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The zoological results of Gy. Topál's collectings in South Argentina. 28. Ichneumonidae: Campopleginae: *Hyposoter* Förster, 1869 and *Campoletis* Förster, 1869 (Hymenoptera)

Zoltán Vas

Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum, Department of Zoology, Hymenoptera Collection, H-1088 Budapest, Baross utca 13, Hungary.
E-mail: vas.zoltan@nhmus.hu; https://orcid.org/0000-0002-1361-180X

Abstract – Taxonomical results published in this paper are based on the Neotropical Campopleginae (Hymenoptera: Ichneumonidae) material collected in Argentina by György Topál in 1961. In this paper, the genera *Hyposoter* Förster, 1869 and *Campoletis* Förster, 1869 are treated. Three new species are described: *Hyposoter tenebricus* sp. nov., *Hyposoter topali* sp. nov., and *Hyposoter vittatus* sp. nov. Additionally, *Campoletis argentifrons* (Cresson, 1864) is reported for the first time from Argentina. With nine photos.

Key words – György Topál, Neotropical Region, species description, taxonomy

INTRODUCTION

Results published in this paper are based on the Neotropical Campopleginae (Hymenoptera: Ichneumonidae) material of the Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum, Budapest (HNHM). The material treated in this paper were collected in Argentina (Rio Negro Province: El Bolsón and Chubut Province: El Hoyo) in 1961 by György Topál (1931–2016, mammologist researcher and curator of the HNHM). This paper is the continuation of Vas (2024*a*) and part of the series of papers entitled "The zoological results of Gy. Topál's collectings in South Argentina", issued between 1963 and 1979 (with 26 parts), then resurrected and continued after 45 years by Vas (2024*a*) (see this reference for details on the series).

In this paper, the genera *Hyposoter* Förster, 1869 and *Campoletis* Förster, 1869 are treated. Both represent rather species-rich genera of the subfamily, each with about 150 valid species worldwide (Yu *et al*. 2016). However, Neotropical species of these genera are rather poorly known: prior to this study, only nine valid species of *Hyposoter* (Townes & Townes 1966, Yu *et al*. 2016) and

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seven valid species of *Campoletis* (Townes & Townes 1966, Yu *et al*. 2016, Vas 2024*b*, *c*) were known to occur in the region. In this paper, three new *Hyposoter* species are described from Argentina, while previously only three species (*H. christenseni* (Blanchard, 1946), *H. denieri* Blanchard, 1946, *H. rubraniger* (López Cristóbal, 1947)) were recorded from the country (Yu *et al*. 2016). Additionally, *Campoletis argentifrons* (Cresson, 1864) is reported for the first time from Argentina, thus, with the species already reported from the country (*C. curvicauda* (López Cristóbal, 1947), *C. grioti* (Blanchard, 1946), *C. yaga* Vas, 2024), the number of *Campoletis* species known from Argentina rises to four (Yu *et al*. 2016, Vas 2024*c*).

MATERIAL AND METHODS

Taxonomy and nomenclature follow Yu & Horstmann (1997) and Yu *et al*. (2016). Morphological terminology follows Gauld (1984, 1991) and Gauld *et al*. (1997); however, in cases of wing veins the corresponding terminology of Townes (1969) is also used. Terminology of body surface sculpturing follows Harris (1979).

Identifications were based on the works of Say (1835), Blanchard (1846), Brullé (1846), Spinola (1851), Cresson (1864, 1865, 1874), Provancher (1886), Ashmead (1890), Viereck (1912*a*, *b*, 1917, 1925), Cushman (1919), Roman (1920), López Cristóbal (1947), Townes & Townes (1966), Townes (1970), Riedel (2017), Vas (2021, 2022, 2023, 2024*b*, *c*, *d*), Galsworthy *et al*. (2023), and on examination of adequate type materials (at least from photos of scientific quality). The type specimens of the three species known to occur in Argentina (deposited in Argentinian institutions) are either lost or at least apparently lost (i.e., cannot be located) (Townes & Townes 1966, Aquino *et al*. 2010, Daniel A. Aquino (Museo de La Plata, Argentina) pers. comm.). However, luckily their original descriptions by Blanchard (1846) and López Cristóbal (1947) are fairly detailed and illustrated to clearly rule out the possibility of their conspecificity with any of the newly described species below.

The specimens were identified by the author using a Nikon SMZ645 stereoscopic microscope. Label data of holotype specimens are given verbatim, with explanations and additions (the latter ones verbatim from Topál (1963)) in square brackets. Photos were taken with a Nikon-D7200 camera, applied with Nikon AF-S Micro Nikkor 105mm objective and DCR-150 Raynox Macro Conversion lens managed by Helicon Remote, stacked by Helicon Focus.

TAXONOMY

Family: Ichneumonidae Latreille, 1802
Subfamily: Campopleginae Förster, 1869

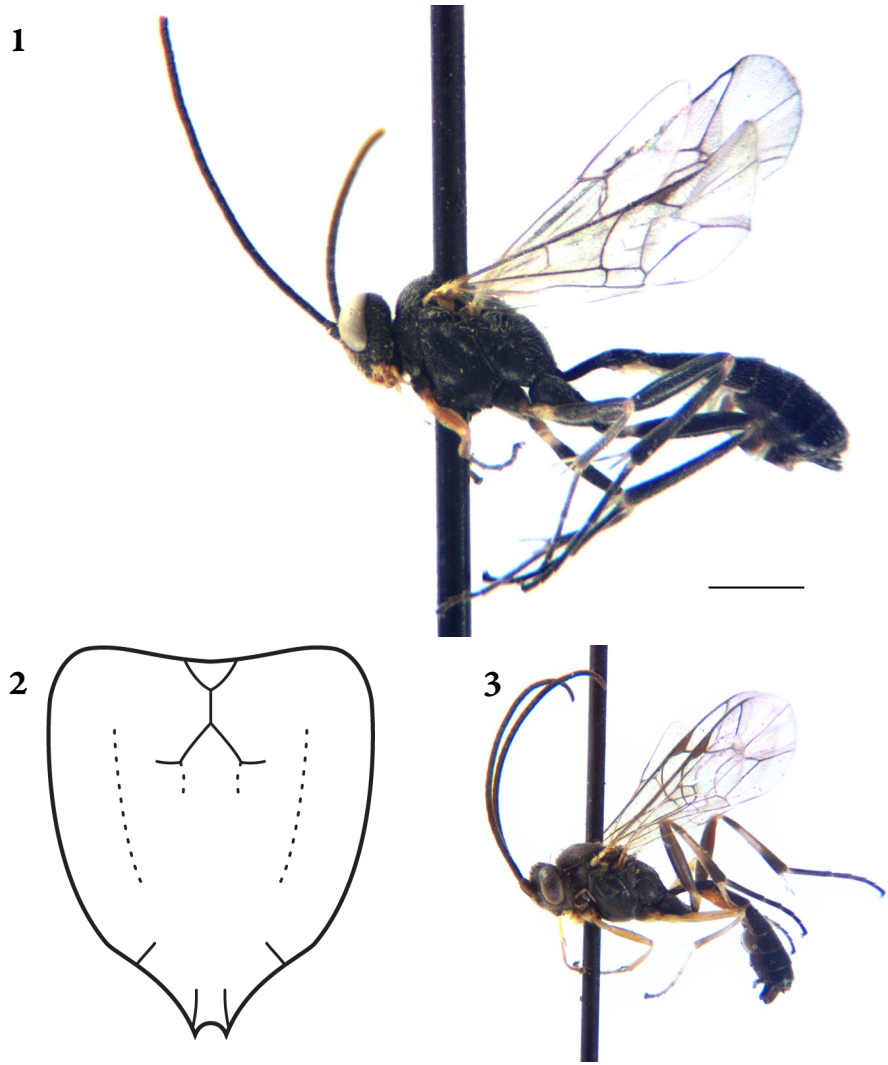
Genus: *Hyposoter* Förster, 1869

Type species: *Limnerium parorgyiae* Viereck, 1810; subsequent designation by Viereck (1910)
Diagnosis: Townes (1970), Gauld (1984)

Hyposoter tenebricus sp. nov.
(Figs 1–3)

Type material – Holotype: female, "S. Arg. Rio Negro [= South Argentina, Rio Negro Province], El Bolsón, [leg. Gy.] Topál, Nr. 635 [= forehill of Mt. Piltriquitron, 360–380 m, beaten from budding Colletia bushes on shrubby slope], 17.X.[19]61"; holotype specimen pinned, id. HNHM-HYM 155360. Paratypes: four females and one male, same locality and collector as holotype but one female collected on 16.X.1961 (Nr. 629), two females on 19.X.1961 (Nr. 641), one female on 7.XI.1961 (Nr. 708), and one male on 19.X.1961 (Nr. 640); all paratype specimens pinned, id. HNHM-HYM 155361–155365, respectively. Holotype and paratypes are deposited in the Hymenoptera Collection of the HNHM.

Diagnosis – The new species can be distinguished from its congeners by the following character states in combination: preapical flagellomeres longer than wide; clypeus moderately convex in profile; mesopleuron, including speculum, granulate, matt, virtually impunctate; propodeum moderately long, weakly convex in profile, posteriorly not produced, its surface granulate with a few, weak rugae around apex; median section of anterior transverse carina and extreme anterior parts of lateromedian longitudinal carinae strong, other carinae mostly obsolescent, however their various parts more or less discernible; area basalis short, triangular, posteriorly often merged into a single median carina; area superomedia not or weakly bordered laterally, slightly longer than wide, posteriorly opened; areolet short-stalked, second recurrent vein (2*m-cu*) close to distal corner of areolet; nervulus (*cu-a*) strongly postfurcal; second tergite 1.1–1.3× as long as its apical width; posterior margins of apical tergites straight; antenna black; tegula yellow, sometimes proximally narrowly brownish; metasomal tergites black, sternites of second and third tergites pale yellowish, following sternites pale with wide, dark brown bands; wings hyaline; all coxae entirely to predominantly black; hind femur black; hind tibia blackish with a distinct, pale yellow spot at extreme base, sometimes medially paler, brownish to yellowish brown (in female) or yellowish (in male); tibial spurs bicoloured.



Figures 1–3. *Hyposoter tenebricus* sp. nov., 1 = holotype female, scale bar = 1 mm, 2 = propodeum, dorsal view, 3 = paratype male (photos by Zoltán Vas, drawing by Viktória Szőke)

Description – Female (Figs 1–2). Body length 5.0–5.5 mm, fore wing length 4.5–5.0 mm.

Head: Antenna with 31 flagellomeres, first flagellomere 3.7–3.9× as long as its apical width, preapical flagellomeres longer than wide. Head transverse, matt, granulate, virtually impunctate, and with dense, moderately short hairs. Ocular-ocellar distance 1.1–1.2× as long as ocellus diameter, distance between lateral ocelli 1.2–1.3× as long as ocellus diameter. Inner eye orbits weakly indented,

subparallel. Gena in dorsal view 0.4–0.5× as long as eye width, distinctly narrowed behind eyes. Occipital carina complete, reaching hypostomal carina before base of mandible; hypostomal carina slightly elevated. Frons weakly convex, slightly impressed above toruli, median longitudinal carina absent. Face almost flat in profile. Clypeus moderately convex in profile, its apical margin convex, moderately sharp. Malar space 0.6–0.8× as long as basal width of mandible. Mandible short and wide, lower margin of mandible with a quite wide flange from base towards teeth, flange rather abruptly narrowed before teeth; mandibular teeth subequal.

Mesosoma: Mesosoma matt, granulate, virtually impunctate, and with dense, moderately short hairs. Pronotum with weak, transverse wrinkles on lower half; epomia weak. Mesoscutum about as long as wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carinae not developed. Mesopleuron, including speculum, entirely granulate, matt, virtually impunctate but sometimes lower half with rather weak, barely discernible traces of punctures. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it at about its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete. Metanotum almost 0.5× as long as scutellum, anteriorly with a pair of foveae. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, distinct; propodeal spiracle subcircular, separated from pleural carina by at most its length, connected to pleural carina by a weak ridge. Propodeum moderately long, rather weakly convex in profile, posteriorly not produced; its surface granulate, only with a few, rather weak rugae around extreme apex. Propodeal carinae mostly obsolescent, however median section of anterior transverse carina, and extreme anterior parts of lateromedian longitudinal carinae (those bordering area basalis) strong, otherwise various parts of longitudinal carinae and lateral sections of posterior transverse carina more or less discernible. Area basalis short, triangular, posteriorly often merged into a single median carina. Area superomedia not or only rather weakly bordered laterally (in the latter case apparently slightly longer than wide), granulate, posteriorly opened, confluent with the predominantly granulate area petiolaris. Fore wing with short-stalked areolet, 3*rs-m* present, second recurrent vein (2*m-cu*) close to distal corner of areolet; distal abscissa of *Rs* straight; nervulus (*cu-a*) postfurcal by 0.3–0.4× its length, moderately inclivous; 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*) about vertical, not intercepted by discoidella (*Cu*1); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur 5.5–6.0× as long as high. Inner spur of hind tibia ca. 0.6× as long as first tarsomere of hind tarsus. Hind tarsus without a midventral row of closely spaced, short hairs. Tarsal claws small, about as long as arolium, basally pectinate.

Metasoma: Metasoma relatively short, weakly compressed, granulate to shagreened, and with dense, short hairs. First tergite slender, almost 3× as long as its posterior width, 1.3× as long as second tergite; glymma strong; dorsomedian carina of first tergite weak. Second tergite 1.1–1.3× as long as its posterior width; thyridium oval, its distance from anterior margin of tergite shorter than its length. Third tergite quadrate, following tergites transverse. Posterior margins of sixth and seventh tergites straight, not excised. Ovipositor sheath slightly shorter than apical depth of metasoma; ovipositor strong, dorsal preapical notch distinct.

Colour: Antenna, including scapus and pedicellus, black. Head black, palpi and mandible yellow, mandibular teeth brownish. Mesosoma black, tegula yellow, sometimes proximally narrowly brownish. Metasomal tergites entirely black; sternites of second and third tergites pale yellowish, following sternites pale yellowish with rather wide, dark brown bands. Wings hyaline, wing veins and pterostigma brown. Fore leg: coxa black, apically narrowly yellowish; trochanter and trochantellus yellowish; femur orange-brown, basally and ventrally darkened, brown; tibia orange-brown with a small, more or less distinct, yellowish spot at extreme base; tarsus brownish. Middle leg: coxa black; trochanter yellowish, partly brownish; trochantellus yellowish; femur dark brown to blackish; tibia dark brown with a more or less distinct, yellowish spot at extreme base; tibial spurs bicoloured, basally pale yellowish, apically brownish; tarsus brownish. Hind leg: coxa black; trochanter and trochantellus blackish; femur black; tibia blackish with a distinct, pale yellow spot at extreme base, sometimes tibia medially weakly paler, brownish, rarely yellowish brown; tibial spurs bicoloured, basally pale yellowish, apically dark brownish; tarsus dark brown, extreme base of first tarsomere narrowly pale yellowish.

Male (Fig. 3): Similar to female in all characters described above, except: first flagellomere stouter, ca. 3× as long as its apical width; ocelli slightly larger, ocular-ocellar distance and distance between lateral ocelli about as long as ocellus diameter; posterior half of propodeum slightly more rugose and parts of lateromedian longitudinal carinae bordering the sides of area superomedia more developed than in female; parameres wide, apically rounded; legs somewhat lighter coloured than in females, apices of fore and middle coxae yellowish, middle trochanter and hind trochantellus yellowish, hind tibia medially lighter, yellowish, forming a distinctly banded pattern.

Distribution – Argentina, Rio Negro Province.

Etymology – The specific epithet *tenebricus* is the masculine form of the Latin adjective *tenebricus, -a, -um*, meaning dark, gloomy, in allusion to the dark colouration of the new species.

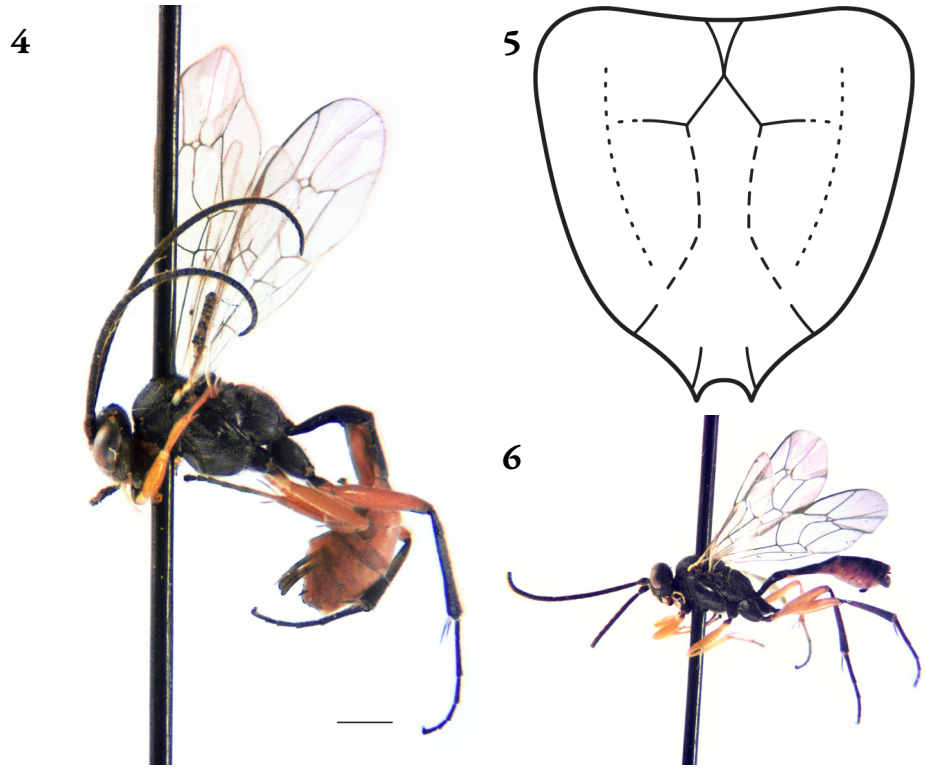
Remarks on identification – The new species with its black metasoma and predominantly dark legs is not quite similar to any known Neotropical species of the genus, except maybe to *Hyposoter niger* (Brullé, 1846), a rather dark-coloured species known from Chile. *Hyposoter niger* can be easily distinguished

from the new species by its distinctly infuscate wings, and by being about twice larger (body length 10–11 mm) and entirely black (including mandible, tegula, metasomal sternites and all legs). The new species is somewhat similar in colouration to the Palaearctic and Oriental species, *Hyposoter neglectus* (Holmgren, 1860); however, it can be readily separated from the new species by its reddish fore and middle femora, medially extensively yellowish hind tibia, and well developed propodeal carination.

***Hyposoter topali* sp. nov.**
(Figs 4–6)

Type material – Holotype: female, "S. Arg. Rio Negro [= South Argentina, Rio Negro Province], El Bolsón, [leg. Gy.] Topál, Nr. 389 [= Mt. Piltriquitron NW valley, 480 m, netted in grasses in forest-clearing, at dusk], 14.IV.[19]61"; holotype specimen pinned, id. HNHM-HYM 155372. Paratypes: one female and one male, same label data as holotype; all paratype specimens pinned, id. HNHM-HYM 155373–155374, respectively. Holotype and paratypes are deposited in the Hymenoptera Collection of the HNHM.

Diagnosis – The new species can be distinguished from its congeners by the following character states in combination: preapical flagellomeres longer than wide; clypeus almost flat in profile; mesopleuron granulate, matt, lower half with rather weak traces of punctures, below and anterior to speculum with distinct rugae, speculum very finely sculptured, subpolished; propodeum moderately short, convex in profile, posteriorly not produced, its surface predominantly rugose; propodeal carinae weak to obsolescent, lateromedian longitudinal carinae weak but more or less discernible, lateral longitudinal carinae obsolescent, anterior transverse carina medially distinct, laterally obsolescent, costulae incomplete, posterior transverse carina obsolescent except lateral parts discernible; area basalis elongate, triangular, posteriorly more or less merged into a single median carina; area superomedia pentagonal, ca. 2.0–2.5× as long as wide, subparallel to slightly convergent towards apex, posteriorly opened, its surface distinctly rugose; area petiolaris strongly rugose; areolet long-stalked, small, second recurrent vein (2*m-cu*) distal to middle of areolet; nervulus (*cu-a*) weakly postfurcal; second tergite 1.2–1.3× as long as its apical width; posterior margins of apical tergites straight; antenna black; tegula pale yellow; first tergite of metasoma black, second tergite entirely black or almost entirely black, anterior half of third tergite dorsally black, otherwise third tergite and following tergites orange in female, while in male third and following tergites dorsally blackish, laterally orange; sternites of second and third tergites pale orange, following sternites pale orange with dark brown patches; wings hyaline; all coxae black; hind femur orange; hind tibia dark brown, medially (especially interno-medially) slightly, indistinctly paler brown.



Figures 4–6. *Hyposoter topali* sp. nov., 4 = holotype female, scale bar = 1 mm, 5 = propodeum, dorsal view, 6 = paratype male (photos by Zoltán Vas, drawing by Viktória Szőke)

Description – Female (Figs 4–5). Body length 6.0–6.5 mm, fore wing length 5.0–5.5 mm.

Head: Antenna with 32–33 flagellomeres, first flagellomere 3.8–4.0× as long as its apical width, preapical flagellomeres longer than wide. Head transverse, matt, granulate, virtually impunctate except clypeus with a few, weak punctures, and with dense, short hairs. Ocular-ocellar distance 1.0–1.1× as long as ocellus diameter, distance between lateral ocelli 1.6–1.8× as long as ocellus diameter. Inner eye orbits weakly indented, parallel. Gena in dorsal view 0.4× as long as eye width, strongly narrowed behind eyes. Occipital carina complete, reaching hypostomal carina before base of mandible; hypostomal carina slightly elevated. Frons weakly convex, slightly impressed above toruli, median longitudinal carina absent. Face and clypeus almost flat in profile, clypeus small, its apical margin convex, sharp. Malar space 0.8–0.9× as long as basal width of mandible. Mandible short and wide, lower margin of mandible with a quite wide flange from base towards teeth, flange rather abruptly narrowed before teeth; upper mandibular tooth slightly longer than lower tooth.

Mesosoma: Mesosoma matt, granulate, virtually impunctate except some barely discernible traces on lower half of mesopleuron, and with dense, short hairs. Pronotum with strong, transverse wrinkles on lower half; epomia distinct. Mesoscutum about as long as wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and moderately deep. Scutellum convex in profile, lateral carinae not developed. Mesopleuron granulate, matt, lower half with rather weak, barely discernible traces of punctures, below and anterior to speculum with distinct rugae; speculum very finely sculptured, subpolished. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it at about its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete. Metanotum almost 0.5× as long as scutellum, anteriorly with a pair of weak foveae. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, distinct; propodeal spiracle oval, separated from pleural carina by about its length, connected to pleural carina by a distinct ridge. Propodeum moderately short, distinctly convex in profile, posteriorly not produced; its surface strongly rugose except around extreme base. Propodeal carinae weak to obsolescent: lateromedian longitudinal carinae weak but more or less discernible; lateral longitudinal carinae obsolescent; anterior transverse carina medially distinct, laterally obsolescent, costulae incomplete; posterior transverse carina obsolescent except lateral parts discernible. Area basalis elongate, triangular, posteriorly more or less merged into a single median carina. Area superomedia pentagonal, elongate, ca. 2× as long as wide, subparallel to slightly convergent towards apex, posteriorly opened; its surface distinctly rugose on granulate background. Area petiolaris strongly rugose. Fore wing with long-stalked, small areolet, 3*rs-m* present, second recurrent vein (2*m-cu*) distal to middle of areolet; distal abscissa of *Rs* straight; nervulus (*cu-a*) postfurcal by about its width, weakly inclivous; postnervulus (abscissa of *Cu*1 between 1*m-cu* and *Cu*1a + *Cu*1b) intercepted slightly 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*) almost vertical, slightly reclivous, not intercepted by discoidella (*Cu*1); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur 5.0–5.5× as long as high. Inner spur of hind tibia ca. 0.65× as long as first tarsomere of hind tarsus. Hind tarsus without a midventral row of closely spaced, short hairs. Tarsal claws small, about as long as arolium, basally pectinate.

Metasoma: Metasoma relatively short, moderately compressed, granulate to shagreened, and with dense, short hairs. First tergite slender, 3× as long as its posterior width, 1.25× as long as second tergite; glymma distinct; dorsomedian carina of first tergite rather weak. Second tergite 1.2× as long as its posterior width; thyridium oval, its distance from anterior margin of tergite shorter than its length. Third and fourth tergites subquadrate, following tergites transverse. Posterior margins of sixth and seventh tergites straight, not excised. Ovipositor

sheath slightly shorter than apical depth of metasoma; ovipositor strong, dorsal preapical notch distinct, lower valve in profile slightly concave opposite to dorsal preapical notch.

Colour: Antenna, including scapus and pedicellus, black. Head black, palpi and mandible pale yellow, mandibular teeth brownish. Mesosoma black, tegula pale yellow. Metasoma: first tergite entirely black; second tergite entirely black or almost entirely black with a pair of small, orange spots in posterior lover corners; anterior half of third tergite dorsally black, otherwise third tergite orange; following tergites orange; sternites of second and third tergites pale orange, following sternites pale orange with dark brown patches. Wings hyaline, wing veins and pterostigma brown. Fore and middle legs: coxae black; trochanters yellowish, basally distinctly dark brown; trochantelli yellowish; rest of legs orange, apical tarsomeres brownish. Hind leg: coxa black; trochanter black, apically very narrowly paler; trochantellus orange; femur orange; tibia dark brown, medially (especially interno-medially) slightly, indistinctly paler brown; tibial spurs predominantly dark, basally paler; tarsus dark brown, extreme base of first tarsomere very narrowly paler.

Male (Fig. 6): Similar to female in all characters described above, except: body length ca. 5.5 mm, fore wing length ca. 4 mm; gena in dorsal view 0.5× as long as eye width; area superomedia even more elongate than in female, almost 2.5× as long as wide; second tergite 1.3× as long as its posterior width; parameres wide, apically rounded; third and following tergites dorsally blackish, laterally orange.

Distribution – Argentina, Rio Negro Province.

Etymology – The new species is dedicated to the memory of György Topál (1931–2016), collector of the type specimens, renowned mammalogist, curator and one of the most dedicated collectors of the HNHM, who greatly contributed to the richness of insect collections of the HNHM; the specific epithet is proper noun in the genitive case.

Remarks on identification – The new species, with its contrasting orange hind femur and dark brown hind tibia, propodeal carination, and elongate, at least twice as long as wide area superomedia, cannot be confused with any known Neotropical species of the genus. Among the New World species, it may be superficially similar to *Hyposoter exiguae* (Viereck, 1912), a species known from Mexico, the USA, and Canada. However, this species can be easily distinguished from the new species by its much more extensively orange-coloured basal tergites, basally and medially pale yellow hind tibia, and its quite different area superomedia (which is about as long as wide). The new species is somewhat similar in colouration (except that of hind leg) to *Hyposoter rufovariatus* (Schmiedeknecht, 1909), a Western Palaearctic species; however, it can be readily separated from the new species by its quite different area superomedia (which is about as long as wide), and medially distinctly and widely reddish hind tibia.

Hyposoter vittatus sp. nov.
(Figs 7–9)

Type material – Holotype: female, "S. Arg. Rio Negro [= South Argentina, Rio Negro Province], El Bolsón, [leg. Gy.] Topál, Nr. 694 [= Pampa Azcona, 350 m, netted in grassed with hemlock near Arroyo Negro, at dusk], 4.XI.[19]61"; holotype specimen pinned, id. HNHM-HYM 155375. Paratypes: one female and five males, same collector as holotype but the female collected in Rio Negro Province, El Bolsón on 17.III.1961 (Nr. 330), two males in Chubut Province, El Hoyo on 8.I.1961 (Nr. 222), one male in Rio Negro Province, El Bolsón on 5.II.1961 (Nr. 255), and two males in Rio Negro Province, El Bolsón on 6.XI.1961 (Nr. 701); all paratype specimens pinned, id. HNHM-HYM 155376–155381, respectively. Holotype and paratypes are deposited in the Hymenoptera Collection of the HNHM.

Diagnosis – The new species can be distinguished from its congeners by the following character states in combination: preapical flagellomeres longer than wide; clypeus conspicuously convex in profile, apically distinctly impressed; mesopleuron granulate, impunctate except lower half with rather weak punctures, speculum entirely granulate, matt; propodeum moderately long, weakly convex in profile, posteriorly not produced, its surface granulate, only with a few, rather weak rugae around apex; propodeal carinae distinct except costulae distally obsolescent and median part of posterior transverse carina absent; area basalis triangular, posteriorly sometimes more or less merged into a single median carina; area superomedia pentagonal, about as long as wide in female, 1.1–1.3× as long as wide in male, subparallel to slightly convergent towards apex, entirely granulate, posteriorly opened; area petiolaris predominantly granulate, at most weakly rugose apically; areolet subsessile or short-stalked, second recurrent vein (2*m-cu*) distal to middle of areolet; nervulus (*cu-a*) strongly postfurcal; second tergite 1.1–1.2× as long as its apical width; posterior margins of apical tergites straight; antenna black; tegula pale yellow; first tergite of metasoma black, second tergite black with a reddish band occupying the posterior one-fifth to one-fourth of the tergite, third and following tergites dorsally blackish, with wide, reddish bands; sternites of second and third tergites orange with or without brown patches, following sternites orange with brown patches; wings hyaline; fore and middle coxae predominantly, hind coxa entirely black; hind femur orange; hind tibia basally with a distinct, yellowish spot, subbasally and apically dark brown, medially pale orange to yellowish.

Description – Female (Figs 7–8). Body length 5.0–5.5 mm, fore wing length 4.0–4.5 mm.

Head: Antenna with 30–31 flagellomeres, first flagellomere 3.7–4.0× as long as its apical width, preapical flagellomeres longer than wide. Head transverse, matt, granulate, virtually impunctate except clypeus with a few, weak traces of punctures, and with dense, short hairs. Ocular-ocellar distance as long as ocellus

diameter, distance between lateral ocelli 1.6× as long as ocellus diameter. Inner eye orbits weakly indented, subparallel. Gena in dorsal view 0.4× as long as eye width, strongly narrowed behind eyes. Occipital carina complete, reaching hypostomal carina before base of mandible; hypostomal carina slightly elevated. Frons weakly convex, distinctly impressed above toruli, median longitudinal carina absent. Face weakly convex in profile. Clypeus conspicuously convex in profile, apically distinctly impressed, small, its apical margin convex, sharp. Malar space 0.8× as long as basal width of mandible. Mandible short and wide, lower margin of mandible with a quite wide flange from base towards teeth, flange rather abruptly narrowed before teeth; mandibular teeth subequal.

Mesosoma: Mesosoma matt, granulate, virtually impunctate except some weak punctures on lower half of mesopleuron, and with dense, short hairs. Pronotum with relatively weak, transverse wrinkles on lower half; epomia distinct. Mesoscutum about as long as wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carinae not developed. Mesopleuron granulate, matt, impunctate except lower half with rather weak punctures; speculum entirely granulate, matt. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it at about its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete. Metanotum almost 0.5× as long as scutellum, anteriorly with a pair of deep foveae. Metapleuron without juxtacoxal carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, distinct; propodeal spiracle circular, separated from pleural carina by about its length, connected to pleural carina by a distinct ridge. Propodeum moderately long, weakly convex in profile, posteriorly not produced; its surface granulate, only with a few, rather weak rugae around apex. Propodeal carinae distinct except costulae distally obsolescent and median part of posterior transverse carina absent. Area basalis triangular, longer than its anterior width, posteriorly sometimes more or less merged into a single median carina. Area superomedia pentagonal, about as long as wide, subparallel to slightly convergent towards apex, entirely granulate, posteriorly opened, confluent with the predominantly granulate area petiolaris. Fore wing with subsessile or short-stalked areolet, 3*rs-m* present, second recurrent vein (2*m-cu*) distal to middle of areolet; distal abscissa of *Rs* straight; nervulus (*cu-a*) postfurcal by 0.2–0.4× its length, moderately inclivous; 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*) subvertical, slightly reclivous, not intercepted by discoidella (*Cu*1); discoidella spectral, proximally not connected to nervellus. Coxae granulate. Hind femur 5.0–5.5× as long as high. Inner spur of hind tibia 0.6–0.7× as long as first tarsomere of hind tarsus. Hind tarsus without a distinct midventral row of closely spaced, short hairs, though a

slightly darker, inconspicuous line barely discernible. Tarsal claws small, about as long as arolium, basally weakly pectinate.

Metasoma: Metasoma relatively short, moderately compressed, granulate to shagreened, and with dense, short hairs. First tergite slender, 2.6–2.7× as long as its posterior width, 1.3× as long as second tergite; glymma distinct; dorsomedian carina of first tergite indistinct. Second tergite 1.1× as long as its posterior width; thyridium subcircular, its distance from anterior margin of tergite shorter than its length. Third and following tergites transverse. Posterior margins of sixth and seventh tergites straight, not excised. Ovipositor sheath shorter than apical depth of metasoma.

Colour: Antenna, including scapus and pedicellus, black. Head black, palpi and mandible yellow, mandibular teeth brownish. Mesosoma black, tegula pale yellow. Metasoma: first tergite black; second tergite black with a reddish band occupying the posterior one-fifth to one-fourth of the tergite; third and following tergites dorsally blackish, with wide, reddish bands, the laterotergites more extensively reddish; sternites of second and third tergites orange with or without brown patches, following sternites orange with brown patches. Wings hyaline, wing veins and pterostigma brown. Fore and middle legs: coxae black, apically more or less yellowish; trochanters and trochantelli yellow; rest of legs orange, apical tarsomeres brownish. Hind leg: coxa black; trochanter black, apically narrowly yellowish; trochantellus yellow; femur orange; tibia basally with a distinct, yellowish spot, subbasally and apically dark brown, medially pale orange to yellowish; tibial spurs bicoloured, basally pale yellowish, apically dark brownish; tarsus brown, extreme base of first tarsomere narrowly pale yellowish.

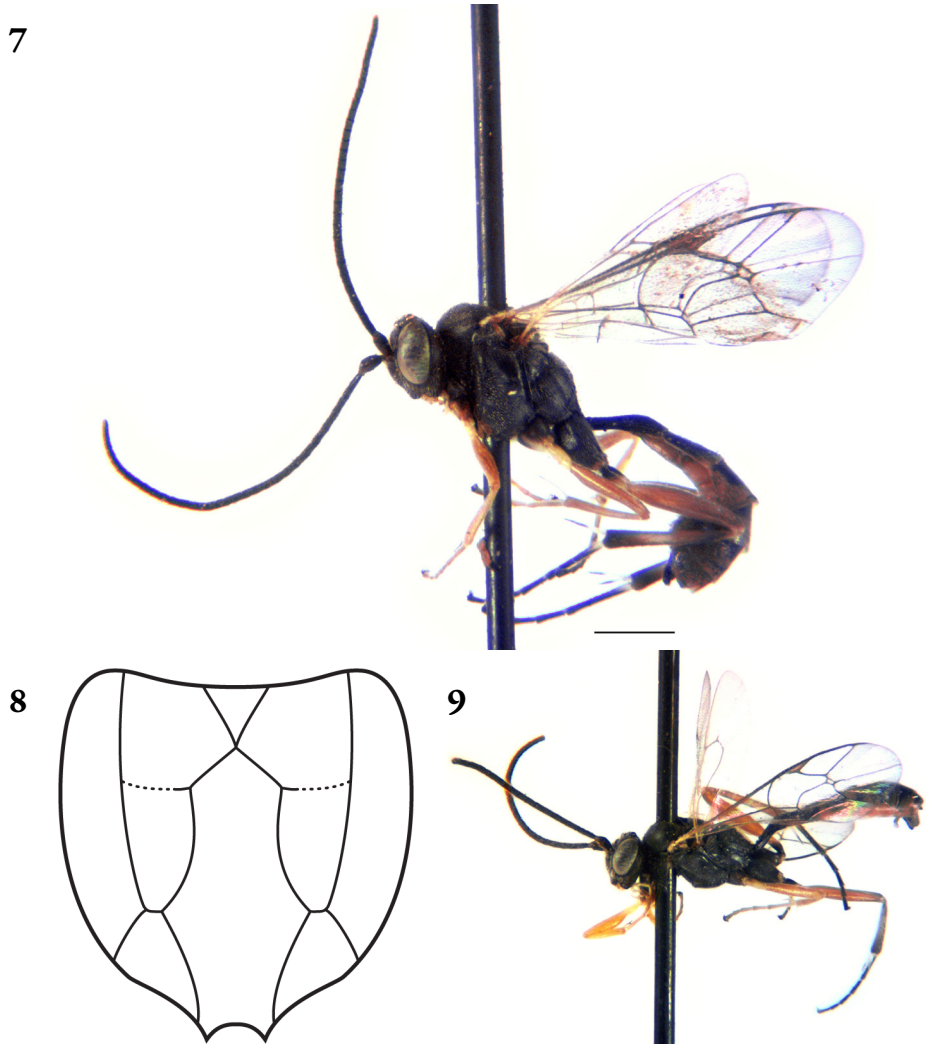
Male (Fig. 9): Similar to female in all characters described above, except: distance between lateral ocelli 1.3–1.5× as long as ocellus diameter; gena in dorsal view 0.4–0.5× as long as eye width; area superomedia more elongate than in female, 1.1–1.3× as long as wide; area petiolaris slightly more (but still relatively weakly) rugose than in female; second tergite ca. 1.2× as long as its posterior width; parameres wide, apically rounded; apical tergites often slightly darker than in female.

Distribution – Argentina, Rio Negro and Chubut Provinces.

Etymology – The specific epithet *vittatus* is the masculine form of the Latin adjective *vittatus, -a, -um*, meaning banded, in allusion to the colouration of the metasoma of the new species.

Remarks on identification – The new species, with its conspicuously convex, apically distinctly impressed clypeus (in profile), and its banded colouration of hind tibia and metasoma, cannot be confused with any known Neotropical species of the genus. *Hyposoter exiguae* (Viereck, 1912), a species known from Mexico, the USA, and Canada, may be superficially similar to the new species. However, this species can be easily distinguished from the new species by its flat clypeus (in profile), much more extensively orange-coloured metasoma (apical half of postpetiolus, apical two-thirds or more of second tergite orange, following

tergites usually entirely but at least predominantly orange), and externo-medially whitish, interno-medially reddish hind tibia. The new species is also somewhat similar in colouration to *Hyposoter didymator* (Thunberg, 1822), a widely distributed Palaearctic species, which is also present in the Australasian Region. However, this species can be readily separated from the new species by its almost flat clypeus (in profile), polished to subpolished speculum, posteriorly at least partially closed area superomedia, distinctly rugose area petiolaris, and externo-medially whitish, interno-medially reddish hind tibia.



Figures 7–9. *Hyposoter vittatus* sp. nov., 7 = holotype female, scale bar = 1 mm, 8 = propodeum, dorsal view, 9 = paratype male (photos by Zoltán Vas, drawing by Viktória Szőke)

Genus: *Campoletis* Förster, 1869

Type species: *Mesoleptus tibiator* Cresson, 1864; subsequent designation by Houghton (1907)

Diagnosis: Townes (1970), Riedel (2017)

Campoletis argentifrons (Cresson, 1864)

Material examined – Argentina: Rio Negro Province, El Bolsón, 2.II.–4.XI.1961, leg. Gy. Topál, 29 females, 16 males; Chubut Province, El Hoyo, 10–11.XI.1961, leg. Gy. Topál, seven females. All specimens are deposited in the Hymenoptera Collection of the HNHM.

Remarks – First records from Argentina. The species is widely distributed in the New World, and has been known from Brazil, Canada, Peru, USA, and Uruguay so far (Yu *et al*. 2016).

*

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Topál György dél-argentínai gyűjtőútjának zoológiai eredményei. 28. Ichneumonidae: Campopleginae: *Hyposoter* Förster, 1869 és *Campoletis* Förster, 1869 (Hymenoptera)

Vas Zoltán

Magyar Nemzeti Múzeum Közgyűjteményi Központ – Magyar Természettudományi Múzeum, Állattár, Hártyásszárnyúak gyűjteménye, 1088 Budapest, Baross u. 13., Magyarország.
E-mail: vas.zoltan@nhmus.hu; https://orcid.org/0000-0002-1361-180X

Összefoglalás – Jelen közlemény eredményei Topál György 1961-es argentínai gyűjtőútjának anyagán alapulnak. Három tudományra új, neotropikus fürkészdarázsfaj (Hymenoptera: Ichneumonidae: Campopleginae) kerül leírásra: *Hyposoter tenebricus* sp. nov., *Hyposoter topali* sp. nov. és *Hyposoter vittatus* sp. nov., illetve a *Campoletis argentifrons* (Cresson, 1864) első argentin előfordulási adatait is közli a szerző. Kilenc ábrával.

Kulcsszavak – fajleírás, neotropikus régió, taxonómia, Topál György

ÁBRAMAGYARÁZAT

1–3. ábrák. *Hyposoter tenebricus* sp. nov., 1 = holotípus nőstény, méretléc = 1 mm, 2 = áltorszelvény felülnézete, 3 = paratípus hím (Vas Zoltán fotói, Szőke Viktória rajza)

4–6. ábrák. *Hyposoter topali* sp. nov., 4 = holotípus nőstény, méretléc = 1 mm, 5 = áltorszelvény felülnézete, 6 = paratípus hím (Vas Zoltán fotói, Szőke Viktória rajza)

7–9. ábrák. *Hyposoter vittatus* sp. nov., 7 = holotípus nőstény, méretléc = 1 mm, 8 = áltorszelvény felülnézete, 9 = paratípus hím (Vas Zoltán fotói, Szőke Viktória rajza)