown or pitchy dark brown. Colour of head and pronotum consistently reddish-brown. Variation in chaetotaxy: penultimate labial palpomere trisetose in holotype and tetrasetose in all paratypes (fourth seta always smaller). Other features suggest that this beetle should be treated as a member of subgenus *Alpaeonebria*. Number of setae in metacoxa vary from 2 to 4+1, number of setae in ventrites vary from 2 to 8 on one side, generally 4-5 on each side.

Remark. The number of setae on the penultimate article of the labial palpae is an important character for determination of subgenus placement. The subgenera *Alpaeonebria* and *Nebria* s. str. arose relatively recently by splitting from a common evolutionary ancestor. The inconsistency in the number of setae in the penultimate labial palpomere between male and female leads to a suspicion that this separation is not yet complet. For verification of this idea, more material from Morocco Atlas is needed.

Differential diagnosis. *Nebria blazeji* sp. nov. is similar to *Nebria quezeli* Verdier, 1953 and to *Nebria kocheri* Verdier, 1953. From these species, it differs in the shape of the first antennomere and the chaetotaxy of the ventral part of the body. The first antennomere of *Nebria kocheri* and *Nebria quezeli* is long and conical, while in *Nebria blazeji* it is shorter and more massive (see Fig. 2). The number of setae in metacoxa is 1+1 in *Nebria kocheri* and *Nebria quezeli*, and from 2 to 4+1 in the new species. Number of setae in ventrites is 2+2 in *Nebria*

kocheri and *Nebria quezeli*, and 4-5 + 4-5 in the new species. *Nebria quezeli* has the external intervals of the punctured, but this puncturation is lacking in the new species.

Etymology. Patronymic, named after the second name of one of the collectors of type series - Blažej.

Fig. 4. Type locality of new species.

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REFERENCES

CSIKI E. 1946: *Die Käferfauna des Karpathen-Beckens, 1. Allgemeiner Teil und Caraboidea*. Budapest, 1-796 pp.

LATREILLE P. A. 1802: *Histoire naturelle générale et particulière des Crustacés et des Insectes*, 3. Paris, 1-467 pp.

LEDOUX G. & ROUX P. 2005: *Nebria* (*Coleoptera, Nebriidae*), *Faune mondiale*. Coédition: Muséum (Centre de Conservation et d'Etude des Collections) Lyon et Société Linnéenne de Lyon, 976 pp.

VERDIER P. 1953: Description de deux espèces nouvelles de *Nebria* (Coleoptera, Nebriidae) du Haut-Atlas. *Bulletin de la Société des Sciences Naturelles du Maroc* 31: 273-275.

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