

**The zoological results of Gy. Topál's collectings in South Argentina. 27.
Ichneumonidae: Campopleginae: *Diadegma* Förster, 1869
(Hymenoptera)**

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Abstract – Taxonomical results published in this paper are based on the Neotropical Campopleginae (Hymenoptera: Ichneumonidae) material collected in Argentina by György Topál in 1961, and by Andor Kovács in 1959. In this paper, the genus *Diadegma* Förster, 1869 is treated, and three new species are described: *Diadegma kovacsi* sp. nov., *Diadegma topali* sp. nov., and *Diadegma vezenyii* sp. nov. With seven photos.

Key words – Andor Kovács, Árpád Vezényi, 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 (hereafter abbreviated by its usual and internationally recognised acronym in the taxonomical literature: HNHM), and have been achieved in the frame of the ongoing identification progress in the Hymenoptera Collection of the HNHM, focusing primarily on old, still unidentified expedition materials.

The ichneumon wasps (Hymenoptera: Ichneumonidae) treated in this paper were collected in Argentina, Rio Negro Province, El Bolsón, mostly in 1961 by György Topál (1931–2016, mammologist researcher and curator of the HNHM), except a few specimens which were collected in the same place in 1959 by Andor Kovács (1903–1999, Hungarian ornithologist who lived in Argentina since the 1950s, and hosted Topál's one-year long expedition in 1961). The identification of the ichneumon wasps gathered by Topál's expedition was intended by Erzsébet Bajári (1912–1963, hymenopterist and curator of the HNHM). However, due

to her sudden death in 1963 and to the lack of a curator specialised in Ichneumonidae in the HNHM for the following more than 50 years, the material remained unidentified and virtually untouched.

Recently, the identification progress of the Neotropical Campopleginae housed in the HNHM has been started, already resulting two species new to science (*Nemeritis centurio* Vas, 2024 from Argentina and *Campoletis yaga* Vas, 2024 from Chile) (VAS 2024a, b) and faunistic records new to Argentina and Paraguay (VAS 2023, 2024b). It is worth noting that the holo- and paratype specimens of *N. centurio* and the voucher specimens provided the first Argentinian record of *C. yaga* were also collected by Topál in the same expedition.

Since 1961, many papers were published entirely or partly about the results of Topál's expedition in Argentina, regarding various animal taxa, most of them sequenced under the common title "The zoological results of Gy. Topál's collectings in South Argentina". Despite the more than 60 years delay of the results regarding ichneumon wasps from Topál's material, it is only appropriate to revive and continue this titled series in honour of the late collector. To my best knowledge, the last paper of the series under the common title was numbered as 24th (NÉGRE 1973). However, at the bottom of the first page of RÜCKER (1979) there is a remark that it was considered the 26th paper of the series, but without any indication in its title. No paper numbered as 25th have been found; however, two different papers were published as the 21st of the series (WERNER 1967, HINTON 1970), so there is a possibility that RÜCKER (1979) was considered as 26th instead of 25th in order to correct this mistake, however not in a quite straightforward way. Without any indication to the existence of the 27th or any subsequent parts in the series, I have decided to continue the original titled series from this number on, thus reviving the original series after 45 years.

In this paper, the genus *Diadegma* Förster, 1869 is treated. It is one of the most species-rich genus of the subfamily Campopleginae with nearly 250 valid species worldwide, which are koinobiont endoparasitoids of (almost exclusively) lepidopteran larvae, including several pests (YU *et al.* 2016). However, *Diadegma* species of the Neotropics have been rather poorly studied: prior to this study, only ten valid species were known to occur in the region (YU *et al.* 2016), and the last species description from the region was published more than 100 years ago (BRETHES 1923). In this paper, three new *Diadegma* species are described from Argentina, while previously only two species (*Diadegma insulare* (Cresson, 1865) and *Diadegma leontiniae* Brethes, 1923) were recorded from the country. These results, together with VAS (2024a, b), clearly support ARAUJO & DI GIOVANNI (2021) in their conclusion that the apparently low diversity of Campopleginae in the Neotropics is seriously misleading, and is only explained by the lack of studies. The diversity of the subfamily in the Neotropical region is undoubtedly much higher than it currently seems.

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 HALIDAY (1836), SPINOLA (1851), CRESSON (1864, 1872), ASHMEAD (1890, 1894), CAMERON (1904), VIREECK (1905, 1906, 1916, 1917, 1925), BRETHERS (1913), MORLEY (1913), ENDERLEIN (1921), TOWNES & TOWNES (1966), WALLEY (1967), HORSTMANN (1969, 1973), AUBERT (1970), TOWNES (1970), DBAR (1984), VAS (2022), AZIDAH *et al.* (2000), and on examination of adequate type materials (at least from photos of scientific quality). The specimens were identified by the author using a Nikon SMZ645 stereoscopic microscope.

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.

Label data of specimens are given verbatim, with explanations and additions (mostly from TOPÁL (1963)) in square brackets. Taxa are listed in alphabetical order. All the newly described species are dedicated to the memories of Hungarian zoologists who collected valuable Neotropical materials for the HNHM (see e.g., VIG (2024)).

TAXONOMY

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

Genus: *Diadegma* Förster, 1869

Type species: *Campoplex crassicornis* Gravenhorst, 1829; subsequent designation by VIREECK (1914)

Diagnosis: HORSTMANN (1969), TOWNES (1970), GAULD (1984)

***Diadegma kovacsi* sp. nov.**

(Figs 1–2)

Type material – Holotype: female, “Argentina, El Bolsón, 1959.X.25, leg. Kovács A.”, specimen pinned, id. HNHM-HYM 155285; 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: body relatively stout; gena in dorsal view 0.5× as long as eye width, roundly narrowed behind eyes; occipital carina complete; mesopleuron granulate with small, weak, dense punctures, speculum finely granulate; propodeal carinae distinct, except median section of posterior transverse carina absent; area basalis short, triangular, posteriorly merged into a single median carina; area superomedia pentagonal, about as long as wide, its lateral sides weakly convergent behind costulae, junction with area petiolaris distinct; areolet short-stalked, *2m-cu* slightly distal to middle of areolet; nervulus (*cu-a*) postfurcal; metasoma relatively short, weakly compressed; first tergite without dorsolateral depression above spiracle, glymma strong; second tergite 1.4× as long as its apical width; posterior margin of sixth tergite deeply, triangularly excised, posterior margin of seventh tergite widely concave; ovipositor sheath 1.2× as long as hind tibia; scapus and pedicellus dark; tegula yellow; metasoma black; all coxae and trochanters black; hind femur reddish orange; hind tibia reddish orange, basally indistinctly paler, subbasally slightly darker, apically narrowly brownish, banded pattern indistinct.



Figure 1. *Diadegma kovacsi* sp. nov., holotype female, scale bar = 1 mm (photo by Zoltán Vas)

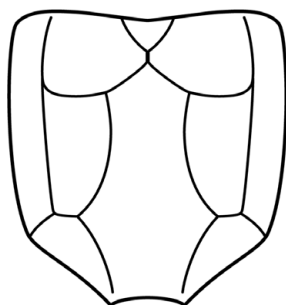


Figure 2. *Diadegma kovacsi* sp. nov., propodeum, dorsal view (drawing by Viktória Szőke)

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

Head: Antenna with first flagellomere ca. $4\times$ as long as its apical width. Head transverse, matt, granulate, impunctate except a few, weak punctures on clypeus, and with dense, short hairs. Ocular-ocellar distance as long as ocellus diameter, distance between lateral ocelli $1.5\times$ as long as ocellus diameter. Inner eye orbits barely indented, almost parallel. Gena in dorsal view $0.5\times$ 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 almost flat, slightly impressed above toruli, median longitudinal carina absent. Face with very fine, indistinct rugulae on granulate surface, weakly convex in profile. Clypeus granulate with a few, weak punctures, almost flat, its apical margin weakly convex, moderately sharp. Malar space $0.7\times$ as long as basal width of mandible. Lower margin of mandible with a wide carina from base towards teeth, flange gradually narrowed before teeth; mandibular teeth subequal.

Mesosoma: Mesosoma stout, matt, granulate, virtually impunctate except on mesopleuron and scutellum, and with dense, short hairs. Pronotum with distinct, transverse and diagonal wrinkles on lower half; epomia rather weak. Mesoscutum slightly longer than wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum with rather weak and small, indistinct punctures, convex in profile, lateral carinae not developed. Mesopleuron granulate with small, weak, dense punctures; speculum finely granulate, matt. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it slightly below its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, elevated. Metanotum ca. $0.5\times$ as long as scutellum, anteriorly with a pair of foveae. Metapleuron without juxtacoxal carina, metepisternal pit not passed by carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, strong; propodeal spiracle oval, separated from pleural carina by about its length, connected to

pleural carina by a distinct ridge. Propodeum short, strongly convex in profile, posteriorly not produced, posterior two-thirds transversely rugose. Propodeal carinae distinct, except median section of posterior transverse carinae absent. Area basalis short, triangular, about as long as its anterior width, posteriorly merged into a single median carina. Area superomedia granulate with fine rugae, pentagonal, about as long as wide, weakly convergent behind costulae, posteriorly opened. Area petiolaris wide, transversely rugose, medially slightly impressed, confluent with area superomedia, their junction distinct. Fore wing with short-stalked, petiolate areolet, *3rs-m* present, second recurrent vein (*2m-cu*) slightly distal to middle of areolet; distal abscissa of *Rs* almost straight; nervulus (*cu-a*) postfurcal by about its width, weakly inclivous; postnervulus (abscissa of *Cu1* between *1m-cu* and *Cu1a* + *Cu1b*) intercepted at about 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*) slightly reclinous, not intercepted by discoidella (*Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur 5× as long as high. Inner spur of hind tibia ca. 0.55× as long as first tarsomere of hind tarsus. Tarsal claws small, barely longer than arolium, basally pectinate.

Metasoma: Metasoma relatively short and stout, weakly compressed, finely granulate to shagreened, and with moderately dense, short hairs. First tergite 3× as long as its apical width, 1.2× as long as second tergite, without dorsolateral depression above spiracle; glymma strong, deep; dorsomedian carina of first tergite weak. Second tergite 2× as long as its basal width, 1.4× as long as its apical width, 1.3× as long as third tergite; thyridium subcircular, its distance from basal margin of tergite about as long as its length. Posterior margin of sixth tergite deeply, triangularly excised; posterior margin of seventh tergite distinctly, widely concave. Ovipositor sheath long, 1.2× as long as hind tibia; ovipositor distinctly, evenly upcurved, dorsal preapical notch distinct, ventral valve without longitudinal ridges.

Colour: Antenna, including scapus and pedicellus, blackish to dark brown. Head black, palpi yellowish, mandible basally blackish, medially yellow, mandibular teeth brownish. Mesosoma black, tegula pale yellow. Metasoma black. Wings hyaline, wing veins brown, pterostigma ochre. Fore and middle legs: coxae black; trochanters black with very narrow, yellowish apices; trochantelli yellowish; femora orange; tibiae orange, externally more or less paler; tarsi yellowish orange, apical tarsomeres darkened. Hind leg: coxa black; trochanter black; trochantellus predominantly blackish; femur reddish orange; tibia reddish orange, basally indistinctly paler, subbasally slightly darker, apically narrowly brownish, banded pattern indistinct; tarsus brown, except base of first tarsomere pale yellowish.

Male: Unknown.

Distribution – Province Rio Negro, Argentina.

Etymology – The new species is dedicated to the memory of Andor Kovács (1903–1999), collector of the holotype specimen, a Hungarian ornithologist and museum specimen collector who lived in Argentina since the 1950s, and greatly contributed to the richness of natural history collections worldwide, including the HNHM; the specific epithet is proper noun in the genitive case.

Remarks on identification – The new species is not quite similar to any known species of the genus, and can be reliably identified based on the diagnosis above. Among the Neotropical *Diadegma* species, due to sharing the characteristic of having long ovipositor (i.e., ovipositor sheath is longer than hind tibia), the new species is most similar to the Mexican species *Diadegma longicauda* (Cameron, 1904); however, this species can be easily distinguished from the new species by its distinctly banded, externo-medially yellow hind tibia. Among the species of other biogeographical regions, *Diadegma kovacsi* sp. nov. is most similar to the Western Palaearctic *Diadegma longicaudatum* Horstmann, 1969, also due to the long ovipositor; however, this species can be readily distinguished from the new species by its straight, not excised posterior margin of sixth tergite.

***Diadegma topali* sp. nov.**

(Figs 3–5)

Type material – Holotype: female, “S. Arg. [= South Argentina], Rio Negro [Province], El Bolsón, [leg. Gy.] Topál, Nr. 639 [= Loma del Medio, 350 m, beaten from plants in inundation area of Rio Quemquemtreu], 18.X.[19]61”, specimen pinned, id. HNHM-HYM 155286; deposited in the Hymenoptera Collection of the HNHM. Paratype: male, “S. Arg. [= South Argentina], Rio Negro [Province], El Bolsón, [leg. Gy.] Topál, Nr. 357 [= Pampa Azcona, 350 m, beaten from various trees, mainly *Myrceugenia exsupta* after blossoming, near Arroyo Negro], 27.III.[19]61”, specimen pinned, id. HNHM-HYM 155287; 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: body slender, metasoma conspicuously elongate, especially in female; gena moderately short, roundly narrowed behind eyes; occipital carina complete; mesopleuron granulate with small, weak punctures on lower half; speculum polished to subpolished; propodeum weakly convex, posteriorly distinctly produced; propodeal spiracle conspicuously small; propodeum with longitudinal carinae weak to obsolescent but discernible, transverse carinae obsolete except median section of anterior transverse carina distinct; area basalis short, triangular; area superomedia pentagonal, about as long as wide, laterally barely defined in female; areolet short-stalked, *2m-cu* distal to middle of areolet; nervulus (*cu-a*) interstitial to weakly postfurcal; first tergite without dorsolateral depression above spiracle, glymma distinct; second tergite 3× as long as its apical width in female, 2.3× as long as its apical width in male;

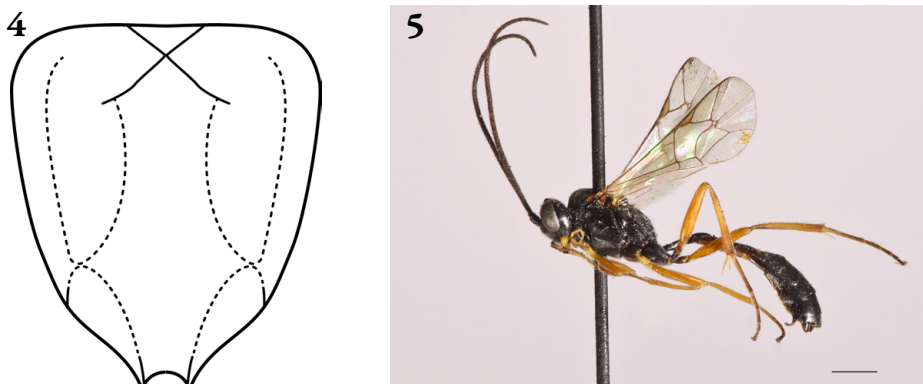
posterior margins of third to fifth tergites distinctly concave, posterior margins of sixth and seventh tergites deeply, triangularly excised in female; ovipositor sheath $0.8\times$ as long as hind tibia, ovipositor slender, weakly upcurved, ventral valve with fine longitudinal ridges; scapus and pedicellus dark; tegula yellow; metasoma black; fore coxa yellow, at least basal third distinctly darkened, middle coxa blackish, at most narrowly yellowish at apex, hind coxa black; hind femur orange; hind tibia orange, apically weakly, indistinctly, narrowly darkened.

Description – Female (Figs 3–4). Body length ca. 6.5 mm, fore wing length ca. 4.5 mm.

Head: Antenna with first flagellomere ca. $4\times$ as long as its apical width. Head transverse, matt, granulate, virtually impunctate, and with dense, short hairs. Ocular-ocellar distance $1.3\times$ as long as long as ocellus diameter, distance between lateral ocelli $1.8\times$ as long as ocellus diameter. Inner eye orbits barely indented, almost parallel. Gena in dorsal view $0.5\times$ as long as eye width, moderately, roundly narrowed behind eyes. Occipital carina complete, ventrally slightly out-curved, reaching hypostomal carina little before base of mandible; hypostomal carina slightly elevated. Frons almost flat, slightly impressed above toruli, median longitudinal carina absent. Face and clypeus almost flat in profile; apical margin of clypeus convex, sharp. Malar space $0.7\times$ as long as basal width of mandible. Lower margin of mandible with a wide carina from base towards teeth, flange gradually narrowed before teeth; upper mandibular tooth slightly longer than lower tooth.



Figure 3. *Diadegma topali* sp. nov., holotype female, scale bar = 1 mm (photo by Zoltán Vas)



Figures 4–5. *Diadegma topali* sp. nov., 4 = propodeum, dorsal view; 5 = paratype male, scale bar = 1 mm (photo by Zoltán Vas, drawing by Viktória Szőke)

Mesosoma: Mesosoma moderately elongate, matt, granulate, virtually impunctate with only minute, barely discernible traces of punctures, and with dense, short hairs. Pronotum with distinct, transverse and diagonal wrinkles on lower half; epomia weak. Mesoscutum slightly longer than wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carinae not developed. Mesopleuron granulate with minute, barely discernible punctures on lower half; speculum large, smooth, shiny. Epicnemial carina complete, moderately strong, pleural part bent to anterior margin of mesopleuron reaching it slightly below its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, not elevated. Metanotum ca. 0.6× as long as scutellum, anteriorly with a pair of foveae. Metapleuron without juxtacoxal carina, metepisternal pit interrupts passing carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, strong; propodeal spiracle conspicuously small, circular, separated from pleural carina by almost 2× its length, connected to pleural carina by a distinct ridge. Propodeum elongate, weakly convex in profile, posteriorly distinctly produced, its apex reaching almost 0.4× length of hind coxa in dorsal view; surface granulate, posterior two-thirds irregularly to transversely rugose. Propodeal carinae strongly reduced, longitudinal carinae rather weak and obsolescent but more or less discernible, transverse carinae obsolete except median section of anterior transverse carina distinct. Area basalis triangular, 0.6× as long as its anterior width. Area superomedia granulate with fine rugae, pentagonal, about as long as wide, laterally barely defined, posteriorly opened. Area petiolaris confluent with area superomedia, moderately narrow, transversely rugose, medially slightly impressed. Fore wing with short-stalked, petiolate areolet, *3rs-m* present, second recurrent vein (*2m-cu*) close to distal corner of areolet; distal abscissa of *Rs* almost straight; nervulus (*cu-a*) interstitial, weakly 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*) vertical, not intercepted by discoidella (*Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur 5.5× as long as high. Inner spur of hind tibia ca. 0.5× as long as first tarsomere of hind tarsus. Tarsal claws small, barely longer than arolium, basally with few, weak pecten.

Metasoma: Metasoma conspicuously elongate, strongly compressed, finely granulate to shagreened, and with dense, short hairs. First tergite very slender, 4× as long as its apical width, as long as second tergite, without dorsolateral depression above spiracle; glymma distinct; dorsomedian carina of first tergite weak, only basally discernible. Second tergite very slender, 3× as long as its apical width, 1.5× as long as third tergite, its lateral sides almost parallel along its entire length in dorsal view; thyridium subcircular, its distance from basal margin of tergite ca. 3× as long as its length. Third tergite slender, 1.6× as long as its apical width. Posterior margins of third to fifth tergites distinctly concave, posterior margins of sixth and seventh tergites deeply, triangularly excised. Ovipositor sheath moderately short, 1.8× as long as anterior width of sixth tergite in profile, 1.2× as long as first tergite, 0.8× as long as hind tibia; ovipositor slender, weakly upcurved, dorsal preapical notch distinct, ventral valve with fine longitudinal ridges.

Colour: Antenna, including scapus and pedicellus, blackish to dark brown. Head black, palpi pale yellow, mandible yellow, mandibular teeth brownish. Mesosoma black, tegula pale yellow. Metasoma black. Wings hyaline, wing veins brown, pterostigma light brown. Fore leg: coxa yellow, basal third distinctly darkened, brown; trochanter and trochantellus yellow; rest of leg yellowish orange, apical tarsomeres darkened. Middle leg similar to fore leg except coxa blackish, only narrowly yellowish at apex. Hind leg: coxa black; trochanter black, narrowly yellowish at apex; rest of leg orange, except tibia apically rather weakly, indistinctly, narrowly darkened, and tarsus predominantly brownish.

Male (Fig. 5): Similar to female in all characters described above, except: clypeus with a few, weak punctures; ocular-ocellar distance 1×, distance between lateral ocelli 1.4× as long as ocellus diameter; gena in dorsal view 0.65× as long as eye width; speculum subpolished; propodeum more strongly rugose, slightly less elongate and less produced posteriorly than in female; propodeal carinae weak but more distinct than in female, costula obsolescent but discernible; nervulus weakly postfurcal; nervellus weakly reclivous; metasoma less elongate and less compressed than in female; second tergite 2.3× as long as its apical width; posterior margins of middle and apical tergites slightly concave, almost straight; apex of paramere broadly concave; hind trochantellus extensively dark brown.

Distribution – Province Rio Negro, Argentina.

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.

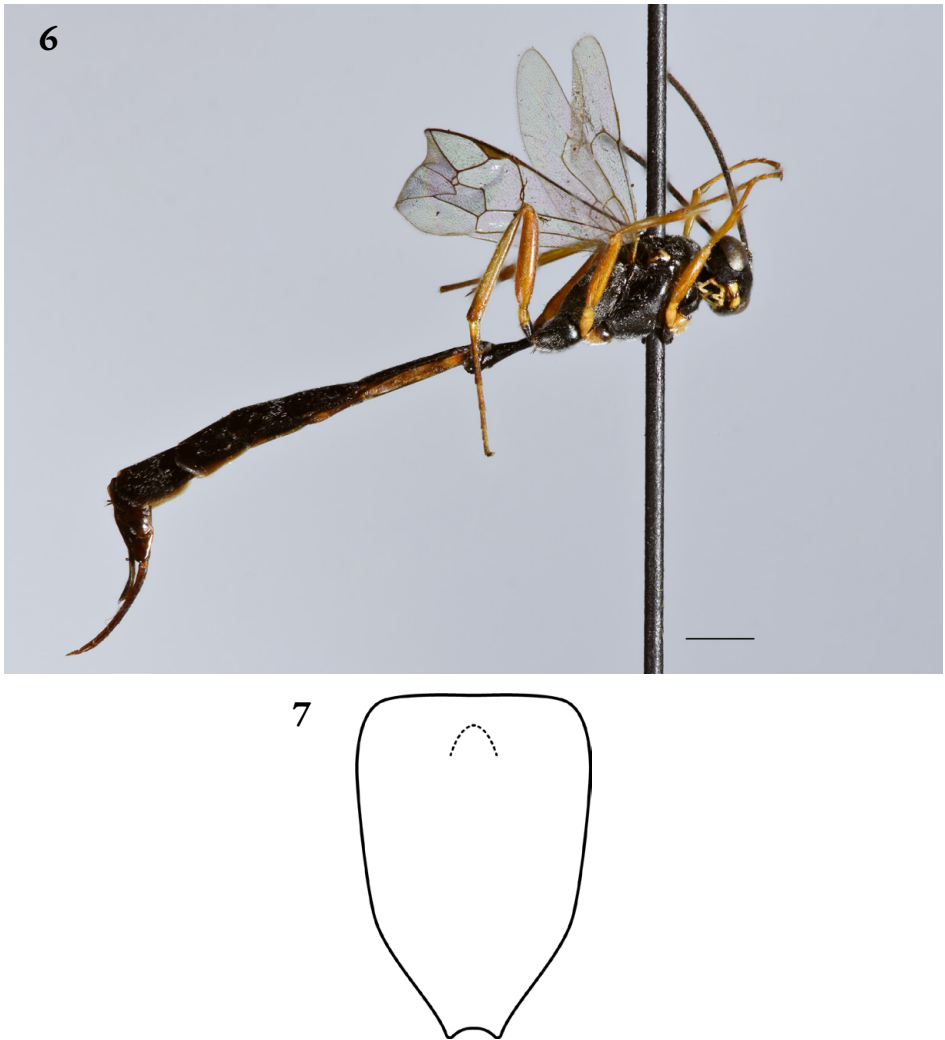
Remarks on identification – The new species belongs to the “stenosomum species group” sensu WALLEY (1967), characterised by conspicuously elongate propodeum and metasoma, and the presence of fine longitudinal ridges on the ventral valve of ovipositor. By using the identification key to the New World species of this group (WALLEY 1967), the new species runs to couplet 6, together with *Diadegma carolina* Walley, 1967 and *Diadegma californicum* Walley, 1967, however without matching to any halves of couplet 6. *Diadegma topali* sp. nov. can be readily distinguished from *D. carolina* by the colouration of hind tibia (distinctly black and white banded in *D. carolina*) and propodeal carination (quite different in *D. carolina*, cf. WALLEY (1967): fig. 5), and from *D. californicum* by the colouration of coxae and trochanters (all black in *D. californicum*) and the propodeal carination (stronger and more developed in *D. californicum*, cf. WALLEY (1967): fig. 3).

Diadegma vezenyii sp. nov.

(Figs 6–7)

Type material – Holotype: female, “S. Arg. [= South Argentina], Rio Negro [Province], El Bolsón, [leg. Gy.] Topál, Nr. 301 [= 350 m, netted along Arroyo Negro], 6.III.[19]61”, specimen pinned, id. HNHM-HYM 155288; 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: body slender, metasoma conspicuously elongate; gena moderately short, roundly narrowed behind eyes; occipital carina complete; mesopleuron granulate with small, weak punctures on lower half, speculum polished; propodeum conspicuously elongate, rather weakly convex in profile, posteriorly strongly produced; propodeal spiracle conspicuously small; propodeal carinae almost entirely absent, except the obsolete, barely discernible, short and narrowly opened median section of anterior transverse carina; propodeal areae not delimited; areolet short-stalked, *2m-cu* distal to middle of areolet; nervulus (*cu-a*) weakly postfurcal; first tergite without dorsolateral depression above spiracle, glymma small but distinct; second tergite $4\times$ as long as its apical width; posterior margins of third and following tergites deeply, triangularly excised; ovipositor sheath $0.4\times$ as long as hind tibia, ovipositor strong, distinctly upcurved, ventral valve with fine longitudinal ridges; scapus and pedicellus dark; tegula yellow; metasoma black; fore and middle coxae orange, basally blackish, hind coxa black; hind femur orange; hind tibia orange, apically weakly, narrowly darkened.



Figures 6–7. *Diadegma vezenyii* sp. nov., 6 = holotype female, scale bar = 1 mm; 7 = propodeum, dorsal view (photo by Zoltán Vas, drawing by Viktória Szőke)

Description – Female (Figs 6–7). Body length ca. 9.5 mm, fore wing length ca. 7 mm.

Head: Antenna with first flagellomere ca. 4× as long as its apical width. Head transverse, matt, granulate, virtually impunctate, and with dense, short hairs. Ocular-ocellar distance as long as long as ocellus diameter, distance between lateral ocelli 1.5× as long as ocellus diameter. Inner eye orbits weakly

indented, subparallel. Gena in dorsal view $0.5\times$ as long as eye width, moderately, roundly narrowed behind eyes. Occipital carina complete, ventrally slightly out-curved, reaching hypostomal carina little before base of mandible; hypostomal carina slightly elevated. Frons almost flat, slightly impressed above toruli, median longitudinal carina absent. Face and clypeus almost flat in profile; apical margin of clypeus convex, moderately sharp. Malar space $0.6\times$ as long as basal width of mandible. Lower margin of mandible with a wide carina from base towards teeth, flange gradually narrowed before teeth; upper mandibular tooth slightly longer than lower tooth.

Mesosoma: Mesosoma elongate, matt, granulate, virtually impunctate with minute, barely discernible traces of punctures, and with dense, short hairs. Pronotum with distinct, transverse and diagonal wrinkles on lower half; epomia distinct. Mesoscutum slightly longer than wide, convex in profile; notaulus not developed. Scuto-scutellar groove wide and deep. Scutellum convex in profile, lateral carinae not developed. Mesopleuron granulate with minute, barely discernible traces of punctures on lower half; speculum large, smooth, shiny. Epicnemial carina complete, strong, pleural part bent to anterior margin of mesopleuron reaching it slightly below its middle height. Sternaulus indistinct. Posterior transverse carina of mesosternum complete, slightly elevated. Metanotum ca. $0.5\times$ as long as scutellum, anteriorly with a pair of foveae. Metapleuron without juxtacoxal carina, metepisternal pit interrupts passing carina; submetapleural carina complete, elevated. Pleural carina of propodeum complete, moderately strong; propodeal spiracle conspicuously small, subcircular, separated from pleural carina by ca. $1.5\times$ its length, connected to pleural carina by an obsolescent ridge. Propodeum conspicuously elongate, rather weakly convex in profile, posteriorly strongly produced, its apex reaching slightly beyond $0.5\times$ length of hind coxa in dorsal view, medially slightly impressed; surface roughly granulate with fine, dense rugosity. Propodeal carinae reduced, almost entirely absent, except the obsolete, barely discernible, short and narrowly opened median section of anterior transverse carina. Propodeal areae not delimited. Fore wing with short-stalked, petiolate areolet, *3rs-m* present, second recurrent vein (*2m-cu*) close to distal corner of areolet; distal abscissa of *Rs* slightly bent towards anterior wing margin; nervulus (*cu-a*) postfurcal by about its width, almost vertical; 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*) reclivous, not intercepted by discoidella (*Cu1*); discoidella spectral, proximally not connected to nervellus. Coxae finely granulate. Hind femur $5.5\times$ as long as high. Inner spur of hind tibia ca. $0.55\times$ as long as first tarsomere of hind tarsus. Tarsal claws small, barely longer than arolium, basally with few, distinct pecten.

Metasoma: Metasoma rather conspicuously elongate, more than $2\times$ as long as combined length of head and mesosoma, very strongly compressed, finely

granulate to shagreened, and with moderately dense, short hairs. First tergite very slender, ca. $4.5\times$ as long as its apical width, as long as second tergite, without dorsolateral depression above spiracle; glymma relatively small but distinct; dorsomedian carina of first tergite rather weak. Second tergite very slender, $4\times$ as long as its apical width, $1.6\times$ as long as third tergite, its lateral sides almost parallel along its entire length in dorsal view; thyridium elongate oval, its distance from basal margin of tergite ca. $1.5\times$ as long as its length. Third tergite slender, $3\times$ as long as its apical width. Posterior margins of third and following tergites deeply, triangularly excised. Ovipositor sheath short, $1.1\times$ as long as anterior width of sixth tergite in profile, $0.6\times$ as long as first tergite, $0.4\times$ as long as hind tibia; ovipositor strong, distinctly upcurved, dorsal preapical notch distinct, ventral valve with fine longitudinal ridges.

Colour: Antenna, including scapus and pedicellus, black to dark brown. Head black, palpi and mandible yellow, mandibular teeth brownish. Mesosoma black, tegula yellow. Metasoma black. Wings hyaline, wing veins and pterostigma brown. Fore and middle legs orange, except coxae basally blackish, in middle coxa up to basal half. Hind leg: coxa black; trochanter black, narrowly yellowish at apex; rest of leg orange, except tibia apically weakly, narrowly darkened, and tarsus more or less brownish.

Male: Unknown.

Distribution – Province Rio Negro, Argentina.

Etymology – The new species is dedicated to the memory of Árpád Vezényi (1876–1960), Hungarian ornithologist, who collected valuable zoological material for the HNHM in Argentina and Paraguay, mainly between 1904 and 1906; the specific epithet is proper noun in the genitive case.

Remarks on identification – The new species belongs to the “stenosomum species group” sensu WALLEY (1967), characterised by conspicuously elongate propodeum and metasoma, and the presence of fine longitudinal ridges on the ventral valve of ovipositor. By using the identification key to the New World species of this group (WALLEY 1967), the new species keys out with *Diadegma pulicalvariae* Walley, 1967 at couplet 3, however without complete match to the characteristics given in the couplet. *Diadegma vezenyii* sp. nov. can be readily distinguished from *D. pulicalvariae* by the almost entirely absent propodeal carinae of the new species (in *D. pulicalvariae* carination anteriorly distinct, cf. WALLEY (1967): fig. 2) and the colouration of legs (in *D. pulicalvariae* fore and middle coxae entirely yellowish, hind femur basally and apically infusate, hind tibia basally pale yellow, subbasally and apically dark brown, its banded pattern distinct).

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**Topál György dél-argentínai gyűjtőútjának zoológiai eredményei. 27.
Ichneumonidae: Campopleginae: *Diadegma* Förster, 1869
(Hymenoptera)**

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Összefoglalás – Jelen közleményben három tudományra új, neotropikus fürkészdarázsfaj kerül leírásra: *Diadegma kovacsi* sp. nov., *Diadegma topali* sp. nov. és *Diadegma vezenyii* sp. nov. (Hymenoptera: Ichneumonidae: Campopleginae). Az eredmények főként Topál György 1961-es argentínai gyűjtőútjának anyagán alapulnak, kisebb részben pedig Kovács Andor ugyanott, 1959-ben gyűjtött példányain. Hét ábrával.

Kulcsszavak – fajleírás, Kovács Andor, neotropikus régió, taxonómia, Topál György, Vezényi Árpád

ÁBRAMAGYARÁZAT

1. **ábra.** *Diadegma kovacsi* sp. nov., holotípus nőstény, méretléc = 1 mm (Vas Zoltán fotója)
2. **ábra.** *Diadegma kovacsi* sp. nov., áltorszelvény felülnézete (Szőke Viktória rajza)
3. **ábra.** *Diadegma topali* sp. nov., holotípus nőstény, méretléc = 1 mm (Vas Zoltán fotója)
- 4–5. **ábrák.** *Diadegma topali* sp. nov., 4 = áltorszelvény felülnézete; 5 = paratípus hím, méretléc = 1 mm (Vas Zoltán fotója, Szőke Viktória rajza)
- 6–7. **ábrák.** *Diadegma vezenyii* sp. nov., 6 = holotípus nőstény, méretléc = 1 mm; 7 = áltorszelvény felülnézete (Vas Zoltán fotója, Szőke Viktória rajza)