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Amara (*Amara*) *bibula* Antoine, 1945 (Coleoptera: Carabidae) – a valid species

Amara (*Amara*) *bibula* Antoine, 1945 (Coleoptera: Carabidae) – validní druh

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Taxonomy, status restitutus, Coleoptera, Carabidae, Zabrini, Palaearctic region, Morocco

Abstract. In this article, the valid species status of *Amara* (*Amara*) *bibula* Antoine, 1945 is restored. A lectotype and two paralectotypes are designated here. The species occurs at altitudes of 1800–3000 m a.s.l. in the High and Middle Atlas in central Morocco.

INTRODUCTION

Eight species of the nominotypical subgenus of the genus *Amara* Bonelli, 1810 are known from Morocco (Hieke 2017): *A.* (*A.*) *aenea* (De Geer, 1774), *A.* (*A.*) *anthobia* A. Villa & G. B. Villa, 1833, *A.* (*A.*) *eurynota* (Panzer, 1796), *A.* (*A.*) *famelica* C. Zimmermann, 1832, *A.* (*A.*) *familiaris* (Duftschmid, 1812), *A.* (*A.*) *lucida* (Duftschmid, 1812), *A.* (*A.*) *similata* (Gyllenhal, 1810), and *A.* (*A.*) *subconvexa* Putzeys, 1865.

Maurice Antoine described *A.* (*A.*) *bibula* from the High and Middle Atlas in Morocco in 1945. This taxon was synonymized with *A.* (*A.*) *famelica* by Hieke (1973). The name "*bibula*" is given as junior synonym of "*famelica*" in the current Palaearctic catalogue (Hieke 2017).

MATERIAL AND METHODS

101 specimens of *Amara* (*A.*) *bibula* and 268 of *A.* (*A.*) *famelica* were studied. The specimens of *A.* (*A.*) *bibula* are deposited in the following collections: HEJ – coll. J. Hejkal, Kraslice, Czech Republic; JEL – coll. J. Jelínek, Chloumek, environs of Choceň, Czech Republic; MNB – Museum für Naturkunde Berlin, Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Berlin, Germany (J. Frisch and B. Jaeger); MNHN – Muséum national d'Histoire naturelle, Paris, France (T. Deuve and A. Taghavian); ORS – coll. K. Orszulik, Frýdek-Místek, Czech Republic; WRA – coll. D. W. Wrase, Gusow-Platkow, Germany; ZIE – coll. V. Zieris, Pardubice, Czech Republic.

Measurements were made using an MBS-10 stereo microscope at magnifications of 8× to 56×. Measurements of body parts and body ratios used in the text were taken as follows: total length = length measured from anterior margin of labrum to elytral apices; length of median lobe (penis) = length of median lobe in dorsal view; width of median lobe (penis) = maximal width of median lobe in dorsal view; ratio of width/length of pronotum = ratio of maximal width of pronotum/length of pronotum measured along mid-line; ratio of length/width of elytra = ratio of length of longer elytron measured from basal border to apex/maximal width of both elytra combined; ratio of length of elytra/length of pronotum = length of longer elytron measured from basal border to apex/ length of pronotum measured along mid-line; ratio of length/width of apex of median lobe (apex of penis) = ratio of length of apex measured from apical border of internal sac to tip of median lobe/ maximal width of apex in dorsal view.

TAXONOMIC PART

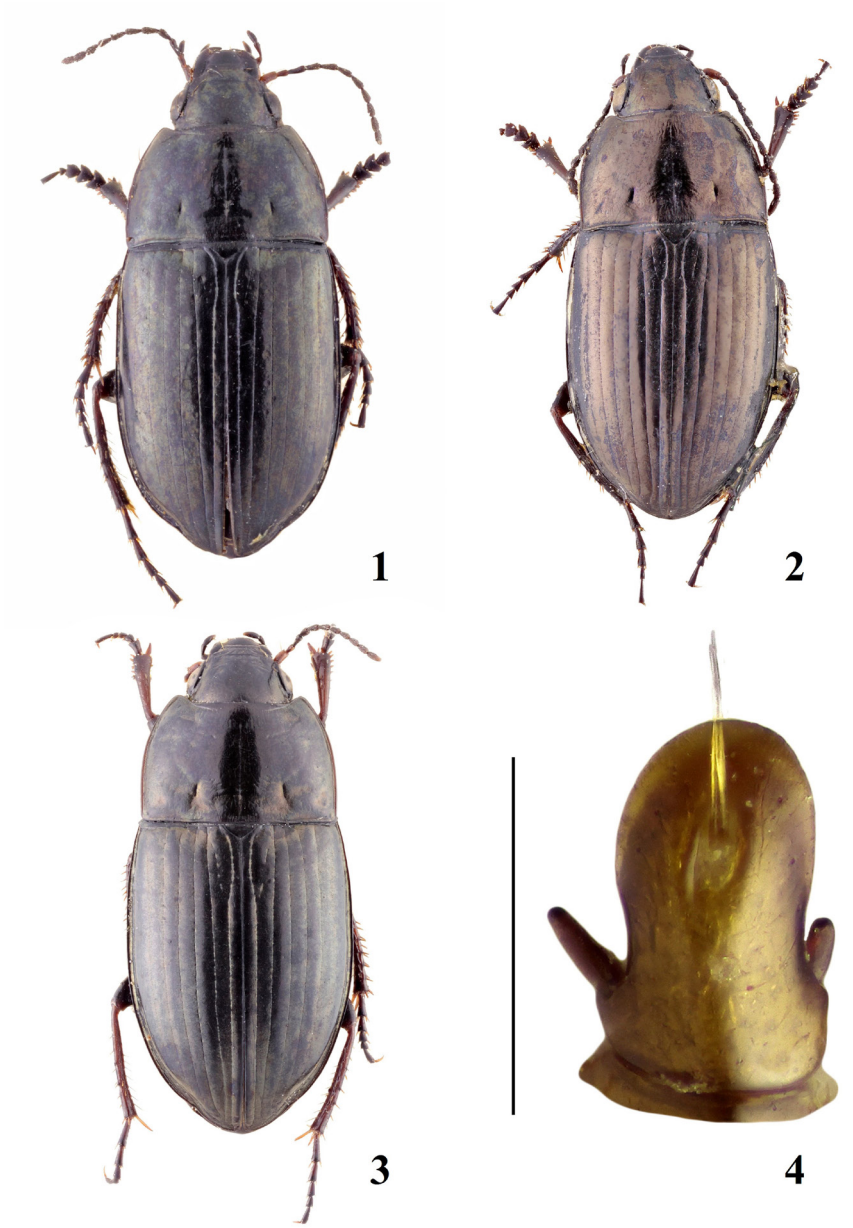
Amara (*Amara*) *bibula* Antoine, 1945, stat. rest.
(Figs 1–6)

Amara bibula Antoine, 1945: 52.
Amara (s. str.) *bibula*: Antoine, 1957: 281 (subgeneric placement); Hieke, 1973: 15 (as junior subjective synonym of *A.* (*A.*) *famelica* C. Zimmermann, 1832).

Type locality. Central Morocco, the central part of High Atlas, Lac de Isli lake [ca. 32°13´N, 5°32–33´W] (see remark below).
Type material examined. Lectotype (here designated): ♂, labelled "Maroc, lac Islite (Plateau des lacs), VI. 42, Antoine", "TYPE" (red handwritten label most likely attached by Antoine himself), "bibula m. Antoine det.", "vid. det. F.Hieke 1969", "= Amara (s.str.) famelica Zim. det. F. Hieke 1975", "HOLOTYPE" (red printed label not attached by Antoine) and "LECTOTYPE, Amara (Amara) bibula Antoine, 1945, J. Hejkal des. 2018" (red printed label), coll. MNHN. Paralectotypes: No 1, ♂, labelled "Maroc, M. At., lac Sidi Ali, 2000, III, Antoine", "A. bibula Ant Antoine det.", "cotype" (red handwritten label most likely attached by Antoine himself) and "PARALECTOTYPE No 1, Amara (Amara) bibula Antoine, 1945, J. Hejkal des. 2018" (red printed label), coll. MNHN; No 2, ♀, labelled "Maroc, M. At., lac Sidi Ali, 2000, VI. 44, Antoine", "allotype" (red handwritten label most likely attached by Antoine himself) and "PARALECTOTYPE No 2, Amara (Amara) bibula Antoine, 1945, J. Hejkal des. 2018" (red printed label), coll. MNHN.
Remarks. Maurice Antoine did not indicate a holotype in the type series. The syntypes originate from several localities (see above). For that reason, a lectotype and paralectotypes are designated in this study in order to clarify the status of the type material and to delimit a type locality.

The lectotype of *A. bibula* is lacking two tarsomeres of the right anterior leg and right hind tarsus (Fig. 1). The hook on the right paramere of the lectotype is broken.

Five more paralectotypes deposited in MNHN (Thierry Deuve, pers. comm.) were not studied by the author.
Additional material examined. 2 ♀♀, labelled "Gr.-Atlas, Plateau des Lacs, Lac Tislite, 2400 m., 14.6.42, H. Otin" and "Amara (Amara) famelica Zimm., det. Hieke 2013", coll. MNB; 1 ♀, labelled "Maroc, M. At., Lac Sidi Ali, 2000, VI.44, Antoine" and "Amara bibula Ant, Kocher det. 62", coll. MNB; 1 ♂, 3 ♀♀, labelled "Moy.-Atlas, Aguelmane Sidi Ali, Alt. 2000, 11.7.44, Otin leg." and "Amara (Amara) famelica Zimm., det. Hieke 2013", coll. MNB; 4 ♂♂, 3 ♀♀, labelled "Moy.-Atlas, Aguelmane Sidi Ali, Alt. 2000, 18.7.44, Otin leg." and "Amara (Amara) famelica Zimm., det. Hieke 2013" (3/2), coll. MNB; 1 ♂, 1 ♀, labelled "Aguelmane Sidi Ali, V.54, A. BAUDON", "A terre" (illegible handwriting), "Amara bibula" and "Amara (Amara) famelica Zimm., det. Hieke 2013", coll. MNB; 1 ♂, labelled "Mar. (Ht. Atlas) s.Marrakech: Oukaïmeden, 2700–2900 m, 2.XII.1987, Heinz leg.", coll. MNB; 1 ♂, labelled "Marokko 12., Haut Atlas, Oukaimeden, 2600–2900m, 15.4.1988, M. Baehr", coll. MNB; 1 ♂, labelled "MAROCCO – Alto Atlante, dint. Oukaimeden, m.2700, 04/11. VI.1999, leg. D.GIANASSO" and "Amara (Amara) famelica Zimm., det. Hieke 2013", coll. MNB; 1 ♂, 1 ♀, labelled "MOROCCO (Marrakesch-Tensift-El Haouz: Marrakesch), Haut Atlas, Oukaïmeden env., N.side of Adrar mts., 31.12.252N/07.51.724W, 2200–3000 m, (scree, stones), 11.–14.IV.2009, P.Croy" and "Amara (Amara) famelica Zimm., det. Hieke



Figs 1–4. *Amara bibula* Antoine, 1945. 1–3: habitus, dorsal view; 4: stylus, terminal stylomere, ventral view. 1: lectotype, male, body length 7.1 mm; 2: paralectotype No 1, male, body length 6.3 mm; 3: paralectotype No 2, female, body length 7.2 mm; 4: central Morocco, Oukaïmeden, coll. J. Hejkal. Scale: 0.28 mm for Fig. 4.
Obr. 1–4. *Amara bibula* Antoine, 1945. 1–3: habitus, dorsální pohled; 4: stylus, koncový článek, ventrální pohled. 1: lektoptyp, samec, délka těla 7,1 mm; 2: paralektotyp č. 1, samec, délka těla 6,3 mm; 3: paralektotyp č. 2, samice, délka těla 7,2 mm; 4: střední Maroko, Oukaïmeden, coll. J. Hejkal. Měřítko: 0,28 mm pro obr. 4.

2015", coll. WRA; 1 ♀, labelled "Morocco, Oukaïmeden env., N 31°11,715, W 07°51,383, 19.4.2012, V.Zieris lgt.", coll. ZIE; 1 ♀, labelled "Morocco, Oukaimeden env., N 31°11.02´, W 07°50.88´, ca. 2700m, 4.vi.2014, V.Zieris lgt.", coll. HEJ; 4 ♂♂, 9 ♀♀, labelled "MOROCCO c., Al-Atlas al-Kebir Mts., Oukaimeden env., ca.2650-2755, 4.-5.6.2014, V.Zieris lgt.", coll. ZIE; 13 ♂♂, 23 ♀♀, labelled "Morocco c., Oukaimeden env., N 31°11.02´, W 07°50.88´, ca. 2700m, 5.vi.2014, J.Hejkal lgt.", coll. HEJ; 1 ♀, labelled "Morocco c., Oukaimeden env., N 31°11.02´, W 07°50.88´, ca. 2700m, 5.vi.2014, Jelínek Jar. lgt.", coll. JEL; 8 ♂♂, 17 ♀♀, labelled "Morocco, Al-Atlas al-Kabir Mts, Oukaimeden env., 2700m, 5.6.2014, lgt.Orszulik", coll. HEJ (2 ♀♀) and coll. ORS (8 ♂♂, 15 ♀♀).

Redescription. Macropterous species related to *A.* (*A.*) *famelica* C. Zimmermann, 1832, with relatively short elytra (Figs 1–3). Total length 5.7–7.7 mm (lectotype 7.1 mm, average 6.7 mm, *n* = 101). Dorsal side metallic, mostly violet-green or green-violet (to almost black), in some specimens green-brown, brown or copper. Dorsal side with slight lustre, female elytra with slight lustre to almost dull. Ventral side dark brown. Antennae dark brown, antennomere 1 brown-red, antennomere 2 mostly dark brown, in some specimens brown-red. Maxillary and labial palpi dark brown. Femora and tarsi brown, tibiae red-brown to brown.

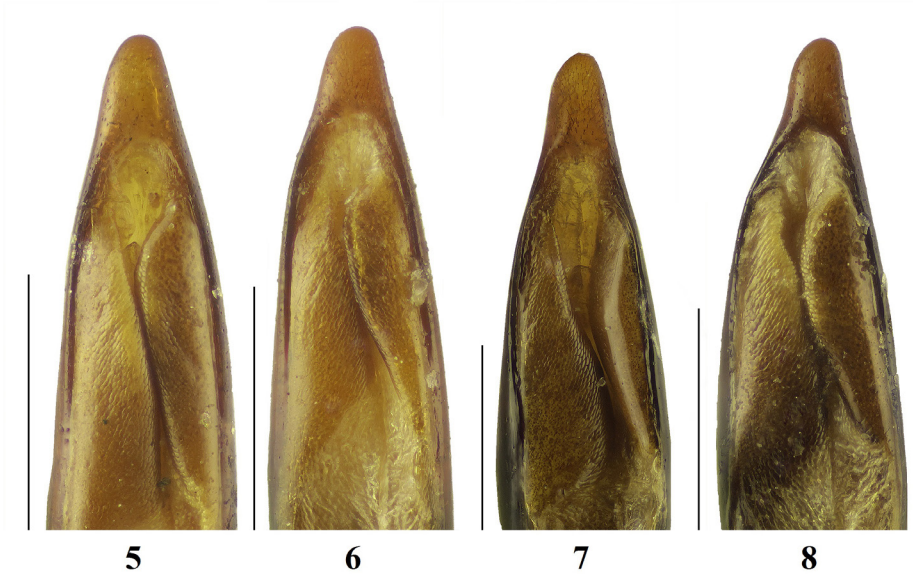
Head with very slightly convex eyes. Anterior part of clypeus without callus or with only suggested convexity. Frontal furrows variable, mostly almost absent or shallow, in some specimens moderately deepened. Antennae short, not or hardly reaching base of pronotum when reclined. Mentum with bifid median tooth.

Pronotum transverse (ratio of width/length = 1.62–1.74, lectotype 1.69), relatively large (ratio of length of elytra/length of pronotum = 2.59–2.75, lectotype 2.69), strongly convex, trapezoid, widest mostly on its base, in some specimens at posterior sixth. Anterior margin of pronotum deeply emarginate, anterior angles acute. Posterior angles mostly rectangular, in some specimens slightly obtuse or slightly acute, with apex shortly rounded or almost acute, pronotal base slightly sinuate toward posterior angles. Inner basal impression shallow or almost absent, with short longitudinal median groove. Outer basal impression shallow or absent. Pronotal base impunctate. Setiferous puncture at pronotal posterior angle touching widened lateral bead posteriorly or separated from lateral bed by a distance smaller than the width of a setiferous puncture.

Elytra short (ratio of length/width = 1.38–1.45, lectotype 1.42), declivity of elytra before apex gentle to steep (lateral view). Striae fine and mostly superficial, not deepened and widened apicad, finely punctate. Row of setiferous punctures in stria 8 mostly shortly interrupted. Stria 7 with two distinct setiferous punctures before apex. Scutellar stria fine, continuous or interrupted, usually not touching stria 1. Scutellar setiferous puncture absent. Basal margination slightly arcuate, basal bead slightly sinuate. Humeral tooth distinct. Microsculpture of regular meshes, slightly coarser in females.

Episternum of prothorax very sparsely and finely punctate. Episternum of mesothorax very sparsely and finely to coarsely punctate. Episternum of metathorax very sparsely and finely punctate, longer than wide. Sides of abdominal ventrites 1 to 6 almost smooth or very sparsely and finely to coarsely punctate. Abdominal ventrites 1 to 5 with one pair of setiferous punctures. Males with two, females with four setiferous punctures apically at last abdominal ventrite (five in one female specimen).

Tarsomeres 1-3 of male protarsi very markedly enlarged. Inner side of male mesotibiae with only sparse row of spines (posterior 2/3 to 3/4 of mesotibia length). Inner side of male



Figs 5–8. *Amara* spp. Aedeagus: median lobe (dorso-apical view). 5, 6: *A. bibula* Antoine, 1945 (5: lectotype; 6: central Morocco, Oukaïmeden, coll. J. Hejkal). 7, 8: *A. famelica* C. Zimmermann, 1832 (7: western Bohemia, Krásno near Horní Slavkov, coll. J. Hejkal; 8: central Portugal, Serra da Estrela Mountains, Estrela Torre Mt., coll. J. Hejkal). Scale: 0.4 mm.

Obr. 5–8. *Amara* spp. Aedeagus: penis (dorsoapikální pohled). 5, 6: *A. bibula* Antoine, 1945 (5: lektotyp; 6: střední Maroko, Oukaïmeden, coll. J. Hejkal). 7, 8: *A. famelica* C. Zimmermann, 1832 (7: západní Čechy, Krásno u Horního Slavkova, coll. J. Hejkal; 8: střední Portugalsko, pohoří Serra da Estrela, hora Estrela Torre, coll. J. Hejkal). Měřítko: 0,4 mm.

metatibiae with dense row of setae (posterior 1/2 of metatibia length) and sparse row of spines (posterior 2/3 to 3/4 of metatibia length).

Aedeagus (Figs 5 and 6). Length of median lobe 1.78–1.98 mm (lectotype 1.93), width of median lobe (dorsal view) 0.28–0.33 mm (lectotype 0.28 mm). Apex of median lobe broad and relatively short in comparison with *A. famelica* (ratio of length/width of apex of median lobe = 1.06–1.19, lectotype 1.16). Right paramere with distinct hook. Internal sac of median lobe without sclerotized structures, but with several membranes.

Styli tongue-shaped, with long, broad lateral spurs (Fig. 4).

Status. Hieke (1973: 15) stated that *A.* (*A.*) *bibula* is a junior synonym of *A.* (*A.*) *famelica*, basing the decision on the "remarkable similarity" of these two taxa, including in the shape of the apex of the median lobe, and on zoogeographical grounds. The two species are undoubtedly closely related, but there are some differences available to distinguish them. I treat *A. bibula* as a distinct species.

Differential diagnosis. *Amara* (*A.*) *bibula* belongs to the group of species of the nominotypical subgenus of the genus *Amara* with elytral striae not deepened and widened apicad, and antennomere 3 entirely dark brown or black-brown dorsally. This species group includes the following 13 taxa in the Palaearctic region: *A.* (*A.*) *aeneola* Poppius, 1906, *A.* (*A.*) *bamidunyae* Bates, 1878, *A.* (*A.*) *biarticulata* Motschulsky, 1844, *A.* (*A.*) *bibula*, *A.* (*A.*) *depressangula*



Fig. 9. Habitat of *Amara bibula* in the Oukaïmeden locality with torn growth of miner's lettuce *Montia arvensis*, 5.vi.2014. Photograph by J. Hejkal.
Obr. 9. Biotop *Amara bibula* na lokalitě Oukaïmeden s vytrhaným porostem zdrojovky rolní (*Montia arvensis*), 5.VI.2014. Fotografie J. Hejkal.

Poppius, 1908, *A.* (*A.*) *famelica*, *A.* (*A.*) *kingdoni* Baliani, 1934, *A.* (*A.*) *kingdonoides* Hieke, 2002, *A.* (*A.*) *morio morio* Ménétriés, 1832, *A.* (*A.*) *m. nivium* Tschitschérine, 1900, *A.* (*A.*) *petrimontii* Hieke, 1995, *A.* (*A.*) *robusta* Baliani, 1932, and *A.* (*A.*) *spreta* Dejean, 1831. *Amara* (*A.*) *bibula* is distinguishable from all closely related species by the relatively short apex of the median lobe (ratio 1.06–1.19). The ratio of length/width of the apex of the median lobe of related species varies between 1.25 and 3.0 (ratio mostly 2.0–3.0).

Amara (*A.*) *bibula* is most closely related to *A.* (*A.*) *famelica*, with which it shares number of characters (antennomere 2 mostly dark brown, apex of median lobe relatively short, shape of the pronotum). *Amara* (*A.*) *bibula* differs from *A.* (*A.*) *famelica* in having a distinct appearance (*A.* (*A.*) *bibula* is similar to *A.* (*A.*) *curta* Dejean, 1828 or small specimens of *A.* (*A.*) *littorea* C.G. Thomson, 1857, while *A.* (*A.*) *famelica* is similar to *A.* (*A.*) *aenea*), even shorter apex of median lobe, shorter elytra, and steeper declivity of elytra before apex. The average size of *A.* (*A.*) *bibula* (6.7 mm) is smaller in comparison with *A.* (*A.*) *famelica* (7.6 mm).

The remaining related species distributed in the Western Palaearctic (*A.* (*A.*) *morio morio*, *A.* (*A.*) *m. nivium*, and *A.* (*A.*) *spreta*) are easily recognisable from *A.* (*A.*) *bibula* by the paler antennomere 2 and the elongate apex of median lobe (ratio usually more than 2.0).



Fig. 10. Uprooted plant of *Montia arvensis* (miner's lettuce) in the Oukaïmeden locality, 5.vi.2014. Photograph by J. Hejkal.
Obr. 10. Vytrhaný porost zdrojovky rolní (*Montia arvensis*) na lokalitě Oukaïmeden, 5.VI.2014. Fotografie J. Hejkal.

Distribution and habitat. *Amara* (*A.*) *bibula* is known from the High Atlas (Lac de Isli and Lac de Tislit lakes, Oukaïmeden) and the Middle Atlas (Aguelmame de Sidi-Ali lake, Dayet Ifrah lake) in central Morocco (Antoine 1945). It occurs at altitudes of 1800–3000 m a.s.l. (Antoine 1957). The individuals from Oukaïmeden village were collected in the valley of a montane brook in an overgrown and dried-up streambed. They were found in moist soil under plants of *Montia arvensis* Wallr. (Figs 9 and 10), together with *Agonum atlantis* Antoine, 1957, *Amara* (*A.*) *aenea*, *Bembidion bipunctatum laevifrons* Schaufuss, 1882 and *B. dudichi* Csiki, 1928. The specimens of *Amara* (*A.*) *bibula* were found in large numbers (see also Antoine 1957).

Amara (*Amara*) *famelica* C. Zimmermann, 1832
(Figs 7, 8, 11)

Amara (*Amara*) *famelica* C. Zimmermann, 1832: 36 (see Hieke 2012: 19 (catalogue)).

Type locality. Mittleres Deutschland, Polen und Russland [central Germany, Poland and Russia] (see Hieke 2012)
Material examined. 268 specimens from the Czech Republic, Georgia, Iran, Kazakhstan, Portugal, Russia (East Siberia), Slovakia and Turkey.

Redescription. Macropterous species (Fig. 11). Total length 6.5–8.5 mm (average 7.6 mm, *n* = 220). Dorsal side metallic, mostly copper or brown, in some specimens green-brown, brown-green, green-violet, brown-violet (to almost black). Head, pronotum and male elytra mostly shiny, female elytra with slight lustre. Ventral side dark brown. Antennae dark brown, antennomere 1 brown-red, antennomere 2 mostly dark brown, in some specimens brown-red. Maxillary and labial palpi dark brown. Legs brown to dark brown.

Head with very slightly convex eyes. Anterior part of clypeus without callus or with only suggested convexity. Frontal furrows shallow or moderately deepened, short. Antennae short, mostly reaching base of pronotum when reclined. Mentum with bifid median tooth.

Pronotum transverse (ratio of width/length = 1.66–1.73), relatively small (ratio of length of elytra/length of pronotum = 2.72–2.95), strongly convex, trapezoid, widest mostly on its base, in some specimens at posterior sixth. Anterior margin of pronotum deeply emarginate, anterior angles acute (in some specimens from southwestern Georgia, northwestern Iran and northeastern Turkey anterior margin of pronotum almost shallowly emarginate and anterior angles rounded). Posterior angles mostly rectangular, in some specimens slightly obtuse or slightly acute, with apex shortly rounded or almost acute, pronotal base at most slightly sinuate toward posterior angles. Inner basal impression shallow or almost absent, with short longitudinal median groove. Outer basal impression shallow or moderately deepened. Pronotal base impunctate or sparsely punctate. Setiferous puncture at pronotal posterior angle touching widened lateral bead posteriorly or separated from lateral bed by a distance smaller than the width of a setiferous puncture.

Elytra short to elongate (ratio of length/width = 1.44–1.55), declivity of elytra before apex gentle (lateral view). Striae fine, not deepened and widened apicad, finely punctate. Row of setiferous punctures in stria 8 shortly interrupted, in some specimens (mostly unilaterally) not interrupted. Stria 7 with two distinct setiferous punctures before apex. Scutellar stria fine, interrupted or continuous, not touching stria 1. Scutellar setiferous puncture absent. Basal margination slightly arcuate, basal bead slightly sinuate. Humeral tooth distinct. Microsculpture of regular meshes, slightly coarser in females.

Episternum of prothorax very sparsely and finely punctate. Episternum of mesothorax sparsely and finely to coarsely punctate. Episternum of metathorax almost smooth, longer than wide. Sides of abdominal ventrites 1 to 6 almost smooth or very sparsely and finely to coarsely punctate. Abdominal ventrites 1 to 5 with one pair of setiferous punctures. Males with two (in some males three), females with four setiferous punctures apically at last abdominal ventrite (in some females three or five).

Tarsomeres 1-3 of male protarsi very markedly enlarged. Inner side of male mesotibiae with only sparse row of spines (posterior 2/3 to 4/5 of mesotibia length). Inner side of male metatibiae with dense row of setae (posterior 1/2 of metatibia length) and sparse row of spines (posterior 3/4 to 4/5 of metatibia length).

Aedeagus (Figs 7–8). Length of median lobe 1.90–2.13 mm, width of median lobe (dorsal view) 0.30–0.40 mm. Apex of median lobe relatively long in comparison with *A.* (*A.*) *bibula* (ratio of length/width of apex of median lobe = 1.25–1.45). Right paramere with distinct hook.

Styli tongue-shaped, with short or long and broad lateral spurs.

Note. The appearance of some specimens from southwestern Georgia, northwestern Iran and northeastern Turkey is different from that of the rest of population. *A.* (*A.*) *famelica* may in fact be a polytypic species.



Fig. 11. *Amara famelica* C. Zimmermann, 1832. Habitus, dorsal view. Male, body length 7.2 mm, western Bohemia, Krásno near Horní Slavkov, coll. J. Hejkal.
Obr. 11. *Amara famelica* C. Zimmermann, 1832. Habitus, dorsální pohled. Samec, délka těla 7,2 mm, západní Čechy, Krásno u Horního Slavkova, coll. J. Hejkal.

Differential diagnosis. *Amara* (*A.*) *famelica* is most closely related to *A.* (*A.*) *bibula* (for differences, see above). It differs from the majority of related species (*A.* (*A.*) *aeneola*, *A.* (*A.*) *bamidunyae*, *A.* (*A.*) *biarticulata*, *A.* (*A.*) *depressangula*, *A.* (*A.*) *kingdoni*, *A.* (*A.*) *morio morio*, *A.* (*A.*) *m. nivium*, *A.* (*A.*) *robusta*, and *A.* (*A.*) *spreta*) in having the apex of the median lobe considerably shorter (ratio 1.25–1.45). Ratio of length/width of apex of median lobe of these species varies between 2.0 and 3.0. *Amara* (*A.*) *kingdonoides* from the Far East differs in having paler (red-brown) tibiae and a longer apex of the median lobe (Hieke 2002). *Amara* (*A.*) *petrimontii* from Tajikistan differs in having a mostly blue, green-blue or blue-green upper surface, large and very strongly convex pronotum, and a paler antennomere 2.
Distribution. *Amara* (*A.*) *famelica* is known from the Palaearctic region, from Portugal to the Russian Far East (Hieke 2017). The geographical symbol "MO" (Morocco) given in the Palaearctic Catalogue refers to *A.* (*A.*) *bibula*.

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SOUHRN

Druh *Amara* (*Amara*) *bibula* Antoine, 1945 byl popsán ze středního Maroka z Vysokého a Středního Atlasu z nadmořských výšek 1800–3000 m. Později byl tento druh synonymizován s palearktickým druhem *A.* (*A.*) *famelica* C. Zimmermann, 1832 na základě „mimořádné podobnosti" těchto dvou taxonů včetně tvaru penisu a dále na základě zoogeografické úvahy (Hieke 1973).

Druhy *A.* (*A.*) *bibula* a *A.* (*A.*) *famelica* jsou nepochybně blízce příbuzné. Společně sdílí několik znaků, zejména ztmavlý druhý článek tykadel, neprohloubené a nerozšířené rýhy před koncem krovek, relativně krátkou špici aedeagu (ve srovnání s dalšími příbuznými druhy)

a podobný tvar štítu. *Amara* (*A.*) *bibula* se liší od *A.* (*A.*) *famelica* rozdílným vzhledem (*A.* (*A.*) *bibula* je druh podobný *A.* (*A.*) *curta* Dejean, 1828 nebo malým jedincům *A.* (*A.*) *littorea* C. G. Thomson, 1857; *A.* (*A.*) *famelica* je druh podobný *A.* (*A.*) *aenea* (De Geer, 1774)), ještě kratší špicí aedeagu, kratšími krovkami a zpravidla příkřejším sklonem krovek před jejich koncem. Průměrná velikost *A.* (*A.*) *bibula* (6,7 mm) je menší ve srovnání s *A.* (*A.*) *famelica* (7,6 mm).

V článku je obnoveno druhové postavení *A.* (*A.*) *bibula*. Vzhledem ke skutečnosti, že Antoine neoznačil v typové sérii holotyp, byly v této práci designovány lektotyp a dva paralektotypy. Současně byla zúžena typová lokalita, protože exempláře původní syntypové série pocházejí z různých míst.

Geografický symbol „MO“ (Maroko) uvedený pro *A.* (*A.*) *famelica* v posledním vydaném palearktickém katalogu (Hieke 2017) tedy patří *A.* (*A.*) *bibula*.