

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

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**Abstract** – Five new ichneumon wasp species are described from South Africa: *Campoplex baal* sp. n., *Campoplex diablo* sp. n., *Campoplex mephisto* sp. n., *Casinaria brachycera* sp. n. and *Hyposoter nanodraco* sp. n. An updated identification key to the Afrotropical *Casinaria* species is given. *Dusona miranda* (Szépligeti, 1908) is first reported from Kenya, and the hitherto unknown male is described. *Dusona anomala* (Seyrig, 1935) is first reported from Ethiopia, *Charops electrinus* Vas, 2020 and *Hyposoter reunionis* (Benoit, 1957) are first reported from South Africa.

**Key words** – *Casinaria*, *Campoplex*, *Charops*, *Hyposoter*, *Dusona miranda*, species description, identification key

INTRODUCTION

In this paper, based on the Afrotropical Ichneumonidae material of the Hungarian Natural History Museum (HNHM, Budapest) and material borrowed from the Biological Museum of Lund University (MZLU, Lund), five new species are described from South Africa: *Campoplex baal* sp. n., *Campoplex diablo* sp. n., *Campoplex mephisto* sp. n., *Casinaria brachycera* sp. n. and *Hyposoter nanodraco* sp. n. Additionally, *Dusona miranda* (Szépligeti, 1908) is first reported from Kenya, and the hitherto unknown male is described; *Dusona anomala* (Seyrig, 1935) is first reported from Ethiopia, *Charops electrinus* Vas, 2020 and *Hyposoter reunionis* (Benoit, 1957) are first reported from South Africa. Since the most recent identification key to the Afrotropical *Casinaria* species (VAS 2020a), several new species were described from the region (see VAS & DI GIOVANNI (2020, 2021) and present paper), hence an updated identification key to the Afrotropical *Casinaria* species is also provided here.

Ichneumonidae taxonomy and nomenclature follow YU & HORSTMANN (1997) and YU *et al.* (2012). 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 in HNHM, in MZLU and in the Iziko South African Museum (SAMC, Cape Town\*). Identifications were based on CAMERON (1906, 1911), SZÉPLIGETI (1908), CUSHMAN (1915), MORLEY (1916), ENDERLEIN (1921), SEYRIG (1935), BENOIT (1957), HEDWIG (1957), ROUSSE & VILLEMANT (2012), VAS (2020*a*, *b*), VAN NOORT (2021), VAS & DI GIOVANNI (2020, 2021), and on checking the necessary type materials. The specimens were identified by the 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

### *Campoplex baal* sp. n.

(Fig. 1)

*Type material* – Holotype: female, RSA [Republic of South Africa], Cape Prov., N of Fort Beaufort, Devils Bellows Nek, 32°26'S, 26°39'E, 1700m, 21.X.1994, leg. R. Danielsson, loc. 30; specimen card-mounted. – The holotype is deposited in SAMC.



**Fig. 1.** *Campoplex baal* sp. n., holotype (photo by Zoltán Vas)

\* SAMC: upon publication of this paper the material will be sent back to MZLU then transferred to SAMC.



*Diagnosis* – The new species can be identified among the Afrotropical *Campoplex* species by the following character states in combination: gena in dorsal view  $0.6\times$  as long as eye width, moderately narrowed behind eyes; occipital carina reaching hypostomal carina before base of mandible; malar space  $0.8\text{--}0.9\times$  as long as basal width of mandible; mesopleuron granulate with dense, weak punctures; propodeal carinae posterior to costulae somewhat weakened; area superomedia hexagonal, ca.  $1.5\times$  as long as wide, apically opened, its lateral sides posterior to costulae shortly parallel then slightly divergent; fore wing with long-stalked, rectangular areolet; nervulus interstitial; nervellus broken, weakly intercepted by discoidella; ovipositor sheath as long as hind tibia, ovipositor slender, upcurved; scapus and pedicellus dark brown; tegula yellow; metasoma dark with very narrow, indistinctly paler apical margins; all coxae dark; hind femur dark brown; hind tibia brown with orange-brown patches, basally indistinctly paler, subbasally and apically slightly darker, but without banded pattern.

*Description* – Female (Fig. 1). Body length ca. 5 mm, fore wing length ca. 3.5 mm.

Head: Antenna with 28 flagellomeres; first flagellomere ca.  $3\times$  as long as its apical width; preapical flagellomeres little longer than wide. Head transverse, matt, granulate, on face and clypeus with weak rugulosity and weak punctures; hairs whitish, dense and short, on clypeus moderately long. Ocelli small, ocular-ocellar distance  $1.6\times$  as long as ocellus diameter, distance between lateral ocelli  $2\times$  as long as ocellus diameter. Inner eye orbits slightly indented, about parallel. Gena in dorsal view  $0.6\times$  as long as eye width, moderately, roundly narrowed behind eyes. Occipital carina complete, reaching hypostomal carina distinctly before base of mandible; hypostomal carina slightly elevated. Frons flat, slightly impressed above toruli, without median longitudinal carina. Face and clypeus almost flat in profile, clypeus very weakly separated from face, its apical margin weakly convex, sharp. Malar space  $0.8\text{--}0.9\times$  as long as basal width of mandible. Mandible moderately long and narrow, lower margin with narrow carina from base towards teeth, carina gradually narrowed before teeth; mandibular teeth of about equal length.

Mesosoma: Mesosoma matt, granulate with weak to indistinct punctures, and with short to moderately long, dense, whitish hairs. Pronotum with weak, transverse and oblique wrinkles on ventral half, epomia weak. Mesoscutum about as long as wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and moderately deep. Scutellum convex in profile, lateral carina not developed. Mesopleuron granulate with dense, weak punctures; speculum smooth, shiny, along its margins very finely granulate. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it at about its middle height, transversal part (i.e., the part at the level of sternaulus running through the epicnema to the ventral edge of pronotum) not developed, ventral part (behind fore coxae) complete, not elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, not elevated, medially not



excised. Metanotum  $0.5\times$  as long as scutellum. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum moderately strong; propodeal spiracle small, oval, separated from pleural carina by ca.  $0.6\times$  its length, connected to pleural carina by a weak ridge. Propodeum granulate with indistinct punctures on anterior half, and with mostly transverse rugosity on posterior half, moderately convex in profile, weakly elongate, its apex not reaching middle length of hind coxa. Propodeal carinae complete, except median section of posterior transverse carina; carinae posterior to costulae somewhat weakened. Area basalis elongate rectangular,  $1.5\times$  as long as its basal width. Area superomedia entirely granulate, hexagonal, relatively narrow and elongate, about  $1.5\times$  as long as wide, apically opened, its lateral sides posterior to costulae shortly parallel then slightly divergent. Area petiolaris moderately wide, not impressed. Fore wing with long-stalked, rectangular areolet, *3rs-m* present, its posterior third weakly pigmented, second recurrent vein (*2m-cu*) close to distal corner of areolet; distal abscissa of *Rs* straight, its extreme distal part slightly curved towards wing margin; nervulus (*cu-a*) about interstitial, inclivous; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a* + *Cu1b*) intercepted little above its middle by *Cu1a*; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a* + abscissa of *Cu1* between *M* and *cu-a*) broken, weakly intercepted by discoidella (*Cu1*) below its middle; discoidella spectral, proximally weakly connected to nervellus. Coxae granulate. Hind femur ca.  $5\times$  as long as high. Inner spur of hind tibia ca.  $0.5\times$  as long as first tarsomere of hind tarsus. Tarsal claws small, short, about as long as arolium, basally weakly pectinate.

Metasoma: Metasoma moderately compressed, finely granulate to shagreened, with dense, short hairs. First tergite slender, ca.  $3.5\times$  as long as width of its apical margin,  $1.25\times$  as long as second tergite, without glymma; dorsomedian carina of first tergite indistinct; postpetiolus moderately bulging. Suture separating first tergite from first sternite situated little above mid-height at basal third of first metasomal segment. Second tergite  $1.5\times$  as long as its apical width; thyridium small, oval, its distance from basal margin of tergite ca.  $3\times$  as long as its length, not connected to basal margin of tergite by a groove. Posterior margins of sixth and following tergites medially excised. Ovipositor sheath as long as hind tibia; ovipositor compressed, slender, slightly and evenly upcurved, apex in profile little widened, dorsal preapical notch distinct.

Colour: Antenna dark brown to brown, scapus and pedicellus dark brown, apically very narrowly, almost indistinctly yellowish brown. Head black, except palpi and middle of mandible yellowish, mandibular teeth reddish brown. Mesosoma black, except tegula pale yellow. Metasoma: first tergite black, following tergites blackish to dark brown with very narrow, indistinctly paler apical margins. Wings hyaline, wing veins and pterostigma brown. Fore leg: coxa blackish to dark brown; trochanter and trochantellus dark brown to brown with narrow, yellowish apical margins; femur and tibia orange; tarsus yellowish brown, apical tarsomeres darkened. Middle leg: coxa blackish; trochanter and



trochantellus dark brown with narrow, yellowish apical margins; femur brown, partly orange-brown, basally narrowly yellowish; tibia orange-brown; tarsus brownish. Hind leg: coxa black; trochanter and trochantellus dark brown with narrow, yellowish apical margins; femur dark brown, basally narrowly yellowish; tibia generally brown with orange-brown patches, basally indistinctly paler, subbasally and apically slightly darker, but without distinct banded pattern; tarsus brown.

Male: Unknown.

*Distribution* – South Africa.

*Etymology* – The new species is named after Baal, one of the three Prime Evils and main antagonists in Blizzard Entertainment's computer game Diablo II, originally released in 2000 and resurrected in 2021; proper noun in apposition, ending not to be changed.

***Campoplex diablo* sp. n.**

(Fig. 2)

*Type material* – Holotype: female, RSA [Republic of South Africa], Cape Prov., 15 km NW Seymor, Katbergpass, 32°28'S, 26°41'E, 1200m, 21.X.1994, leg. R. Danielsson, loc. 29; specimen card-mounted. Paratype: female, South Africa, Cape Prov., Tzitzikama Coastal N. P., 34°02'S, 23°53'E, XI–XII.1995, leg. M. Söderlund, Malaise trap; specimen card-mounted, Id. No. HNHM-HYM 155596. – The holotype is deposited in SAMC, the paratype in HNHM.



**Fig. 2.** *Campoplex diablo* sp. n., holotype (photo by Zoltán Vas)



*Diagnosis* – The new species can be identified among the Afrotropical *Campoplex* species by the following character states in combination: gena in dorsal view  $0.4\times$  as long as eye width, strongly narrowed behind eyes; occipital carina reaching hypostomal carina at base of mandible; malar space  $0.4\text{--}0.5\times$  as long as basal width of mandible; mesopleuron granulate with weak to indistinct punctures on mesoscutum and ventral half of mesopleuron; propodeal carinae strong, at the junction of area superomedia and area petiolaris little weakened; area superomedia almost pentagonal, ca.  $1.5\text{--}1.6\times$  as long as wide, apically opened, its lateral sides posterior to costulae weakly convergent; fore wing with petiolate, rectangular areolet; nervulus interstitial to slightly postfurcal, strongly inclivous and curved; nervellus broken, intercepted by discoidella; ovipositor sheath  $0.7\times$  as long as hind tibia, ovipositor conspicuously strong and upcurved, sabre-like; scapus and pedicellus ventrally yellow; tegula yellow; metasoma predominantly dark with narrow, somewhat paler apical margins, laterotergites of middle and apical tergites extensively reddish brown to orange; fore and middle coxae ivory to pale yellow, hind coxa entirely to predominantly orange; hind femur orange-brown; hind tibia brown to orange-brown, subbasally and apically little darkened, but without banded pattern.

*Description* – Female (Fig. 2). Body length ca. 5.5 mm, fore wing length ca. 4 mm.

Head: Antenna with 29–30 flagellomeres; first flagellomere long and slender, ca.  $5\times$  as long as its apical width; preapical flagellomeres quadrate to slightly longer than wide. Head transverse, matt, granulate, without distinct punctures; hairs greyish, dense and short, on clypeus somewhat longer. Ocelli moderately small, ocular-ocellar distance  $0.9\text{--}1.1\times$  as long as ocellus diameter, distance between lateral ocelli  $1.1\text{--}1.2\times$  as long as ocellus diameter. Inner eye orbits slightly indented, about parallel. Gena short, in dorsal view  $0.4\times$  as long as eye width, strongly, moderately roundly narrowed behind eyes. Occipital carina complete, weakly bent out ventrally, reaching hypostomal carina at base of mandible; hypostomal carina slightly elevated. Frons flat, slightly impressed above toruli, without median longitudinal carina. Face and clypeus almost flat in profile, clypeus very weakly separated from face, its apical margin convex, sharp. Malar space short,  $0.4\text{--}0.5\times$  as long as basal width of mandible. Mandible moderately long and wide, lower margin with relatively wide carina from base towards teeth, carina gradually narrowed before teeth; upper mandibular tooth slightly longer and wider than lower tooth.

Mesosoma: Mesosoma matt, granulate with weak to indistinct punctures on mesoscutum and ventral half of mesopleuron, and with short to moderately long, dense, greyish hairs. Pronotum with relatively weak transverse wrinkles on ventral half, epomia weak. Mesoscutum little wider than long, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carina not developed. Mesopleuron with weak transverse and oblique wrinkles anterior to speculum; speculum relatively large, smooth, shiny,



along its margins very finely granulate. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it little 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) not developed, ventral part (behind fore coxae) complete, little elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, little elevated, medially not excised. Metanotum  $0.5\times$  as long as scutellum. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum strong; propodeal spiracle small, subcircular, separated from pleural carina by about its length, connected to pleural carina by a distinct ridge. Propodeum granulate with mostly transverse rugosity on posterior half, moderately convex in profile, its apex not reaching middle length of hind coxa. Propodeal carinae complete, except median section of posterior transverse carina; carinae strong, at the junction of area superomedia and area petiolaris little weakened. Area basalis apically narrow, almost rectangular, little longer than its basal width. Area superomedia almost pentagonal as basally very narrowly connected to area basalis, narrow and elongate, about  $1.5\text{--}1.6\times$  as long as wide, apically opened, its lateral sides posterior to costulae weakly convergent. Area petiolaris moderately wide, not impressed. Fore wing with petiolate, rectangular areolet, *3rs-m* present, its posterior end weakly pigmented, second recurrent vein (*2m-cu*) close to distal corner of areolet; distal abscissa of *Rs* distinctly curved towards wing margin; nervulus (*cu-a*) about interstitial to slightly postfurcal, strongly inclivous, distinctly curved; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a + Cu1b*) intercepted at or slightly above its middle by *Cu1a*; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a + abscissa of Cu1 between M and cu-a*) broken, intercepted by discoidella (*Cu1*) below its middle; discoidella spectral, proximally connected to nervellus. Coxae granulate. Hind femur ca.  $4.5\times$  as long as high. Inner spur of hind tibia ca.  $0.5\times$  as long as first tarsomere of hind tarsus. Tarsal claws small, short, about as long as arolium, basally weakly pectinate.

Metasoma: Metasoma moderately compressed, finely granulate to shagreened, with dense, short hairs. First tergite ca.  $3\times$  as long as width of its apical margin,  $1.4\times$  as long as second tergite, without glymma; dorsomedian carina of first tergite indistinct; postpetiolus moderately bulging. Suture separating first tergite from first sternite situated slightly below mid-height at basal third of first metasomal segment. Second tergite  $1.3\text{--}1.4\times$  as long as its apical width; thyridium oval, its distance from basal margin of tergite ca.  $1.7\text{--}1.9\times$  as long as its length, not connected to basal margin of tergite by a groove. Posterior margins of sixth and following tergites medially excised. Ovipositor sheath  $0.7\times$  as long as hind tibia; ovipositor compressed, conspicuously strong and strongly upcurved, sabre-like, apex not widened, dorsal preapical notch distinct.

Colour: Antenna brown, scapus and pedicellus ventrally yellow, apical margins of basal flagellomeres very narrowly, inconspicuously yellowish brown. Head black, except palpi and mandible pale yellow, mandibular teeth reddish



brown. Mesosoma black, except tegula yellow. Metasoma: first and second tergites black, apically very narrowly yellowish, following tergites blackish to brown with narrow, somewhat paler apical margins, laterotergites of middle and apical tergites extensively reddish brown to orange. Wings hyaline, wing veins and pterostigma brown. Fore leg: coxa, trochanter and trochantellus ivory; femur, tibia and tarsus orange. Middle leg: coxa, trochanter and trochantellus ivory to pale yellowish; femur and tibia orange, tarsus orange-brown. Hind leg: coxa entirely orange or predominantly orange with brown patches basally and ventrally; trochanter orange, dorsally more or less brownish; trochantellus orange; femur orange-brown, dorsally somewhat darker than ventrally; tibia brown to orange-brown, subbasally and apically little darkened, but without distinct banded pattern; tarsus brown.

Male: Unknown.

*Distribution* – South Africa.

*Etymology* – The new species is named after Diablo, one of the three Prime Evils and main antagonists in Blizzard Entertainment's computer game Diablo II, originally released in 2000 and resurrected in 2021; proper noun in apposition, ending not to be changed.

***Campoplex mephisto* sp. n.**  
(Fig. 3)

*Type material* – Holotype: female, RSA [Republic of South Africa], Cape Prov., De Hoop Nature Reserve, 34°27'S, 20°25'E, 0–200m, 10–13.X.1994, leg. R. Danielsson, loc. 12; specimen card-mounted. – The holotype is deposited in SAMC.

*Diagnosis* – The new species can be identified among the Afrotropical *Campoplex* species by the following character states in combination: gena in dorsal view 0.65× as long as eye width, distinctly narrowed behind eyes; occipital carina reaching hypostomal carina before base of mandible; malar space 0.8× as long as basal width of mandible; mesopleuron granulate without punctures; propodeal carinae posterior to costulae more or less weakened; area superomedia pentagonal, about as long as wide, apically opened, its lateral sides posterior to costulae very shortly and weakly constricted then moderately divergent; fore wing without areolet; nervulus strongly postfurcal; nervellus not intercepted by discoidella; ovipositor sheath 0.75× as long as hind tibia, ovipositor relatively strong, upcurved; scapus and pedicellus ventrally orange; tegula yellow; metasoma black to brown, apical margins of tergites and laterotergites orange; all coxae light orange to orange; hind femur orange; hind tibia orange, subbasally and apically brownish.





Fig. 3. *Campoplex mephisto* sp. n., holotype (photo by Zoltán Vas)

*Description* – Female (Fig. 3). Body length ca. 4.3 mm, fore wing length ca. 3 mm.

Head: Antenna with 21 flagellomeres; first flagellomere ca.  $3.5\times$  as long as its apical width; preapical flagellomeres longer than wide. Head transverse, matt, granulate, without punctures; hairs whitish, dense and short, on lower face and clypeus moderately long. Ocelli small, ocular-ocular distance  $1.6\times$  as long as ocellus diameter, distance between lateral ocelli  $1.8\times$  as long as ocellus diameter. Inner eye orbits slightly indented, about parallel. Gena in dorsal view  $0.65\times$  as long as eye width, distinctly, roundly narrowed behind eyes. Occipital carina complete, reaching hypostomal carina distinctly before base of mandible; hypostomal carina slightly elevated. Frons flat, slightly impressed above toruli, without median longitudinal carina. Face and clypeus almost flat in profile, clypeus very weakly separated from face, its apical margin convex, sharp. Malar space  $0.8\times$  as long as basal width of mandible. Mandible moderately long and narrow, lower margin with relatively wide carina from base towards teeth, carina gradually narrowed before teeth; mandibular teeth of about equal length.

Mesosoma: Mesosoma matt, granulate, without punctures, and with short to moderately short, dense, whitish hairs. Pronotum with barely discernible wrinkles on ventral half, epomia indistinct. Mesoscutum about as long as wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and moderately deep. Scutellum convex in profile, lateral carina not developed. Speculum partly smooth and shiny, partly very finely granulate. Epicnemial carina complete,



strong, pleural part bent to anterior margin of mesopleuron reaching it above its middle height, transversal part (i.e., the part at the level of sternaulus running through the epicnemium to the ventral edge of pronotum) not developed, ventral part (behind fore coxae) complete, not elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, slightly elevated, medially not excised. Metanotum  $0.5\times$  as long as scutellum. Metapleuron without juxtacoxal carina; submetapleural carina complete, moderately elevated. Pleural carina of propodeum moderately strong; propodeal spiracle very small, circular, separated from pleural carina by ca.  $0.8\times$  its length, connected to pleural carina by a weak ridge. Propodeum granulate with mostly transverse rugosity on posterior half, strongly convex in profile, not elongate, its apex not reaching middle length of hind coxa. Propodeal carinae complete, except median section of posterior transverse carina; carinae posterior to costulae more or less weakened. Area basalis elongate triangular,  $1.5\times$  as long as its basal width. Area superomedia pentagonal, relatively wide, about as long as wide, apically opened, its lateral sides posterior to costulae very shortly and weakly constricted then moderately divergent. Area petiolaris wide, not impressed. Fore wing without areolet, *3rs-m* missing, second recurrent vein (*2m-cu*) postfurcal, intercubitus (*2rs-m*) about as long as abscissa of *M* between *2rs-m* and *2m-cu*, their angle obtuse; distal abscissa of *Rs* slightly, evenly curved towards wing margin; nervulus (*cu-a*) postfurcal by  $0.3\times$  its length, weakly inclivous; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a + Cu1b*) intercepted distinctly above its middle by *Cu1a*; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a + abscissa of Cu1* between *M* and *cu-a*) about vertical, not broken, not intercepted by discoidella (*Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur ca.  $4.6\times$  as long as high. Inner spur of hind tibia ca.  $0.45\times$  as long as first tarsomere of hind tarsus. Tarsal claws small, short, little longer than arolium, basally weakly pectinate.

Metasoma: Metasoma moderately compressed, finely granulate to finely shagreened, with dense, short hairs. First tergite ca.  $3\times$  as long as width of its apical margin,  $1.25\times$  as long as second tergite, without glymma; dorsomedian carina of first tergite weak but discernible; postpetiolus bulging. Suture separating first tergite from first sternite situated slightly below mid-height at basal third of first metasomal segment. Second tergite  $1.3\times$  as long as its apical width; thyridium oval, its distance from basal margin of tergite ca.  $1.2\times$  as long as its length, not connected to basal margin of tergite by a groove. Posterior margin of apical tergite medially excised. Ovipositor sheath  $0.75\times$  as long as hind tibia; ovipositor compressed, relatively strong, weakly and evenly upcurved, apex in profile slightly widened, dorsal preapical notch distinct.

Colour: Antenna brown, except scapus and pedicellus ventrally orange. Head black, palpi pale yellow, mandible yellow except mandibular teeth light reddish brown. Mesosoma black, except tegula pale yellow. Metasoma: first tergite black, postpetiolus laterally with narrow orange stripe; second and third tergites blackish



to dark brown, lateral and apical margins orange; fourth and following tergites brown, apical margins and laterotergites orange. Wings hyaline, wing veins and pterostigma light brown. Fore and middle legs: coxae light orange to pale yellow; trochanters and trochantelli pale yellowish; femora, tibiae and tarsi orange, apical tarsomeres darkened. Hind leg: coxa orange; trochanter and trochantellus pale yellow; femur orange, apically narrowly brownish; tibia orange, subbasally and apically brownish; tarsus orange-brown to brown.

Male: Unknown.

*Distribution* – South Africa.

*Etymology* – The new species is named after Mephisto, one of the three Prime Evils and main antagonists in Blizzard Entertainment's computer game Diablo II, originally released in 2000 and resurrected in 2021; proper noun in apposition, ending not to be changed.

***Casinaria brachycera* sp. n.**

(Fig. 4)

*Type material* – Holotype: female, RSA [Republic of South Africa], Cape Prov., De Hoop Nature Reserve, 34°27'S, 20°25'E, 0–200m, 10–13.X.1994, loc. 12, leg. R. Danielsson; specimen card-mounted, apex of left antenna damaged. – The holotype is deposited in SAMC.



**Fig. 4.** *Casinaria brachycera* sp. n., holotype (photo by Zoltán Vas)



*Diagnosis* – The new species can be easily identified among the Afrotropical *Casinaria* species by the following character states in combination: antenna conspicuously short, ca.  $0.75\times$  as long as metasoma; scapus and pedicellus dark brown; tegula yellow; metasoma predominantly brown; fore and middle coxae brown, hind coxa black; middle femur light orange, tibia brownish orange; hind femur orange, tibia brown without basal pale spot; inner eye orbits parallel, face wide; propodeum medially moderately narrowly impressed with transverse wrinkles, propodeal carinae indistinct; *2m-cu* very close to distal corner of areolet; nervellus not broken, not intercepted by discoidella; hind femur stout, ca.  $5\times$  as long as high.

*Description* – Female (Fig. 4). Body length ca. 7 mm, fore wing length ca. 4.5 mm.

Head: Antenna conspicuously short, ca.  $0.75\times$  as long as metasoma, with 30 flagellomeres; first flagellomere  $3\times$  as long as its apical width; preapical flagellomeres quadrate to little wider than long. Head lenticular, transverse, with short, dense whitish hairs. Ocular-ocellar distance  $0.7\times$  as long as ocellus diameter, distance between lateral ocelli  $1.7\times$  as long as ocellus diameter. Eye bare. Inner eye orbits indented, parallel. Gena granulate-punctate, very short and moderately strongly narrowed behind eye. Occipital carina complete, moderately strongly bent out ventrally, reaching hypostomal carina little before base of mandible; hypostomal carina slightly elevated. Frons impressed, rugose-punctate, median longitudinal carina weak. Face weakly convex in profile, coarsely rugose-punctate, relatively wide, minimal width of face  $0.7\times$  as long as eye length. Clypeus very weakly separated from face, coarsely rugose-punctate, moderately convex in profile, its apical margin weakly convex, sharp. Malar space  $0.6\times$  as long as basal width of mandible. Mandible relatively short, wide, lower margin with rather wide flange from base towards teeth, flange gradually, obliquely narrowed at teeth, mandibular teeth of about equal length.

Mesosoma: Mesosoma with dense, short whitish hairs. Dorsal third of pronotum rugose-punctate, ventral two-third granulate with strong transverse wrinkles; epomia strong. Mesoscutum coarsely rugose-punctate, strongly convex in profile,  $0.9\times$  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 coarsely rugose-punctate with moderately strong transverse 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, elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, elevated, medially not excised. Metanotum coarsely rugose-punctate,  $0.4\times$  as long



as scutellum. Metapleuron rugose to rugose-punctate; juxtacoxal carina indistinct; submetapleural carina complete, strong. Pleural carina of propodeum moderately strong; propodeal spiracle subcircular, separated from pleural carina by about its length, connected to pleural carina by a distinct ridge. Propodeum long, its apex reaching little beyond middle length of hind coxa, rather coarsely rugose, medially moderately narrowly, distinctly impressed with transverse wrinkles; propodeal carinae indistinct. Fore wing with short-stalked, small areolet, *3rs-m* present, anteriorly strongly, posteriorly weakly pigmented, second recurrent vein (*2m-cu*) very close to distal corner of areolet; distal abscissa of *Rs* straight, its extreme distal part distinctly curved towards wing margin; nervulus (*cu-a*) weakly postfurcal, inclivous; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a* + *Cu1b*) intercepted slightly above its middle by *Cu1a*; lower external angle of second discal cell acute. Hind wing with nervellus (*cu-a* + abscissa of *Cu1* between *M* and *cu-a*) reclivous, not broken, not intercepted by discoidella (distal abscissa of *Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae granulate-punctate. Hind femur stout, ca. 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 moderately compressed, finely granulate to shagreened with dense, short, greyish hairs. First tergite long and slender, ca. 5× as long as width of its apical margin, 1.25× as long as second tergite, 1.1× as long as hind femur, without glymma; dorsomedian carina of first tergite missing; postpetiolus very weakly 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, 2.7× as long as its apical width; thyridium large, elongate pear-shaped, its distance from basal margin of tergite ca. 1.5× as long as its length, connected to basal margin of tergite by distinct, superficial groove. Posterior margins of third and following tergites medially slightly and widely concave. Ovipositor sheath about as long as apical depth of metasoma.

Colour: Antenna, including scapus and pedicellus, dark brown. Head black, except palpi ivory, mandible medially yellowish, basally blackish, and mandibular teeth reddish brown. Mesosoma black, tegula yellow. Metasoma: petiolus black, postpetiolus and second tergite blackish to dark brown, third and following tergites brown. Wings hyaline, wing veins and pterostigma brown. Fore leg: coxa brown; trochanter light orange; trochantellus pale yellow; femur light orange, basally darkened; tibia light orange; tarsus light orange, apically brownish. Middle leg: coxa dark brown; trochanter light orange, basally little darkened; trochantellus pale yellow; femur light orange; tibia brownish orange; tarsus brownish orange, apically brown. Hind leg: coxa black; trochanter blackish, extreme apex very narrowly yellowish brown; trochantellus yellowish, ventrally little darkened; femur orange, apically narrowly brownish; tibia brown without basal pale spot; tarsus brown.

Male: Unknown.



*Distribution* – South Africa.

*Etymology* – The specific epithet *brachycera* is the feminine form of the Latinised Greek adjective *brachycerus*, -a, -um meaning short-horned; it refers to the conspicuously short antenna of the new species.

*Remarks on identification* – Since the most recent identification key to the Afrotropical *Casinaria* species (VAS 2020a), four new species of the genus were described from the region: *Casinaria latericia* Vas, 2020 in VAS & DI GIOVANNI (2020), *Casinaria caliginea* Vas, 2021 and *Casinaria corvina* Vas, 2021 in VAS & DI GIOVANNI (2021), and one new species in this paper. Therefore, an updated version of the identification key published in VAS (2020a) is given below. It should be used with caution, as most probably several yet undescribed species occur the region. Readers inexperienced with Afrotropical *Casinaria* should check the diagnoses and descriptions of the species (e.g., in VAS (2020), VAS & DI GIOVANNI (2020, 2021)) to confirm the identifications.

1. Tegula black ..... 2
- Tegula yellow ..... 6
2. Nervellus distinctly broken, intercepted by discoidella ..... 3
- Nervellus not broken, not intercepted by discoidella ..... 4
3. Middle legs except coxae predominantly reddish, hind femur blackish, hind tibia dark reddish brown without distinct basal yellowish spot .....  
..... *Casinaria crassiventris* (Cameron, 1906)
- Middle and hind legs blackish, tibiae dorsally extensively ivory .....  
..... *Casinaria kittenbergeri* Vas, 2020
4. 2*m-cu* distinctly distal to middle of areolet, hind tibia with distinct basal pale yellowish spot, small species, body length ca. 8 mm ..... *Casinaria caliginea* Vas, 2021
- 2*m-cu* little proximal to middle of areolet, hind tibia without distinct basal pale yellowish spot, larger species, body length ca. 12–13 mm ..... 5
5. Metasoma entirely black ..... *Casinaria corvina* Vas, 2021
- Metasoma from third tergite orange-brown with narrow brown dorsal patches .....  
..... *Casinaria latericia* Vas, 2020
6. Metasoma from third tergite entirely reddish, basal tergites extensively reddish .....  
..... *Casinaria rubens* Vas, 2020
- Metasoma predominantly black to brown ..... 7
7. Hind femur reddish to orange ..... 8
- Hind femur dark reddish brown to dark brown ..... 9
8. Metasoma blackish except apical half of third tergite and almost entire fourth tergite orange to yellowish brown, hind tibia brown with distinct basal yellowish spot, inner eye orbits ventrally moderately convergent, face narrowed ventrally, minimal width of face 0.5× as long as eye length, antenna not conspicuously short ..... *Casinaria sellata* Vas, 2020
- Metasoma blackish to brown, hind tibia brown without basal pale spot, inner eye orbits parallel, face wide, minimal width of face 0.7× as long as eye length, antenna conspicuously short ..... *Casinaria brachycera* sp. nov.



9. Scapus and pedicellus entirely dark brown, metasoma blackish to dark brown, laterally dark reddish brown, hind femur dark brown, hind tibia dark brown without yellowish basal spot ..... *Casinaria granulicoxis* (Seyrig, 1935)
- Scapus and pedicellus ventrally yellowish, metasoma from third tergite predominantly chestnut-brown, hind femur dark reddish brown, hind tibia chestnut-brown with distinct basal yellowish spot ..... *Casinaria castanea* Vas, 2020

*Charops electrinus* Vas, 2020

*Material* – One female, RSA [Republic of South Africa], Transvaal, Pretoria, Lynnwood, 25°45'S, 28°14'E, 30.X.1994, leg. R. Danielsson, loc. 37; specimen card-mounted; deposited in MZLU.

*Remarks* – First record for South Africa. This species was recently described from Uganda (VAS 2020b) and reported from the Central African Republic (VAS & DI GIOVANNI 2020).

*Dusona anomala* (Seyrig, 1935)

*Material* – One female, Abyssinia, Dire-Daua [= Ethiopia, Dire Dawa], 19.XI.1911, leg. [Ö.] Kovács; specimen pinned; Id. No. HNHM-HYM 155088; deposited in HNHM.

*Remarks* – First record for Ethiopia. This species was described and known from Kenya only (SEYRIG 1935, YU *et al.* 2012). The examined specimen shows slight colouration differences as compared to the holotype of *Dusona anomala* (Seyrig, 1935): all coxae are orange (hind coxa basally blackish in holotype), and sixth tergite is not black (black in holotype); however, their conspecificity seems to be convincing.

*Dusona miranda* (Szépligeti, 1908)

*Material* – 2 males, Kenya, Mt. Elgon Nat. P. [= Mount Elgon National Park], near Chepnyalil Cave, dry evergreen montane forest, 2500m, 28.I.1992, O. Merkl & G. Várkonyi leg., No. 507, swept; specimens card-mounted; Id. No. HNHM-HYM 155113–155114; deposited in HNHM.

*Remarks* – First record for Kenya. This species was known from Tanzania, and its description is based on female sex only (SZÉPLIGETI 1908, YU *et al.* 2012). The hitherto undescribed male sex is very similar to the female 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 mm; gena short and strongly narrowed behind eyes; occipital carina reaching hypostomal carina distinctly before base of mandible; malar space 0.4–0.5× as long as basal width of mandible; pleural part of epicnemial carina developed but dorsally obsolescent, transversal part missing, ventral part strong; propodeum almost flat in profile, distinctly elongate; propodeal carinae absent; fore wing with conspicuously large, short-stalked or subsessile areolet; *2m-cu* distinctly proximal to middle of areolet; nervulus postfurcal; postnervulus intercepted distinctly above its middle by *Cu1a*; nervellus about vertical, broken, weakly intercepted by discoidella; first tergite without glymma; suture separating first tergite from first sternite absent; antenna orange-brown except scapus, pedicellus, basal flagellomeres and apical flagellomere dark; body and legs black to dark brown; wings infusate.

***Hyposoter nanodraco* sp. n.**

(Fig. 5)

*Type material* – Holotype: female, South Africa, KwaZulu Natal, S Drakensberg, Garden Castle, under overhanging rocks, 21.829°44'59.4", 29°12'42.1", 1811m, 23.I.2007, leg. L. Papp & M. Földvári, No. 36; specimen card-mounted; Id. No. HNHM-HYM 155048. – The holotype is deposited in HNHM.



**Fig. 5.** *Hyposoter nanodraco* sp. n., holotype (photo by Zoltán Vas)



*Diagnosis* – The new species can be easily identified among the Afrotropical *Hyposoter* species by the following character states in combination: propodeal carinae absent, except a very weak, short, barely discernible trace of median section of anterior transverse carina; nervulus postfurcal by  $0.3\times$  its length; inner spur of hind tibia ca.  $0.6\times$  as long as first tarsomere of hind tarsus; ovipositor straight; pronotum, mesopleuron and metapleuron entirely orange, scutellum, metanotum and hind coxa partly orange; hind femur dorsally reddish brown to dark brown, ventrally brownish yellow, hind tibia brown with yellowish brown patches dorsally and interno-medially.

*Description* – Female (Fig. 5). Body length ca. 5.5 mm, fore wing length ca. 5 mm.

Head: Antenna with 30 flagellomeres; first flagellomere long and slender, ca.  $5\times$  as long as its apical width; preapical flagellomeres little longer than wide. Head transverse, matt, granulate, without punctures; hairs dense and short, on face and clypeus moderately long. Ocular-ocellar distance  $1.2\times$  as long as ocellus diameter, distance between lateral ocelli  $0.7\times$  as long as ocellus diameter. Inner eye orbits weakly indented, about parallel. Gena short and strongly, roundly narrowed behind eyes, in dorsal view  $0.4\times$  as long as eye width. Occipital carina complete, little elevated, reaching hypostomal carina before base of mandible; hypostomal carina little elevated. Frons flat, weakly impressed above toruli. Face and clypeus slightly convex in profile, clypeus very weakly separated from face, small, its apical margin weakly convex, sharp. Malar space  $0.6\times$  as long as basal width of mandible. Mandible relatively short and wide, lower margin with rather wide flange from base towards teeth, flange obliquely narrowed at teeth; upper mandibular tooth slightly longer and wider than lower tooth.

Mesosoma: Mesosoma relatively short and stout, matt, granulate, with short to moderately long, dense hairs. Pronotum without wrinkles, epomia indistinct. Mesoscutum about as long as wide, strongly convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carina not developed. Mesopleuron, including the area of speculum, entirely granulate. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it above its middle height, transversal part (i.e., the part at the level of sternaulus running through the epicnemium to the ventral edge of pronotum) not developed, ventral part (behind fore coxae) complete, slightly elevated. Sternaulus indistinct. Posterior transverse carina of mesosternum complete but weak. Metanotum  $0.4\times$  as long as scutellum. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum strong; propodeal spiracle small, oval, separated from pleural carina by about its length, connected to pleural carina by a distinct ridge. Propodeum convex in profile, entirely granulate; propodeal carinae absent, except a very weak, short, barely discernible trace of median section of anterior transverse carina. Wings conspicuously long, fore wing almost as long as body length. Fore wing with short-stalked, rectangular areolet,



*3rs-m* present, pigmented, second recurrent vein (*2m-cu*) close to distal corner of areolet; distal abscissa of *Rs* straight; nervulus (*cu-a*) postfurcal by 0.3× its length, weakly inclivous; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a* + *Cu1b*) intercepted little above its middle by *Cu1a*; lower external angle of second discal cell acute; pterostigma narrow. Hind wing with nervellus (*cu-a* + abscissa of *Cu1* between *M* and *cu-a*) weakly reclivous, not intercepted by discoidella (*Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae granulate. Hind femur ca. 5.2× as long as high. Inner spur of hind tibia ca. 0.6× as long as first tarsomere of hind tarsus. Tarsal claws small, little longer than arolium, pectinate.

**Metasoma:** Metasoma relatively short, weakly compressed, finely to very finely granulate, with dense, short hairs. First tergite ca. 3.5× as long as its apical width, 1.5× as long as second tergite, glymma distinct, relatively weak. Second tergite relatively stout, ca. 1.5× as long as its apical width; thyridium moderately large, trapezoid, little longer than its distance from basal margin of tergite. Posterior margins of apical tergites medially slightly excised. Ovipositor sheath shorter than apical depth of metasoma; ovipositor strong, straight, dorsal preapical notch distinct.

**Colour:** Antenna dark brown except scapus and pedicellus ventrally brownish yellow. Head black, except palpi and mandible yellowish, mandibular teeth reddish brown, clypeus predominantly orange. Mesosoma black, except tegula pale yellowish, pronotum, mesopleuron and metapleuron entirely orange, scutellum laterally and metanotum dorsally partly orange. Metasoma black, apical margins of tergites 1–3 narrowly brownish yellow, apical margins of tergites 4–7 very narrowly faint yellowish, laterotergites pale brownish yellow. Wings hyaline, wing veins and pterostigma brown. Fore leg: coxa, trochanter and trochantellus pale yellow; femur reddish; tibia and tarsus light reddish yellow. Middle leg: coxa, trochanter and trochantellus pale yellow; femur reddish yellow, apically narrowly darkened; tibia and tarsus brownish. Hind leg: coxa basally extensively orange, apically dark brown to blackish; trochanter and trochantellus yellowish with brown patches; femur dorsally reddish brown to dark brown, ventrally brownish yellow; tibia brown with yellowish brown patches dorsally and interno-medially; tarsus brown.

**Male:** Unknown.

**Distribution** – South Africa.

**Etymology** – The specific epithet *nanodraco* means “small dragon”; it refers to the type locality (Drakensberg = Dragon’s Mountain) of the new species, as well as to its small size, and black-orange colouration resembling that of many depicted dragons; noun in apposition, ending not to be changed.



*Hyposoter reunionis* (Benoit, 1957)

*Material* – One female, RSA [Republic of South Africa], Cape Prov., Tsitsikama Forest Park, Stormsrivier, 33°58'S, 23°54'E, 14–16.X.1994, leg. R. Danielsson; deposited in MZLU.

*Remarks* – First record for South Africa. This species was described and known from Réunion Island only (BENOIT 1957, ROUSSE & VILLEMANT 2012).

\*

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