

## A new species of the genus *Brachinus* Weber, 1801 from Syria (Coleoptera: Carabidae: Brachinini)

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**Taxonomy, new species, Coleoptera, Carabidae, Brachinini, *Brachinus*, Palearctic Region, Syria**

**Abstract.** A new species: *Brachinus hajdajorum* sp. nov. from Syria (type locality: Northwestern Syria, Slinfah, East of Latakia) is described and illustrated, including the illustration of the male genitalia of the holotype.

### INTRODUCTION

The last complete revision of the tribe Brachinini was published by Chaudoir (1876). Winkler (1924) catalogued all the species known up to that time. Other authors treated *Brachinus* species in the context of faunal inventories or described new species from more or less broadly defined regions of the East Mediterranean Region: Reiche & Saulcy (1855), Schaum (1858), Putzeys (1875), Apfelbeck (1904), Peyerimhoff (1907), Crotch (1908), Reitter (1919), Liebke (1933), Schatzmayr (1936), Mateu (1956), Jedlička (1958, 1962), Iablokoff-Khznorian (1973), Wrase (2009), Nasir & Katbeh-Bader (2017). A checklist with the distribution of species from the East Mediterranean Region was recently published by Hrdlička (2017).

### MATERIAL AND METHODS

The material examined is housed in the collections listed below:  
cHAJD coll. Evžen & Patrik Hajdaj, Ježov, Czech Republic;  
cHRDL coll. Jan Hrdlička, Babice u Říčan, Czech Republic;  
cWR working collection David W. Wrase, Gusow-Platkow (part of Zoologische Staatssammlung München), Germany.

Photographs of specimens used for descriptions were provided (photographs of general habitus of specimens and photographs of aedeagi were taken with the Canon EOS 600D digital camera with Canon MP-E 65 mm and Canon EF-S 60 mm objectives, images of the same objects at different focal planes were combined by using the Helicon Focus 6.4.3 software). Each paratype has its own number. The label text of type specimens is cited as originally given, separate lines on labels are indicated by „/“, separate labels by „//“. Notes and comments of authors are given in brackets. [p] - the preceding data were printed; [hw] - the same was hand-written.

Measurements of body parts and corresponding abbreviations used in the text are as follows:

- TL total length - measured from the apex of the left mandible (mandibles opened) to the apex of the left elytron;  
DVH dorso-ventral height - maximum dorso-ventral height of the body;  
HL length of head - measured from the clypeus apex to the neck constriction;  
HW width of head - maximum width of the head (including eyes);  
AL antennae length;  
PL pronotal length - length of the pronotum measured along the mid-line;  
PW1 pronotal width 1 - width of the anterior margin of pronotum;  
PW2 pronotal width 2 - maximum width of the pronotum;  
PW3 pronotal width 3 - minimum width of the pronotum;  
PW4 pronotal width 4 - width of the posterior margin of the pronotum;  
EL elytral length - measured from the anterior margin of the scutellum to the posterior margin of the elytra;  
EW elytral width - maximum width of both elytra combined.

PW1/PW2; PW2/PW2; PW3/PW2; PW4/PW2 individual dimensions (PW1, PW3, PW4) are recalculated in relation to PW2 (expresses the curvature of the lateral sides of the pronotum). The location of the PW2 and PW3 of the pronotum are given as a percentage of the PL (calculated from the anterior margin of the pronotum). The location of the EW of the elytra is given as a percentage of the EL (calculated from the anterior margin of the scutellum).

## TAXONOMY

### *Brachinus hajdajorum* sp. nov.

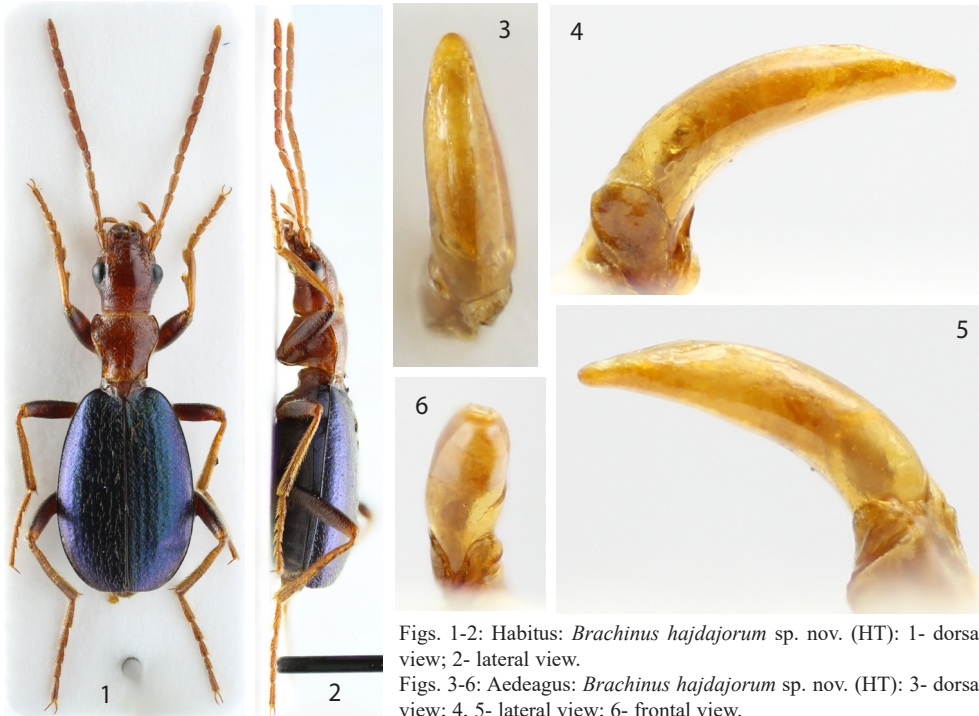
(Figs. 1-6)

**Type material.** Holotype (♂) labelled: „NW Syria / Slinfah (1500m) E Latakia / 26.-29.V.1998 / lgt. E. & P. Hajdaj [p, white label] // HOLOTYPE / *Brachinus* / *hajdajorum* sp. n. / Wrase & Hrdlička des. 2022 [p, red label]“ (cWR). Paratypes nos. 1-16 (7 ♂♂, 9 ♀♀) labelled: with same data as holotype (cHAJ, cHRDL, cWR). Paratype no. 17 (♀) labelled: W Syria Krak de Chevaliers / W Homs / 25.V.1998 / lgt. E. & P. Hajdaj [p, white label] (cWR). Paratype labels in the same way as holotype label, additionally with number of paratype.

**Description of the male holotype.** Habitus (Fig. 1). A medium-sized *Brachinus* (TL 7.33 mm); 2.74 times longer than wide (TL/EW). Body flat (TL/DVH 4.19). Head with antennae, pronotum, and scutellum reddish, elytra blue with metallic shine. Episternum of mesothorax, epimeron of mesothorax, episternum of metathorax, epimeron of metathorax, metathorax, hind coxa, abdominal segments black-brown, femora reddish-brown, and tibia reddish, somewhat infuscated.

Head longer than wide (HL/HW 1.16), wider than pronotum (HW/PW2 1.02). Eyes flat. Head shiny, frontal furrows and neck finely and sparsely irregularly punctate and pubescent with short setae. Antennae long, narrow (TL/AL 1.56). Antennomeres 1-2 with scattered long setae, 3-11 densely pubescent with short setae and scattered longer setae.

Pronotum transverse (PL/PW2 0.93). PL 1.25 mm, PW1 1.10 mm, PW2 (at the 23% of



Figs. 1-2: Habitus: *Brachinus hajdajorum* sp. nov. (HT): 1- dorsal view; 2- lateral view.

Figs. 3-6: Aedeagus: *Brachinus hajdajorum* sp. nov. (HT): 3- dorsal view; 4, 5- lateral view; 6- frontal view.

PL) 1.35 mm, PW3 (at the 79% of PL) 0.90 mm, PW4 0.95 mm. Lateral margins strongly sinuate (PW1/PW2; PW2/PW2; PW3/PW2; PW4/PW2 0.81; 1; 0.67; 0.70). Disc convex, shiny, anterior and posterior margin wrinkled, coarsely and sparsely regularly punctate and pubescent by long yellow setae. Lateral groove poorly visible, with a setiferous puncture at about middle. Posterior angles of pronotum rectangular, slightly rounded at tip. Basal margin with a fringe of short hairs. Episterna of prothorax and pronotal epipleura smooth and shiny.

Scutellum with microsculpture, without punctuation.

Elytra 1.59 times longer than wide (EL/EW). Elytra widest somewhat behind the middle, approximately at the level of the end of the basal 58 % of EL. Elytra only moderately shiny due to strong microsculpture, formed by isodiametric meshes. Humeri absent. Each elytron with about six weakly defined costae, the sides almost smooth. All elytra sparsely and regularly punctured and covered with yellow hairs of medium length. Posterior margin of elytra with membranous fringe without setae.

Hind wings reduced to about half of EL, metepisterna about twice as long as wide at the front edge.

Male genitalia (Figs. 3-6). Median lobe of aedeagus long, narrow and conical. The short apical part is dorsoventrally flattened, the tip rounded.

**Variability.** TL 6.25-7.75 (aver. 6.95) mm (18 specimens measured). Coloration of body not variable, besides the darkening of the femora, which is somewhat variable in intensity, the

tibiae may also be more or less slightly darkened in some specimens. Shape of aedeagus not variable.

**Differential diagnosis.** *Brachinus hajdajorum* sp. nov. is similar to *B. brevicollis* Motschulsky, 1844. But this species differs from the new one by clearly larger body dimensions, clearly developed humeri, more densely punctate elytra, clearly denser setosity of the elytra, by clearly lightened metasternum and metepisterna, unicoloured light legs, and by the median lobe which is significantly broadened behind the basal part.

**Biology.** Unknown.

**Name derivation.** This species is dedicated to its collectors Evžen & Patrik Hajdaj from Ježov, Czech Republic.

**Distribution.** Currently known from the governorates of Latakia and Homs in north-western Syria only.

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## REFERENCES

- APFELBECK V. 1904: *Die Käferfauna der Balkanhalbinsel, mit Berücksichtigung Klein-Asien und der Insel Kreta. Erster Band. Familienreihe Caraboidea*. Berlin: R. Friedländer und Sohn, ix + 422 pp.
- CHAUDOIR M. DE. 1876: Monographie des brachynides. *Annales de la Société Entomologique de Belgique* 19: 11-104.
- CROTCH G. R. 1908: Coléoptères du Sinai. *L'Abeille, Journal d'Entomologie* 31(2): 49-55.
- HRDLIČKA J. 2017: Brachininae. Pp. 471-480. In: LÖBL I. & LÖBL D. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 1. Archostemata - Myxophaga - Adephaga. Revised and Updated Edition*. Leiden/Boston: Brill, xxxiv + 1443 pp.
- IABLOKOFF-KHNZORIAN S. M. 1973: Les Brachininae du Caucase (Col. Carabidae). *Annales de la Société Entomologique de France (N.S.)* 9(3): 679-692.
- JEDLIČKA A. 1958: Příspěvek k poznání palaearktických střevlíků. Beitrag zur Kenntnis der palaearktischen Carabiden (Coleoptera). *Sborník Entomologického Oddělení Národního Musea v Praze* 32: 223-246.
- JEDLIČKA A. 1962: Neue Carabiden aus Anatolien und Dagestan (Col.). *Reichenbachia*, Bd. 1, Nr. 12, Dresden: 61-68.
- LIEBKE M. 1933: Zwei neue *Brachinus*-Arten (Col., Carabidae) aus dem Morgenlande. *Stylops* 2(8): 185-186.
- MATEU J. 1956: Mission H. Coiffait al Líbano. Lebiidae y Brachinidae (Col. carabidos). *Archivos del Instituto de Aclimatación, Almería* 5: 33-51.
- NASIR W. M. & KATBEH-BADER A. 2017: Annotated checklist of ground beetles (Coleoptera: Carabidae) of Jordan. *Zoology and Ecology* 27(3-4): 269-291.
- PEYERIMHOFF P. 1907: Liste des coléoptères du Sinai. *L'Abeille, Journal d'Entomologie* 31(5): 1-48.
- PUTZEYS J. A. A. H. 1875: In: PTOCHARD DE LA BRÛLERIE C. J. & SAULCY F.: *Catalogue raisonné des Coléoptères de la Syrie et de l'île de Chypre. Annales de la Société Entomologique de France* 5, 5-e Série: 97-160.
- REICHE L. & SAULCY F. 1855: Espèces nouvelles ou peu connues de coléoptères, recueillies par M. F. de Saulcy, membre de l'Institut, dans son voyage en Orient, et décrites par M. M. L. Reiche et Félicien de Saulcy. *Annales de la Société Entomologique de France* 3(3): 561-645 + 1 pl.
- REITTER E. 1919: Bestimmungstabelle der Brachyninae (Col. Carabidae) aus Europa und den angrenzenden Ländern. *Entomologische Blätter* 15(7-9): 129-146.

- SCHATZMAYR A. 1936: Risultati scientifici della spedizione entomologica di S.A.S. il Principe Alessandro della Torre e Tasso in Egitto e nella penisola del Sinai, XII. *Catalogo regionato dei Carabidi finora noti d'Egitto e del Sinai*. Pubblicazioni del Museo Entomologico „Pietro Rossi“, Duino 1: 1-114.
- SCHAUM H. R. 1858: Beiträge zur Käferfauna Syriens. 1. Stück: Cicindelidae, Carabici, Dytiscidae, Gyrinidae. *Wiener Entomologische Monatschrift* 2(6): 262-277.
- WINKLER A. 1924: Carabidae. Brachyninae. Pp. 211-214. In: *Catalogus Coleopterorum Regionis Palaearcticae*. [1924-32]. Wien: A. Winkler ed., viii + 1698 pp.
- WRASE D. W. 2009: New or interesting records of Carabid beetles from Europe, Madeira, northern Africa, Turkey, from the Near East, Iran, Iraq, Kuwait, and Pakistan, with nomenclatorial and taxonomic notes (Coleoptera, Carabidae, Bembidiini, Brachinini, Cyclosomini, Elaphrini, Harpalini, Lebiini, Nebrini, Platynini, Pterostichini, Scaritini, Sphodrini, Zabryni). *Linzer Biologische Beiträge* 41(1): 901-935.

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