FOLIA ENTOMOLOGICA HUNGARICA
ROVARTANI KÖZLEMÉNYEK
Volume 82 2021 pp. 7–22
ISSN 0373-9465 (print) ISSN 2786-2798 (online)
published: 12 October 2021

New species and records of Afrotropical Campopleginae II. (Hymenoptera: Ichneumonidae)

Zoltán Vas[1]* & Filippo Di Giovanni[2]

[1] *Hungarian Natural History Museum, Department of Zoology, Hymenoptera Collection, H-1088 Budapest, Baross utca 13, Hungary. E-mail: vas.zoltan@nhmus.hu*
[2] *University of Pisa, Department of Agriculture, Food and Environment, 56124 Pisa, via del Borghetto 80, Italy. E-mail: aphelocheirus@gmail.com*

Abstract – Four new Afrotropical ichneumon wasp species are described: *Casinaria caliginea* Vas, sp. n. and *Casinaria corvina* Vas, sp. n. from Burundi, *Dusona nigrescens* Vas, sp. n. and *Dusona solinervosa* Vas, sp. n. from Uganda. *Dusona elegans* (Szépligeti, 1908) is first reported from Uganda, and the hitherto unknown female is described.

Key words – *Casinaria*, *Dusona*, species description, *Dusona elegans*

INTRODUCTION

In the Ichneumonidae material described in the previous part of this paper (Vas & Di Giovanni 2020) further new species and new faunistical records were found. Four new species are described: *Casinaria caliginea* Vas, sp. n. and *Casinaria corvina* Vas, sp. n. from Burundi, *Dusona nigrescens* Vas, sp. n. and *Dusona solinervosa* Vas, sp. n. from Uganda; additionally, *Dusona elegans* (Szépligeti, 1908) is first reported from Uganda with the description of the hitherto unknown female sex of the species.

Ichneumonidae taxonomy and nomenclature follow Yu & Horstmann (1997) and Yu *et al*. (2016). Morphological terminology follows Gauld (1991) and Gauld *et al*. (1997); however, in the cases of wing veins the corresponding terminology of Townes (1969) is also indicated. The material is deposited partly in the Hungarian Natural History Museum (HNHM, Budapest), partly in Università degli Studi di Roma "La Sapienza", Museo di Zoologia (MZUR, Rome), and partly in the second author's private collection (coll. FDG, Foggia). Identifications were based on Cameron (1906, 1911), Szépligeti (1908), Morley (1916), Enderlein (1921), Seyrig (1935), Benoit (1957), Gupta &

* Corresponding author.

DOI: *https://doi.org/10.17112/FoliaEntHung.2021.82.7*
ZooBank: *http://zoobank.org/urn:lsid:zoobank.org:pub:FF4EB86A-84FE-4128-8C2D-4A85970162CE*

Gupta (1977), Hinz & Horstmann (2004), Horstmann (2009), Rousse & Villemant (2012), van Noort (2021), Vas (2020), Vas & Di Giovanni (2020), and on checking the necessary type materials. The specimens were identified by the first author using a Nikon SMZ645 stereoscopic microscope. Taxa are listed alphabetically. Photos were taken with a 14 MP MicroQ-U3L digital camera. Post-image work was done with ToupTek ToupView v4.7 and Photoshop CS3.

RESULTS

Casinaria caliginea Vas, sp. n.
(Fig. 1)

Type material – Holotype: female, Burundi, Bujumbura, Kirombwe, 3°23'45.0"S 29°23'57.9"E, 1148m, 27.I.2011, M. Mei, P. Cerretti, D. Withmore leg.; specimen pinned. – The holotype is deposited in MZUR.

Diagnosis – The new species can be easily identified among the Afrotropical *Casinaria* species by the following character states in combination: scapus and pedicellus blackish; tegula black; metasoma black; all coxae black; middle femur blackish, tibia dorsally pale yellowish, ventrally brownish; hind trochanter and trochantellus almost entirely black, femur black, tibia dark brown with distinct basal pale spot; clypeus strongly convex in profile; propodeum medially narrowly and strongly impressed with transverse wrinkles, propodeal carinae indistinct; 2*m-cu* distinctly distal to middle of areolet; nervellus not broken, not intercepted by discoidella.

Description – Female (Fig. 1). Body length ca. 8 mm, fore wing length ca. 5 mm.

Head: Antenna with first flagellomere 2.7× as long as its apical width; preapical flagellomeres quadrate. Head lenticular, transverse, with moderately long, dense silvery hairs. Ocular-ocellar distance 0.8× as long as ocellus diameter, distance between lateral ocelli 1.4× as long as ocellus diameter. Eye covered with moderately dense, very short but distinct hairs. Inner eye orbits indented, ventrally weakly convergent. Gena granulate-punctate, very short and very strongly narrowed behind eye. Occipital carina complete, weakly bent out ventrally, reaching hypostomal carina little before base of mandible; hypostomal carina little elevated. Frons impressed, granulate-punctate, with distinct median longitudinal carina. Face weakly convex in profile, coarsely rugose-punctate, relatively narrow, minimal width of face 0.6× as long as eye length. Clypeus very weakly separated from face, coarsely rugose-punctate, strongly convex in profile with a blunt subapical ridge, its apical margin weakly convex, sharp. Malar space 0.5× as long as basal width of mandible. Mandible relatively short, wide, lower margin with rather wide flange from base towards teeth, flange gradually and obliquely narrowed at teeth, mandibular teeth of about equal length.

Fig. 1. *Casinaria caliginea* Vas, sp. n., holotype (photo by Zoltán Vas)

Mesosoma: Mesosoma with dense, short to moderately long, silvery hairs. Dorsal third of pronotum granulate-punctate, ventral two-third finely granulate with strong transverse wrinkles; epomia strong. Mesoscutum rugose-punctate, convex in profile, about as long as wide, notaulus not developed. Scuto-scutellar groove deep and wide. Scutellum coarsely rugose-punctate, wide, convex in profile, medially not impressed, lateral carina developed only at the extreme base. Mesopleuron rugose-punctate with weak transverse and oblique wrinkles anterior to speculum and along anterior margin; speculum granulate, matt; mesopleural suture impressed with short, strong transverse costae. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it below its middle height, transversal part (i.e., part at level of sternaulus running through epicnemium to ventral edge of pronotum) not developed, ventral part (behind fore coxae) complete, slightly elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, elevated, medially slightly excised. Metanotum rugose-punctate, 0.4× as long as scutellum. Metapleuron rugose to rugose-punctate; juxtacoxal carina indistinct; submetapleural carina complete, strong. Pleural carina of propodeum strong; propodeal spiracle oval, separated from pleural carina by about 0.6× its length, connected to pleural carina by a distinct ridge. Propodeum long, its apex reaching beyond middle length of hind coxa, coarsely rugose, medially narrowly and strongly impressed with transverse wrinkles; propodeal carinae indistinct. Fore wing with short-stalked, relatively large areolet, 3*rs-m* present, pigmented, second recurrent vein (2*m-cu*) distinctly distal to middle of areolet; distal abscissa of *Rs* slightly curved towards wing margin; nervulus (*cu-a*) weakly postfurcal, distinctly curved, mostly inclivous, at

extreme posterior part weakly reclivous; postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted at about its middle by *Cu*1a; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a* + abscissa of *Cu*1 between *M* and *cu-a*) reclivous, not broken, not intercepted by discoidella (distal abscissa of *Cu*1); discoidella spectral, proximally not connected to nervellus. Coxae granulate-punctate. Hind femur rather slender, ca. 6.5× as long as high. Inner spur of hind tibia ca. 0.7× as long as first tarsomere of hind tarsus. Tarsal claws small and short, slightly longer than arolium, basal half pectinate.

Metasoma: Metasoma strongly compressed, finely granulate to shagreened with dense, short, silvery hairs. First tergite long and slender, 6× as long as width of its apical margin, 1.2× as long as second tergite, as long as hind femur, without glymma; dorsomedian carina of first tergite missing; postpetiolus little bulging. Suture separating first tergite from first sternite situated strongly above mid-height at basal third of first metasomal segment. Second tergite long and slender, 2.5× as long as its apical width; thyridium large, pear-shaped, its distance from basal margin of tergite ca. 2.5× as long as its length, connected to basal margin of tergite by very weak, superficial groove. Posterior margins of third and following tergites medially slightly and widely concave. Ovipositor sheath shorter than apical depth of metasoma.

Colour: Antenna, including scapus and pedicellus, blackish to dark brown. Head, including mandible, black, except palpi yellowish, mandible at base of teeth narrowly yellowish brown and mandibular teeth reddish brown. Mesosoma, including tegula, black. Metasoma black. Wings subhyaline, wing veins and pterostigma brown. Fore leg: coxa black; trochanter blackish, apically narrowly yellowish; trochantellus yellowish, basally little darkened; femur brown, dorsally yellowish; tibia dorsally pale yellowish to ivory, ventrally yellowish to yellowish brown; tarsus pale yellowish, apically brownish. Middle leg: coxa black; trochanter and trochantellus blackish to dark brown, apices very narrowly yellowish; femur blackish, apically narrowly yellowish; tibia dorsally pale yellowish to ivory, ventrally brownish; tarsus pale yellowish, apically brownish. Hind leg: coxa black; trochanter and trochantellus black, extreme apices at most very narrowly yellowish brown; femur black, apically very narrowly yellowish brown; tibia dark brown with distinct basal pale yellowish spot; tarsus dark brown.

Male: Unknown.

Distribution – Burundi.

Etymology – The specific epithet *caliginea* is the feminine form of the Latin adjective *caligineus, -a, -um* meaning dark, gloomy; it refers to the predominantly dark colouration of the new species.

Remarks on identification – Among the known Afrotropical *Casinaria* species with black tegula (see Vas (2020) and Vas & Di Giovanni (2020)), the new species can be readily identified by the following character states in combination: nervellus not broken, not intercepted, and 2*m-cu* distinctly distal to middle of areolet.

Casinaria corvina Vas, sp. n.
(Fig. 2)

Type material – Holotype: female, Burundi, Rwegura, Kibira Nat. Park, 2°53'25.9"S 29°27'25.4"E, 2226m, 28–30.I.2011, M. Mei, P. Cerretti, D. Withmore leg.; specimen pinned. – The holotype is deposited in MZUR.

Diagnosis – The new species can be easily identified among the Afrotropical *Casinaria* species by the following character states in combination: scapus and pedicellus black; tegula black; metasoma black; middle and hind legs black; propodeum medially strongly, moderately narrowly impressed with strong transverse wrinkles, propodeal carinae indistinct; 2*m-cu* little proximal to middle of areolet; nervellus not broken, not intercepted by discoidella.

Description – Female (Fig. 2). Body length ca. 12 mm, fore wing length ca. 9 mm.

Fig. 2. *Casinaria corvina* Vas, sp. n., holotype (photo by Zoltán Vas)

Head: Antenna with 47–48 flagellomeres; first flagellomere 3× as long as its apical width; preapical flagellomeres quadrate to slightly wider than long. Head lenticular, transverse, with short to moderately long, dense greyish hairs. Ocular-ocellar distance 0.8× as long as ocellus diameter, distance between lateral ocelli 1.3× as long as ocellus diameter. Eye covered with indistinct, minute, sparse hairs. Inner eye orbits indented, ventrally weakly convergent. Gena granulate-punctate, very short and very strongly narrowed behind eye. Occipital carina complete, strongly bent out ventrally, reaching hypostomal carina at base of mandible; hypostomal carina little elevated. Frons impressed, granulate-punctate, without median longitudinal carina. Face almost flat in profile, coarsely rugose-punctate, relatively wide, minimal width of face 0.8× as long as eye length. Clypeus very weakly separated from face, coarsely rugose-punctate, weakly convex in profile, its apical margin weakly convex, sharp. Malar space 0.5× as long as basal width

of mandible. Mandible wide, lower margin with rather wide flange from base towards teeth, flange abruptly narrowed at teeth, upper mandibular tooth slightly longer than lower tooth.

Mesosoma: Mesosoma with dense, short to moderately long, greyish hairs. Posteriodorsal corner of pronotum granulate-punctate, rest of pronotum smooth to finely granulate with strong transverse and oblique wrinkles; epomia strong. Mesoscutum rugose-punctate, convex in profile, little longer than wide, notaulus not developed. Scuto-scutellar groove deep and wide. Scutellum coarsely rugose, wide, convex in profile, medially not impressed, lateral carina only basally developed. Mesopleuron roughly to finely rugose-punctate with strong transverse wrinkles anterior to speculum and along anterior margin; speculum finely granulate, matt; mesopleural suture impressed with short, strong transverse costae. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it at about its middle height, transversal part (i.e., part at level of sternaulus running through epicnemium to ventral edge of pronotum) not developed, ventral part (behind fore coxae) complete, elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, elevated, medially slightly excised. Metanotum rugose, 0.3× as long as scutellum. Metapleuron rugose to rugose-punctate; juxtacoxal carina indistinct; submetapleural carina complete, strong. Pleural carina of propodeum strong; propodeal spiracle oval, separated from pleural carina by about 0.7× its length, not connected to pleural carina by a distinct ridge. Propodeum long, its apex reaching about middle length of hind coxa, coarsely rugose, medially strongly, moderately narrowly impressed with strong transverse wrinkles; propodeal carinae indistinct. Fore wing with petiolate, relatively large areolet, 3*rs-m* present, pigmented, second recurrent vein (2*m-cu*) little proximal to middle of areolet; distal abscissa of *Rs* straight, its extreme distal part distinctly curved towards wing margin; nervulus (*cu-a*) postfurcal by ca. 0.25× its length, strongly inclivous; postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted little below its middle by *Cu*1a; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a* + abscissa of *Cu*1 between *M* and *cu-a*) slightly reclivous, not broken, not intercepted by discoidella (distal abscissa of *Cu*1); discoidella spectral, proximally not connected to nervellus. Coxae granulate with weak, superficial punctures. Hind femur rather slender, ca. 6.5× as long as high. Inner spur of hind tibia ca. 0.7× as long as first tarsomere of hind tarsus. Tarsal claws small, little longer than arolium, basal two-third strongly pectinate.

Metasoma: Metasoma strongly compressed, finely granulate to shagreened with dense, short, greyish-brownish hairs. First tergite long and slender, 6.5× as long as width of its apical margin, 1.2× as long as second tergite, as long as hind femur, without glymma; dorsomedian carina of first tergite missing; postpetiolus weakly bulging. Suture separating first tergite from first sternite situated distinctly above mid-height at basal third of first metasomal segment. Second tergite rather long and slender, 3.8× as long as its apical width; thyridium relatively small, deep,

pear-shaped, its distance from basal margin of tergite ca. 2.5× as long as its length, connected to basal margin of tergite by very weak, superficial groove. Posterior margins of third and following tergites medially weakly and widely concave. Ovipositor sheath about as long as apical depth of metasoma.

Colour: Antenna including scapus and pedicellus, black. Head black, except palpi brown and mandibular teeth dark reddish brown. Mesosoma, including tegula, black. Metasoma black. Wings strongly infuscate, wing veins and pterostigma blackish to dark brown. Fore leg: coxa black with a small yellowish apical spot; trochanter blackish, dorsally yellowish; trochantellus blackish; femur black, dorsally narrowly yellowish; tibia basally and ventrally dark brown, rest of tibia pale yellowish; tarsus brown. Middle leg: black, except extreme apex of femur very narrowly yellowish, tarsus dark brown. Hind leg: black, except tarsus blackish to dark brown.

Male: Unknown.

Distribution – Burundi.

Etymology – The specific epithet *corvina* is the feminine form of the Latin adjective *corvinus, -a, -um* meaning raven-like; it refers to the almost entirely black colouration of the new species.

Remarks on identification – Due to its relatively large size and general appearance, the new species shows a superficially *Dusona*-like habitus; however, the characteristics of the first metasomal segment (suture separating tergite from sternite situated above mid-height at basal third of the segment, cross-section at the same level of the segment subcircular) clearly rule out *Dusona*. Among the known Afrotropical *Casinaria* species with black tegula (see Vas (2020) and Vas & Di Giovanni (2020)), the new species is most similar to *Casinaria latericia* Vas, 2020; however, the new species has entirely black metasoma, while the metasoma of *Casinaria latericia* Vas, 2020 is orange-brown with narrow brown dorsal patches from the third tergite on.

Dusona elegans (Szépligeti, 1908)

Material – 9 females, 10 males, Uganda, Kibale N. P. [= Kibale National Park], Kanyawara Bio. Station [= Kanyawara Research Center, Makerere University Biological Field Station], 00°33'54.4N, 30°21'29.8E, 1509m, 7.III.–24.VII.2010, S. Katusabe & Co. leg., Malaise trap; specimens pinned. – 8 females and 9 males are deposited in HNHM, one female and one male are deposited in coll. FDG.

Remarks – First records for Uganda. This species was known from Tanzania, and its description is based on male sex only (Szépligeti 1908, Yu *et al.* 2016). The hitherto unknown female sex is very similar to the male described by Szépligeti (1908); however, since the original description lacks some important diagnostic features, they are given in a short description below.

Complementary description – Female and male. Body length ca. 10–12 mm; fore wing length ca. 7–8 mm; gena very short and strongly narrowed behind eyes; occipital carina reaching hypostomal carina distinctly before base of mandible; malar space 0.4× as long as basal width of mandible; pleural part of epicnemial carina missing, transversal and ventral parts strong; propodeum almost flat in profile, distinctly elongate; propodeal carinae absent; fore wing with large, long-stalked areolet; 2*m-cu* distinctly proximal to middle of areolet; nervulus postfurcal; postnervulus intercepted little above its middle by *Cu*1a; nervellus distinctly reclivous, not broken, not intercepted by discoidella; first tergite without glymma; suture separating first tergite from first sternite absent; antenna, including scapus and pedicellus, dark; tegula black; colouration of first segment of metasoma variable, almost entirely orange to almost entirely dark, second tergite predominantly dark, third and following tergites orange; fore leg from femur on predominantly orange, more or less extensively darkened; middle leg predominantly dark; hind coxa, trochanter, trochantellus and femur blackish, tibia dark brown with a more or less distinct subbasal pale spot dorsally, tarsus dark brown.

Dusona nigrescens Vas, sp. n.
(Fig. 3)

Type material – Holotype: female, Uganda, Kibale N. P. [= Kibale National Park], Kanyawara Bio. Station [= Kanyawara Research Center, Makerere University Biological Field Station], 00°33'54.4N, 30°21'29.8E, 1509m, 18–24. VII.2010, S. Katusabe & Co. leg., Malaise trap; specimen pinned; Id. No. HNHM-HYM 155089. Paratype: female, same locality, collectors and collecting method, 24.VI.–4.VII.2010; specimen pinned; Id. No. HNHM-HYM 155090. – The holotype and the paratype are deposited in HNHM.

Diagnosis – The new species can be identified among the Afrotropical *Dusona* species by the following character states in combination: gena short and strongly narrowed behind eyes; occipital carina reaching hypostomal carina distinctly before base of mandible; malar space 0.5× as long as basal width of mandible; pleural part of epicnemial carina strong, dorsally more or less weakened, transversal part missing, ventral part strong; propodeum distinctly convex in profile, not elongate; propodeal carinae absent; fore wing with large, short-stalked or subsessile areolet; 2*m-cu* distinctly proximal to middle of areolet; nervulus postfurcal; postnervulus intercepted little above its middle by *Cu*1a; nervellus weakly inclivous, broken, intercepted by discoidella; first tergite without glymma; suture separating first tergite from first sternite absent; antenna, including scapus and pedicellus, dark; tegula black; first segment and second tergite of metasoma blackish, third and following tergites dorsally blackish, laterally orange; hind leg entirely black.

Fig. 3. *Dusona nigrescens* Vas, sp. n., holotype (photo by Zoltán Vas)

Description – Female (Fig. 3). Body length ca. 10–12 mm, fore wing length ca. 7–8 mm.

Head: Antenna with 43–48 flagellomeres; first flagellomere ca. 4× as long as its apical width; preapical flagellomeres longer than wide. Head transverse, matt, granulate with weak punctures, face rugose-granulate; hairs dense and moderately long, greyish. Ocular-ocellar distance as long as or slightly longer than ocellus diameter, distance between lateral ocelli 1.6× as long as ocellus diameter. Inner eye orbits strongly indented, ventrally slightly convergent. Gena short and strongly narrowed behind eyes, in dorsal view 0.4–0.5× as long as eye width. Occipital carina complete, not bent out ventrally, little elevated but not blade-like, reaching hypostomal carina before base of mandible in a distance about 0.5× basal width of mandible; hypostomal carina little elevated. Frons flat, weakly impressed above toruli, with weak median longitudinal carina; upper part of carinae around toruli normal, not modified. Face slightly convex in profile, upper transverse carina and median protuberance weak, minimal width of face ca. 0.65× as long as eye length. Clypeus flat in profile, very weakly separated from face, its apical margin medially widely truncate and moderately sharp, laterally convex and sharp. Malar space short, 0.5× as long as basal width of mandible. Mandible rather long and wide, lower margin with wide flange from base towards teeth, flange obliquely narrowed before teeth; upper mandibular tooth slightly longer and wider than lower tooth.

Mesosoma: Mesosoma matt with short to moderately long, dense, greyish hairs. Pronotum granulate-punctate with transverse wrinkles in lower two-third of its height, epomia strong. Mesoscutum about as long as wide, convex in profile, strongly granulate-punctate with some rugosity; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum granulate-punctate, convex in profile, lateral carina weak but discernible. Mesopleuron granulate with large, dense punctures, and with transverse wrinkles anterior to speculum and along anterior margin; speculum granulate with transverse wrinkles. Epicnemial carina: pleural part strong, dorsally more or less weakened, bent to anterior margin of mesopleuron reaching it below its middle height, transversal part (i.e., the part at the level of sternaulus running through the epicnemium to the ventral edge of pronotum) missing, ventral part (behind fore coxae) complete, strong, little elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, strong, moderately elevated, medially not excised. Metanotum granulate-punctate, ca. 0.4× as long as scutellum. Metapleuron rugose-punctate, without distinct juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum relatively weak; propodeal spiracle linear, separated from pleural carina by about 0.5× length, connected to pleural carina by a weak ridge. Propodeum granulate with dense rugosity, medially moderately widely impressed with transverse wrinkles along its entire length, distinctly convex in profile, not elongate, its apex not reaching middle length of hind coxa. Propodeal carinae absent. Fore wing with large, short-stalked or subsessile, rectangular areolet, 3*rs-m* present, pigmented, second recurrent vein (2*m-cu*) distinctly proximal to middle of areolet; distal abscissa of *Rs* weakly sinuous; nervulus (*cu-a*) postfurcal by 0.3–0.4× its length, inclivous; postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted little above its middle by *Cu*1a, *Cu*1 between 1*m-cu* and *Cu*1a 0.8× as long as *Cu*1b; lower external angle of second discal cell about right-angled. Hind wing with nervellus (*cu-a* + abscissa of *Cu*1 between *M* and *cu-a*) weakly inclivous, broken, distinctly intercepted by discoidella (*Cu*1) at about its lower third; discoidella spectral, proximally connected to nervellus. Coxae granulate. Hind femur 5.5× as long as high. Inner spur of hind tibia 0.7–0.8× as long as first tarsomere of hind tarsus. Tarsal claws small, as long as or slightly longer than arolium, basally pectinate.

Metasoma: Metasoma compressed, very finely granulate to very finely shagreened, with moderately dense, short hairs. First tergite long and slender, 6× as long as its apical width, 1.5× as long as second tergite, without glymma; dorsomedian carina of first tergite indistinct; postpetiolus only slightly widened. Suture separating first tergite from first sternite absent. Second tergite 4× as long as its apical width; thyridium small, elongate, its distance from basal margin of tergite ca. 2× as long as its length, connected to basal margin of tergite by a shallow, superficial groove. Epipleurum of third tergite not separated by a crease. Posterior margins of middle and apical tergites widely concave. Ovipositor sheath

little shorter than apical depth of metasoma; ovipositor straight, acute, dorsal preapical notch distinct.

Colour: Antenna blackish to dark brown, scapus and pedicellus black. Head black, mandible except base yellow, mandibular teeth dark reddish brown, palpi yellow. Mesosoma, including tegula, black. Metasoma: first segment and second tergite blackish, third and following tergites dorsally blackish, laterally orange; ovipositor sheath blackish. Wings subhyaline, wing veins and pterostigma brown. Fore leg: coxa black; trochanter and trochantellus light orange, dorsally more or less brownish; femur light orange, ventrally extensively dark brown; tibia light orange to yellowish; tarsus yellowish, apical tarsomeres darkened. Middle leg: coxa black; trochanter and trochantellus black; femur blackish, apically orange-brown; tibia dorsally orange to yellowish, ventrally brown; tarsus brown. Hind leg: black.

Male: Unknown.

Distribution – Uganda.

Etymology – The specific epithet *nigrescens* is a Latin one-termination present participle treated as an adjective meaning blackening, darkening; it refers to the colouration of the new species.

Remarks on identification – In general appearance the new species is superficially similar to *Dusona elegans* (Szépligeti, 1908), a species known from Tanzania, though they can be easily distinguished with the couplet given below.

Epicnemial carina: pleural part missing, transversal and ventral parts strong; nervellus distinctly reclivous, not broken, not intercepted by discoidella; propodeum almost flat in profile, distinctly elongate; middle and apical tergites orange ..... *Dusona elegans* (Szépligeti, 1908)

– Epicnemial carina: pleural part strong, dorsally more or less weakened, transversal part missing, ventral part strong; nervellus weakly inclivous, broken, intercepted by discoidella; propodeum distinctly convex in profile, not elongate; middle and apical tergites dorsally extensively blackish, laterally orange ..... *Dusona nigrescens* Vas, sp. n.

***Dusona solinervosa* Vas, sp. n.**

(Fig. 4)

Type material – Holotype: female, Uganda, Kibale N. P. [= Kibale National Park], Kanyawara Bio. Station [= Kanyawara Research Center, Makerere University Biological Field Station], 00°33'54.4N, 30°21'29.8E, 1509m, 7–13. III.2010, S. Katusabe & Co. leg., Malaise trap; specimen pinned; Id. No. HNHM-HYM 155091. Paratypes: two females, same locality, collectors and collecting method, 20–27.VI.2010 and 24.VI.–4.VII.2010; specimens pinned; Id. No. HNHM-HYM 155092–15093, respectively. – The holotype and the paratypes are deposited in HNHM.

Fig. 4. *Dusona solinervosa* Vas, sp. n., holotype (photo by Zoltán Vas)

Diagnosis – The new species can be identified among the Afrotropical *Dusona* species by the following character states in combination: gena short and strongly narrowed behind eyes; occipital carina reaching hypostomal carina distinctly before base of mandible; malar space 0.3× as long as basal width of mandible; pleural part of epicnemial carina missing, transversal and ventral parts strong; propodeum almost flat in profile, elongate; propodeal carinae almost entirely absent; fore wing with large, long-stalked areolet; 2*m-cu* distinctly proximal to middle of areolet; nervulus postfurcal; postnervulus intercepted conspicuously strongly above its middle by *Cu*1a; nervellus strongly reclivous, not intercepted by discoidella; first tergite without glymma; suture separating first tergite from first sternite absent; antenna dark brown except scapus and pedicellus ventrally entirely to extensively yellow; tegula yellow; metasoma orange except basal half of second tergite extensively dark, and crease separating epipleurum of second tergite narrowly blackish; hind coxa predominantly blackish; hind femur reddish orange, basally and apically darkened, or almost entirely brown; hind tibia orange-brown to brown, basally and apically somewhat darkened.

Description – Female (Fig. 4). Body length ca. 8 mm, fore wing length ca. 5 mm.

Head: Antenna with 41–44 flagellomeres; first flagellomere long and slender, ca. 6× as long as its apical width; preapical flagellomeres longer than wide. Head transverse, matt, granulate with weak to indistinct punctures, face rugulose-granulate; hairs dense and moderately short, whitish. Ocular-ocellar distance 0.6× as long as ocellus diameter, distance between lateral ocelli as long as

ocellus diameter. Inner eye orbits strongly indented, ventrally weakly convergent. Gena short and strongly narrowed behind eyes, in dorsal view 0.3–0.4× as long as eye width. Occipital carina complete, not bent out ventrally, little elevated but not blade-like, reaching hypostomal carina before base of mandible in a distance about 0.7× basal width of mandible; hypostomal carina little elevated. Frons flat, weakly impressed above toruli, with distinct median longitudinal carina; upper part of carinae around toruli normal, not modified. Face almost flat in profile, without upper transverse carina or median protuberance, minimal width of face ca. 0.5× as long as eye length. Clypeus slightly convex in profile, very weakly separated from face, its apical margin weakly convex and moderately sharp. Malar space very short, 0.3× as long as basal width of mandible. Mandible relatively long, lower margin with wide flange from base towards teeth, flange obliquely narrowed before teeth; upper mandibular tooth slightly longer and wider than lower tooth.

Mesosoma: Mesosoma matt, granulate with weak to indistinct punctures, and with short to moderately long, dense, whitish hairs. Pronotum with transverse wrinkles in lower 0.75 of its height, epomia strong. Mesoscutum little longer than wide, convex in profile, its punctures little stronger than on other parts of mesosoma; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carina weak but discernible. Mesopleuron with transverse wrinkles anterior to speculum; speculum entirely granulate. Epicnemial carina: pleural part missing, transversal part (i.e., the part at the level of sternaulus running through the epicnemium to the ventral edge of pronotum) and ventral part (behind fore coxae) complete, strong, little elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, strong, moderately elevated, medially not excised. Metanotum ca. 0.6× as long as scutellum. Metapleuron without distinct juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum strong; propodeal spiracle linear, separated from pleural carina by about 0.25× length, connected to pleural carina by a distinct ridge. Propodeum granulate with relatively weak transverse wrinkles on apical two-third, almost flat in profile, distinctly elongate, its apex reaching middle length of hind coxa, apical two-third medially narrowly impressed. Propodeal carinae absent, except a more or less strongly developed, short, V-shaped part basally, formed by the very short median section of anterior transverse carina and short basal sections of lateromedian longitudinal carinae. Fore wing with large, long-stalked, rectangular areolet, 3*rs-m* present, pigmented, second recurrent vein (2*m-cu*) distinctly proximal to middle of areolet; distal abscissa of *Rs* weakly sinuous; nervulus (*cu-a*) postfurcal by 0.2–0.4× its length, weakly inclivous; postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted conspicuously strongly above its middle by *Cu*1a, *Cu*1 between 1*m-cu* and *Cu*1a only 0.4× as long as *Cu*1b; lower external angle of second discal cell about right-angled. Hind wing with nervellus (*cu-a* + abscissa of *Cu*1 between *M* and *cu-a*) strongly reclivous, not intercepted by discoidella (*Cu*1); discoidella

spectral, proximally not connected to nervellus. Coxae granulate. Hind femur 5.5–6× as long as high. Inner spur of hind tibia ca. 0.75× as long as first tarsomere of hind tarsus. Tarsal claws small, slightly longer than arolium, basally pectinate.

Metasoma: Metasoma compressed, very finely granulate to very finely shagreened, with moderately dense, short hairs. First tergite long and slender, 6× as long as its apical width, 1.5× as long as second tergite, without glymma; dorsomedian carina of first tergite indistinct; postpetiolus only slightly widened. Suture separating first tergite from first sternite absent. Second tergite 3.5–4× as long as its apical width; thyridium small, elongate oval, its distance from basal margin of tergite ca. 2.5× as long as its length, connected to basal margin of tergite by a shallow, superficial groove. Epipleurum of third tergite not separated by a crease. Posterior margins of middle and apical tergites widely concave. Ovipositor sheath little shorter than apical depth of metasoma; ovipositor straight, acute, dorsal preapical notch distinct.

Colour: Antenna dark brown except scapus and pedicellus ventrally entirely to extensively yellow. Head black, except palpi pale yellow, middle of mandible yellow, mandibular teeth dark reddish brown. Mesosoma black, except tegula yellow. Metasoma orange except basal half of second tergite extensively blackish to dark brown, and crease separating epipleurum of second tergite narrowly blackish; ovipositor sheath blackish. Wings subhyaline, wing veins and pterostigma brown. Fore leg: coxa light orange to ivory; trochanter and trochantellus pale yellow to ivory; femur, tibia and tarsus orange, apical tarsomere darkened. Middle leg: coxa basally dark brown, apically orange-brown to orange; trochanter and trochantellus pale yellow to ivory; femur entirely orange, or orange but basally and ventrally brownish; tibia orange, dorsally yellowish; tarsus orange-brown, apical tarsomeres darkened. Hind leg: coxa predominantly blackish, apically orange-brown; trochanter orange with large brown patches; trochantellus brown; femur reddish orange, basally and apically darkened, or almost entirely brown; tibia orange-brown to brown, basally and apically somewhat darkened; tarsus brownish.

Male: Unknown.

Distribution – Uganda.

Etymology – The specific epithet *solinervosa* is a Latin adjective (-us, -a, -um) and is derived from the Latin adjectives solus (-us, -a, -um, meaning unique) and nervosus (-us, -a, -um, meaning veined); it refers to a distinctive characteristic of the fore wing veins of the new species, i.e., the postnervulus intercepted very strongly above its middle.

Remarks on identification – In general appearance and colouration the new species is superficially similar to *Dusona juventas* (Morley, 1916), a species known from South Africa, though they can be easily distinguished with the couplet given below.

Postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted at its middle by *Cu*1a, *Cu*1 between 1*m-cu* and *Cu*1a about as long as *Cu*1b; areolet very short-stalked, almost subsessile; hind leg excluding coxa entirely orange; scapus and pedicellus almost entirely brown ..... *Dusona juventas* (Morley, 1916)

– Postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted strongly above its middle by *Cu*1a, *Cu*1 between 1*m-cu* and *Cu*1a only 0.4× as long as *Cu*1b; areolet long-stalked; hind leg excluding coxa extensively to almost entirely brown; scapus and pedicellus ventrally entirely to extensively yellow ..... *Dusona solinervosa* Vas, sp. n.

*

Acknowledgements – Thanks are due to Hege Vårdal (Swedish Museum of Natural History) for his help in checking relevant type materials and to Viktória Szőke (HNHM) for post-image work. The authors are grateful to Villu Soon (University of Tartu, Estonia, TUZ), and Pierfilippo Cerretti and Maurizio Mei (MZUR) for providing material. This paper was supported by the János Bolyai Research Scholarship of the Hungarian Academy of Sciences.

REFERENCES

Benoit P. L. G. 1957: Les Ichneumonidae des Iles Mascareignes. – *Mémoires de l'Institut Scientifique de Madagascar* **8**: 307–316.

Cameron P. 1906: Descriptions of new species of parasitic Hymenoptera chiefly in the collection of the South African Museum, Cape Town. – *Annals of the South African Museum* **5**: 17–186.

Cameron P. 1911: On the parasitic Hymenoptera collected by Mr. A.J.T. Janse, Transvaal. – *Annals of the Transvaal Museum* **2**: 173–217.

Enderlein G. 1921: Beiträge zur Kenntnis aussereuropäischer Ichneumoniden V. Über die Familie Ophionidae. – *Stettiner Entomologische Zeitung* **82**: 3–45.

Gauld I. D. 1991: The Ichneumonidae of Costa Rica, 1. Introduction, keys to subfamilies, and keys to the species of the lower Pimpliform subfamilies Rhyssinae, Poemeniinae, Acaenitinae and Cylloceriinae. – *Memoirs of the American Entomological Institute* **47**: 1–589.

Gauld I. D., Wahl D., Bradshaw K. Hanson P. & Ward S. 1997: The Ichneumonidae of Costa Rica, 2. Introduction and keys to species of the smaller subfamilies, Anomaloninae, Ctenopelmatinae, Diplazontinae, Lycorininae, Phrudinae, Tryphoninae (excluding Netelia) and Xoridinae, with an appendix on the Rhyssinae. – *Memoirs of the American Entomological Institute* **57**: 1–485.

Gupta M. L. & Gupta V. K. 1977: Ichneumonologica Orientalis, Part V. The genus Dusona of the Indian subregion (Hymenoptera: Ichneumonidae: Porizontinae). – *Oriental Insects Monograph* **8**: 1–226.

Hinz R. & Horstmann K. 2004: Revision of the eastern Palearctic species of Dusona Cameron (Insecta, Hymenoptera, Ichneumonidae, Campopleginae). – *Spixiana* **Supplement 29**: 1–183.

Horstmann K. 2009: Revision of the Western Palearctic species of Dusona Cameron (Hymenoptera, Ichneumonidae, Campopleginae). – *Spixiana* **32**(2): 45–110.

Morley C. 1916: On some South African Ichneumonidae in the collection of the South African Museum. – *Annals of the South African Museum* **15**: 353–400. https://doi.org/10.5962/bhl.part.22198

Rousse P. & Villemant C. 2012: Ichneumons in Reunion Island: a catalogue of the local Ichneumonidae (Hymenoptera) species, including 15 new taxa and a key to species. – *Zootaxa* **3278**: 1–57. https://doi.org/10.11646/zootaxa.3278.1.1

Seyrig A. 1935: Mission scientifique de l'Omo. Tome III. Fascicule 18. Hymenoptera, II. Ichneumonidae: Cryptinae, Pimplinae, Tryphoninae et Ophioninae. – *Mémoires du Muséum National d'Histoire Naturelle* **4**: 1–100.

Szépligeti Gy. 1908: Hymenoptera: Braconidae & Ichneumonidae. – In: Sjöstedt Y. (ed.): *Wissenschaftliche Ergebnisse der Schwedischen Zoologischen Expedition nach dem Kilimandjaro, dem Meru und den umgebenden Massaisteppen*. Almqvist & Wiksells, Uppsala, pp. 25–96.

Townes H. 1969: The genera of Ichneumonidae. Part 1. – *Memoirs of the American Entomological Institute* **11**: 1–300.

van Noort S. 2021: *WaspWeb: Hymenoptera of the Afrotropical region*. Available from: http://www.waspweb.org (accessed 16 June 2021).

Vas Z. 2020: New species and records of Afrotropical, Australasian, Oriental and Palaearctic Casinaria Holmgren, 1859 (Hymenoptera: Ichneumonidae: Campopleginae). – *Opuscula Zoologica Instituti Zoosystematici et Oecologici Universitatis Budapestinensis* **51**(2): 133–152. http://dx.doi.org/10.18348/opzool.2020.2.133

Vas Z. & Di Giovanni F. 2020: New species and records of Afrotropical Campopleginae (Hymenoptera: Ichneumonidae). – *Folia entomologica hungarica* **81**: 105–114. https://doi.org/10.17112/FoliaEntHung.2020.81.105

Yu D. S. & Horstmann K. 1997: *A catalogue of world Ichneumonidae (Hymenoptera).* – The American Entomological Institute, Gainesville, 1558 pp.

Yu D. S., van Achterberg C. & Horstmann K. 2016: *Taxapad 2016, World Ichneumonoidea 2015.* – Database on flash-drive. Nepean, Ontario, Canada.