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Contribution to the knowledge of Palaearctic species of *Mesochorus* GRAVENHORST: Subgenus *Stictopisthus* THOMSON (Hymenoptera, Ichneumonidae, Mesochorinae)

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A b s t r a c t: In this taxonomical survey, species of *Mesochorus* GRAVENHORST (subgenus *Stictopisthus* THOMSON) from the Palaearctic region are studied.

New species are: *Mesochorus* (*Stictopisthus*) *longistylus* nov.sp. from Italy, *Mesochorus* (*Stictopisthus*) *mandibulator* nov.sp. from Mongolia, *Mesochorus* (*Stictopisthus*) *nigrifrons* nov.sp. from Europe and Russia, and *Mesochorus* (*Stictopisthus*) *punjabi* nov.sp. from Pakistan.

Stictopisthus *sacromontis* SCHWENKE, 1999 is a new synonym of *Mesochorus* (*Stictopisthus*) *bilineatus* THOMSON, 1886. *Stictopisthus* *madeirensis* SCHWENKE, 1999 is a new synonym of *Mesochorus* (*Stictopisthus*) *nemoralis* (SCHWENKE, 1999). *Stictopisthus* *hispanicus* SCHWENKE, 1999 is a new synonym of *Mesochorus* (*Stictopisthus*) *flavescens* FONSCOLOMBE, 1852, and *Stictopisthus* *polonius* SCHWENKE, 1999 is a new synonym of *Mesochorus* (*Stictopisthus*) *formosus* BRIDGMAN, 1882.

Mesochorus (*Stictopisthus*) *dilutoides* is a new name for *Stictopisthus* *dilutus* SCHWENKE, 1999 preoccupied in *Mesochorus* by RATZEBURG, 1844. The unknown ♂♂ of *Mesochorus* (*Stictopisthus*) *maroccanus* (SCHWENKE, 1999) and *Mesochorus* (*Stictopisthus*) *ranini* VIKBERG, 2017 and the unknown ♀ of *Mesochorus* (*Stictopisthus*) *persicus* RIEDEL et al., 2019 are described.

All species are described and illustrated, and keys for the Palaearctic subgenera of *Mesochorus* and species of the subgenus *Stictopisthus* are provided.

K e y w o r d s: Ichneumonidae, *Mesochorus*, *Stictopisthus*, new species, Palaearctic region.

Introduction

The subgenus *Stictopisthus* THOMSON was traditionally separated from *Mesochorus* GRAVENHORST as a different genus (e. g. SCHWENKE 1999), but WAHL (1993) placed *Stictopisthus* as a synonym of *Mesochorus* in his cladistic analysis because a separation of both genera would leave *Mesochorus* as paraphyletic unit in his opinion.

At least in the Palaearctic fauna, members of *Stictopisthus* represent a group of species rather easily separable from the main bulk of *Mesochorus* by morphological features: straight (and not dipped) transverse carina below antennal sockets which are widely separated; often ± compressed mesosoma; usually narrow, slit-shaped and sometimes longitudinally ridged scuto-scutellar groove; usually confluent area basalis and area superomedia, interception of postnervulus of fore wing in or behind its middle, usually

stout and often stick-shaped ovipositor sheaths, and usually strongly postfurcal vein 1cu-a of the fore wing.

Aligned with ARAUJO et al. (2018), I propose *Stictopisthus* as a subgenus of *Mesochorus* here, until more data will help to better understand the phylogeny of the large and diverse genus *Mesochorus* in the future.

Here, I give detailed descriptions of the known West Palaearctic species of the subgenus *Stictopisthus* together with new findings from my survey of several larger collections of Mesochorinae from European museums. It is not possible yet to present a complete revision of the Palaearctic *Stictopisthus* since specimens are usually very rare in collections, and the relation of sexes is still unclear in several taxa due to the limited material. Therefore, more reared specimens and more data of genomic studies such as the barcoding project will be necessary for a comprehensive analysis of the Palaearctic species of *Stictopisthus* in the future.

Material and methods

For this survey, material of the subgenus *Stictopisthus* was examined from the following institutions and collections: Zoologische Staatssammlung Munich/Germany (ZSM), Biologiezentrum Linz/Austria (Linz), Russian Zoological Museum St. Petersburg/Russia (St. Petersburg), National Museum of Scotland Edinburgh/Scotland (EDI), and my personal collection (coll. Riedel).

For the descriptions below, morphological terms follow BROAD et al. (2018). The distributional records were taken from the catalogue of YU et al. (2016) and my own findings. New records are indicated by asterisks.

For the measurements the following relations were used: length of 1st flagellar segment was measured in lateral view (length without annellus) and length and width of hind femur in lateral view. The mesosoma was measured in lateral view with its height from tip of scutellum to mesosternum. For the punctuation of body parts, the following definitions were used: very sparse - distance between punctures $>2\times$ of the diameter of punctures; sparse - distance $1.1-2\times$ the diameter; rather dense - distance about as large as their diameter; dense - diameter larger than their distance. Stylet = visible part of the paramere apical to the wide base which is usually \pm stick-shaped and apically blunt, clubbed or pointed.

For the measurements an Olympus SZX 7 stereo microscope with dividing eyepiece was used. The figures were mainly taken with an Olympus SC 50 CCD-camera using the cellSens Imaging software and processed with the Helicon Pro software and Microsoft Office Picture Manager.

Used abbreviations

OED – distance between lateral ocellus and compound eye; OOD – distance between lateral ocelli. MI – malar index: relation of length of malar space to width of mandibular base. HT – holotype, PT – paratype.

Key to the Palaearctic subgenera of *Mesochorus*

- 1 Subantennal transverse carina dipped medially. Dorsal end of epicnemial carina usually not reaching frontal margin of mesopleuron. Vein 1cu-a of fore wing antefurcal, interstitial or moderately postfurcal (usually less than $0.5\times$ its length). Postnervulus usually intercepted in basal half. Mesosoma not depressed ($<1.8\times$ as long as high). Postpetiole often smooth or with reduced sculpture. Subgenus *Mesochorus* GRAVENHORST, 1829
- Subantennal transverse carina straight medially. Dorsal end of epicnemial carina usually reaching frontal margin of mesopleuron. Vein 1cu-a of fore wing usually strongly postfurcal (often $>0.5\times$ its length). Postnervulus often intercepted in its middle or its apical half. Postpetiole often with longitudinal striae. 2
- 2 Apex of propodeum of both sexes not reaching behind midlength of hind coxa. Ovipositor sheath usually slender, at least $4.5\times$ as long as wide, often much longer. Mesosoma sometimes \pm depressed ($>1.8\times$ as long as high). Postpetiole usually \pm longitudinally striate. Subgenus *Stictopisthus* THOMSON, 1886
- Apex of propodeum elongate, reaching behind basal 0.7 of hind coxa. Ovipositor sheath very stout, not more than $4.0\times$ as long as wide. Mesosoma not depressed. Postpetiole often \pm smooth. Subgenus *Plectochorus* UCHIDA, 1933

Key to the West Palaearctic species of the subgenus *Stictopisthus* THOMSON

Females:

- 1 Ovipositor sheath strongly narrowed apically, almost pointed at apex (figs 38-39). Face \pm infusate (figs 56-57). Hind coxa brownish or reddish. 2
- Ovipositor sheath not or slightly narrowed apically, with blunt or slightly narrowed tip (figs 41-52). Face and hind coxa variously colored, often pale. 3
- 2 Mesosoma moderately depressed, c. $2.0\times$ as long as high (fig. 3). 2nd tergite mainly yellow, with basolateral brown spots; 3rd tergite yellow basally (fig. 3). *M. dilutoides* nom. nov.
- Mesosoma not depressed, $1.7-1.8\times$ as long as high. 2nd tergite yellow in apical 0.4 , 3rd tergite brown to blackish (fig. 2). *M. cuspidatus* (SCHWENKE, 1999)
- 3 Mesosoma strongly depressed, at least $2.2\times$ as long as high (figs 4, 6, 10, 15). Distal part of metacarpus always present, usually as long as the width of pterostigma (fig. 26). ... 4
- Mesosoma not or moderately depressed, at most $2.1\times$ as long as high (figs 6, 15). Distal part of metacarpus sometimes very short or absent (fig. 25). 7
- 4 Face very wide, its width $1.4-1.5\times$ combined length of clypeus and face (fig. 72). Mesosoma very strongly depressed, $2.5-2.9\times$ as long as high (fig. 15). Pterostigma yellowish. Fore tibia short, swollen. Hind femur very stout ($<3\times$ as long as wide). Dorsal mandibular tooth often larger than ventral tooth. *M. unicolor* (THUNBERG, 1824)
- Face not as wide, its width $1.1-1.3\times$ combined length of clypeus and face (fig. 63). Mesosoma less strongly depressed, $2.2-2.4\times$ as long as high (figs 4, 6, 10). Other features variable. 5
- 5 Face and mandible strongly swollen (fig. 61). Metasoma blackish apically (fig. 83). Hind coxa reddish-brown (fig. 6). Hind tibia distinctly infusate apically. *M. macrocephalus* STROBL, 1904
- Face and mandible normal, not distinctly swollen (figs 67-72). Hind coxa and tibia variously coloured. 6

- 6 Face transversely aciculate or rugose-punctate (fig. 65). Pterostigma brown (fig. 10). Mesoscutum black, with 4 reddish stripes. Mesopleuron reddish and brownish, rather densely punctate. Hind coxa and hind femur with brownish suffusion (fig. 10). Apical tergites black or brown. *M. nemoralis* (SCHWENKE, 1999)
- Face densely punctate (fig. 58). Mesopleuron reddish, with sparse punctures. Mesoscutum brownish, with H-shaped central reddish mark or reddish with brownish lateral stripes and fronto-medial spot. Hind coxa and femur not distinctly darkened (fig. 4). Pterostigma brownish-hyaline. Apical tergites \pm vespid (fig. 74). *M. flavescens* FONSCOLOMBE, 1852
- 7 Mesoscutum with four yellow longitudinal stripes, confluent anteriorly (fig. 1). Mesopleuron densely punctate (fig. 34). Mesosoma not or moderately depressed, 1.8-2.0 \times as long as high (fig. 1). Distal part of metacarpus very short or completely absent (fig. 25). Flagellum short. 8
- Mesoscutum reddish to black, without yellow coloration. Mesosoma sometimes strongly depressed. Distal part of metacarpus often as long as width of pterostigma (fig. 26), except in *M. ranini*. Flagellum often longer. 10
- 8 Mesopleuron mainly blackish (fig. 1). Hind coxa blackish or reddish (fig. 1). MI 0.8. Hind tibia narrowly infusate apically. 1st sternite black basally. *M. bilineatus* THOMSON, 1885
- Mesopleuron largely or completely reddish (fig. 8). Hind coxa yellowish (fig. 8). MI 0.5-0.7. Hind tibia often yellow apically. 1st sternite reddish basally. 9
- 9 Propodeum entirely black. 3rd to 6th tergites \pm darkened (fig. 8). Width of face 1.2 \times combined length of clypeus and face. *M. maroccanus* (SCHWENKE, 1999)
- Apical half of propodeum red. 3rd to 6th tergites entirely yellow (fig. 12). Width of face 1.3 \times combined length of clypeus and face (fig. 67). *M. persicus* RIEDEL et al., 2019
- 10 Face yellowish or reddish (figs 68, 70). Distal part of metacarpus very short or completely absent (fig. 25). Mesopleuron often densely punctate. Hind coxa brown or yellow. 11
- Face brown or blackish centrally (figs 59, 63, 66). Distal part of metacarpus longer, usually as long as width of pterostigma (fig. 26). Mesopleuron without or with sparse punctures, sometimes centrally fine rugose (fig. 33). Hind coxa brown or red. 12
- 11 Scuto-scutellar groove smooth (as fig. 53). Vertex with large yellow spot (fig. 78). Temple moderately narrowed behind eye (fig. 78). Metasoma mainly black, 2nd tergite reddish in basal half (fig. 84). Mid and hind coxae brownish (fig. 14). Mesopleuron finely rugose-punctate ventrally (fig. 36). *M. ranini* VIKBERG, 2007
- Scuto-scutellar groove with fine longitudinal ridges (as fig. 54). Vertex without yellow spot (fig. 79), temple strongly narrowed behind eye (fig. 79). At least 2nd and 3rd tergites \pm reddish or yellowish. Following tergites reddish-yellow (fig. 13). All coxae pale. Mesopleuron densely punctate ventrally. Pakistan. *M. punjabi* nov.sp.
- 12 Temple slightly widened behind eye (fig. 74). Mesosoma moderately depressed, 2.1 \times as long as high. Mesopleuron sparsely punctate ventrally (fig. 31). Siberia. *M. megacephalus* nov.sp.
- Temple parallel or \pm narrowed behind eye (fig. 76-78). Mesosoma not or moderately depressed. Mesopleuron densely punctate or finely rugose (fig. 33). 13
- 13 Mesosoma moderately depressed, 2.0 \times as long as high (fig. 5). Temple \pm parallel behind eye (fig. 76). Mesopleuron punctate. Hind femur stouter, 3.5 \times as long as wide. Ovipositor sheath stouter, 5.5-6.5 \times as long as wide (fig. 42). *M. formosus* BRIDGMAN, 1882
- Mesosoma not depressed, 1.6 \times as long as high (fig. 11). Temple strongly narrowed behind eye (fig. 75). Mesopleuron \pm rugose or rugose-punctate centrally (fig. 33). Hind femur slenderer, 4.1-4.4 \times as long as wide. Ovipositor sheath slender, 7.5-8.5 \times as long as wide (fig. 48). *M. nigrifrons* nov.sp.

Males:

- 1 Stylet pointed at apex (fig. 85). Apical metasomal tergites blackish or with vespoid color pattern (fig. 85). *M. unicolor* (THUNBERG, 1824)
- Stylet blunt or \pm clubbed at apex (figs 86-88). Color of metasoma various 2
- 2 Mesoscutum brown, with 4 yellow longitudinal stripes, which are confluent frontally. Distal part of metacarpus very short or absent. 3
- Mesoscutum usually without yellow stripes; if yellow stripes on mesoscutum present, then distal part of metacarpus at least as long as width of pterostigma. 5
- 3 Mesopleuron mainly blackish or brownish (as fig. 1). Hind tibia basally and apically infusate. 2nd tergite black, with yellowish apical band. *M. bilineatus* THOMSON, 1885
- Mesopleuron yellowish or reddish. Color of hind tibia various. 2nd tergite with triangular apical yellow spot or mainly yellowish. 4
- 4 Lateral ocellus distinctly smaller than distance between ocellus and eye. Pterostigma hyaline. Hind tibia not or slightly darkened apically, hind tarsus pale. 2nd tergite black, with triangular yellow spot apically. *M. maroccanus* (SCHWENKE, 1999)
- Lateral ocellus about as large as distance between ocellus and eye. Pterostigma brown. Hind tibia infusate apically, hind tarsus mainly black. 2nd tergite yellow, with basolateral blackish stripes. *M. persicus* RIEDEL et al., 2019
- 5 2nd tergite slender, more than 2 \times as long as wide (fig. 87). Scuto-scutellar groove with longitudinal ridges (fig. 53). Area basalis closed apically and separated from area superomedia (fig. 28). Area superomedia short and wide (length 1.5 \times width). 1st tergite with fine lateral carina. *M. tenuigaster* (SCHWENKE, 1999)
- 2nd tergite shorter, less than 2 \times as long as wide (figs 85-86, 88). Scuto-scutellar groove usually smooth (fig. 53). Area basalis and area superomedia usually confluent (fig. 27); area superomedia at least 2 \times as long as wide. 6
- 6 Body length at least 5 mm. Inner eye margins \pm divergent ventrally. Hind coxa reddish-brown (fig. 21). Hind tibia infusate in apical 0.2. *M. macrocephalus* STROBL, 1904
- Body length less than 5 mm. Inner eye margins parallel or convergent ventrally. Color of hind coxa and of hind tibia various 7
- 7 Pterostigma brownish. Stylet long, 1.4-1.8 \times as long as 2nd hind tarsomere (figs 18, 29). ... 8
- Pterostigma mainly hyaline. Stylet often shorter (figs 85, 88) 10
- 8 Mesoscutum with two yellow longitudinal stripes which are convergent caudally. Hind tarsus blackish. *M. nemoralis* (SCHWENKE, 1999)
- Mesoscutum without yellow stripes, entirely blackish or medially mainly reddish. 9
- 9 Scuto-scutellar groove with longitudinal ridges (fig. 53). Flagellum blackish. 1st tergite reddish basally. Hind tarsomeres black. (fig. 18). *M. longistylus* nov.sp.
- Scuto-scutellar groove smooth (fig. 52). Flagellum \pm yellowish basally. 1st tergite black basally. Hind tarsomeres yellowish, with brownish tips. *M. flavescens* (FONSCOLOMBE)
- 10 2nd tergite completely yellow. *M. oranae* (SCHWENKE, 1999)
- 2nd tergite partly or mainly blackish. 11
- 11 Vertical orbit with a large reddish or yellowish spot (fig. 78). Vein 1cu-a almost interstitial. Fore and mid coxae brownish, hind coxa black (fig. 17). Distal part of metacarpus very short (fig. 24). *M. ranini* VIKBERG, 2017
- Vertical orbit without a reddish spot. Vein 1cu-a usually distinctly postfurcal. All coxae pale. Distal part of metacarpus often at least as long as width of pterostigma (fig. 26). 12
- 12 Pterostigma widened, 2.5 \times as long as wide. 2nd tergite brown, with triangular yellowish spot in apical half (fig. 16). *M. ruscicus* (SCHWENKE, 1999)
- Pterostigma less widened, at least 3.0 \times as long as wide. 2nd tergite with various coloration 13

- 13 Mesosoma not depressed, $1.7\times$ as long as high (fig. 23). Vein 1cu-a slightly postfurcal. Flagellum with 25 segments. Apical tergites reddish *M. fraxini* (SCHWENKE, 1999)
- Mesosoma \pm depressed, about $2\times$ as long as high (fig. 20). Vein 1cu-a slightly or strongly postfurcal. 14
- 14 Width of face $1.0\times$ combined length of clypeus and face. Vein 1cu-a slightly postfurcal by $0.2\times$ its length. Stylet $1.2\text{--}1.4\times$ as long as 2nd hind tarsomere, slightly clubbed apically. *M. formosus* BRIDGMAN, 1882
- Face wider, its width $1.2\times$ combined length of clypeus and face. Vein 1cu-a postfurcal by $0.4\times$ its length. Stylet $1.7\times$ as long as 2nd hind tarsomere, stick-shaped, not clubbed apically. *M. moravicus* (SCHWENKE, 1999)

List and description of species

Mesochorus (Stictopisthus) bilineatus THOMSON, 1886 (figs 1, 25, 34, 38, 55)

Original: *Mesochorus (Stictopisthus) bilineatus* THOMSON, 1886: 344.

Lectotype: (σ) "*bilineatus*" (Lund), type not examined.

syn. nov. *Stictopisthus sacromontis* SCHWENKE, 1999: 30.

Holotype: (φ) "Italia-Piemonte AL Sacro Monte di Crea, T.M. 29.VII.1986 Scaramozzino P.L. leg." (ZSM), type examined.

Description: φ . Body length 2.5–4.0 mm. Flagellum with 20–24 segments; 1st flagellar segment $3.2\text{--}3.6\times$ as long as wide and $0.4\text{--}0.5\times$ as long as eye; 2nd segment $2.3\text{--}2.8\times$ and preapical segment c. $2\times$ as long as wide. Temple moderately narrowed behind eye, dorsally $0.7\times$ as long as eye. OED $1.4\text{--}1.8\times$ and OOD $1.6\times$ ocellar diameter. Occipital carina complete medially. Frons with very fine transverse granulation. Face coarsely punctate, with \pm distinct transverse striation, its width $1.2\text{--}1.3\times$ combined length of face and clypeus and $1.0\text{--}1.1\times$ eye length, lateral margins convergent ventrally. Mandible with two equally sized teeth. MI $0.7\text{--}0.8$.

Mesosoma moderately depressed, $1.9\text{--}2.0\times$ as long as high. Mesoscutum densely punctate, shining. Mesopleuron and metapleuron densely and coarsely punctate. Scuto-scutellar groove smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia $2.0\times$ as long as wide; costula reaching at its middle. Area petiolaris hexagonal, slightly as long as wide. Hind femur $3.0\text{--}3.1\times$ as long as wide. Inner apical spur of hind tibia $0.62\times$ as long as hind metatarsus. Hind claws without visible teeth. Areolet sessile frontally; vein 2m-cu reaching \pm proximad its middle. Vein 1cu-a strongly postfurcal by $0.5\text{--}0.8\times$ its length. Postnervulus intercepted in its middle. Pterostigma $3.1\times$ as long as wide. Anterior margin of radial cell $0.9\times$ as long as pterostigma; distal part of metacarpus very short or entirely absent. Hind wing with 4 distal hamuli.

1st tergite $2.1\text{--}2.4\times$ as long as wide; postpetiole \pm strongly aciculate. 2nd tergite $0.7\text{--}0.9\times$ as long as wide. Ovipositor sheath $6.0\text{--}7.1\times$ as long as wide and $0.9\text{--}1.0\times$ as long as hind metatarsus, slightly narrowed in apical 0.2, with long setae.

Color: black. Clypeus, face, frons, gena, temple, tegula and subtegular ridge yellow; stemmaticum and occiput, and sometimes frons medially brown to black. Flagellum yellow, fuscous apically. Mesosoma black; pronotum brownish, with wide yellowish margins; mesoscutum with yellow stripes laterally and sub-medially, confluent frontally. Scutellum yellowish or reddish, with baso-central fuscous spot. 1st tergite black, often

with yellowish spot or band apically; 2nd tergite black, yellow in the apical 0.3-0.4; 3rd tergite brown, yellowish in the basal 0.5-0.7; following tergites brown with narrow yellowish apical margins. Ovipositor sheath black. Pterostigma hyaline to ochreous. Legs yellowish; hind coxa reddish or brownish; hind femur sometimes with diffuse brownish suffusion; hind tibia narrowly black at base and narrowly infusate apically; hind metatarsus narrowly brown at apex.

♂. Body length 3.5-4.0 mm. Flagellum with 21-24 segments; 1st flagellar segment 3.9× and 2nd segment 2.9× as long as wide. OED 1.3-1.5× and OOD 1.5-1.7× ocellar diameter. Face width 1.2× combined length of clypeus and face and 1.0-1.1× eye length. Mesosoma 1.7-1.9× as long as high. Mesopleuron densely punctate. Hind femur 3.7-3.8× as long as wide. Vein 1cu-a strongly postfurcal by 0.5-1.0× its length. Area basalis and area superomedia confluent; costula weak. Area petiolaris wider than long. 1st tergite 2.3× as long as wide; postpetiole coarsely aciculate. 2nd tergite 0.8-0.9× as long as wide. Stylet 1.1-1.5× as long as 2nd hind tarsomere, distinctly clubbed apically.

Color: Pronotum yellow-red, blackish laterally. Mesopleuron sometimes reddish-brown. Hind tibia narrow at base and apex brownish. Hind tarsus ± brownish. Color otherwise as in ♀.

Distribution: Transpalearctic; examined material from Bulgaria*, France, Italy, Kazakhstan*, Mongolia*, Russia* (Volgograd district), Turkey*.

***Mesochorus (Stictopisthus) cuspidatus* (SCHWENKE, 1999) (figs 2, 39, 56, 81)**

Original: *Stictopisthus cuspidatus* SCHWENKE, 1999: 28, ♀.

Holotype: (♀) "Italia, Piemonte La Cassa (Torino) VIII 82, Scaramozzino legit" (ZSM), type examined.

Additional material: France: Dordogne, Ste. Alvère, Malaise trap, 1♀ 26.ix.-5.x.1994, leg. R.R. Askew (EDI).

Description: ♀. Body length 2.0-2.3 mm. Flagellum with 24-25 segments; 1st flagellar segment 5.7× as long as wide and 0.60-0.63× as long as eye; 2nd segment 4.6× and preapical segment c. 2× as long as wide. Temple moderately narrowed behind eye, dorsally 0.7× as long as eye. OED 1.6-1.7× and OOD 1.2× ocellar diameter. Frons finely and transversely aciculate laterally. Face coarsely punctate, its width 1.0-1.1× combined length of face and clypeus and eye length. Ventral third of facial orbit with some oblique striae. Mandible with two equally sized teeth. MI 0.6.

Mesosoma not depressed, 1.7-1.8× as long as high. Mesopleuron with coarse but sparse punctures ventrally. Scuto-scutellar groove rather wide, smooth. Propodeum completely carinate, area basalis and area superomedia confluent. Hind femur 3.5-4.3× as long as wide. Inner apical spur of hind tibia 0.63× as long as hind metatarsus. Hind claws with 2 visible teeth basally. Areolet sessile frontally; vein 2m-cu reaching slightly distad its middle. Vein 1cu-a strongly postfurcal by slightly more than its length; postnervulus intercepted slightly proximad its middle. Distal part of metacarpus about as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus slightly reclivous.

1st tergite 2.6× as long as wide. 2nd tergite 0.9-1.0× as long as wide. Ovipositor sheath 7.7× as long as wide and about as long as hind metatarsus, strongly narrowed and almost pointed apically, slightly bent upwards apically.

Color: black. Head yellowish or reddish; face, stemmaticum and occiput brownish. Mesosoma blackish; pronotum and fronto-dorsal third of mesopleuron yellowish or

brownish; mesopleuron otherwise dark brown. 1st tergite black, yellow basally; 2nd tergite black, yellow in apical 0.4; following tergites brownish. Legs yellowish-red; hind coxa reddish or brown; hind tibia yellow, narrowly fuscous at apex (0.5-1.0× its width). Pterostigma hyaline.

♂ unknown.

Distribution: Europe; examined material from Italy and France*.

***Mesochorus (Stictopisthus) dilutoides* nom. nov.** (figs 3, 19, 40, 57)

Original: *Stictopisthus dilutus* SCHWENKE, 1999: 30, ♀, in *Mesochorus* preoccupied by RATZBURG, 1844.

Holotype: (♀) “34.12, Türkei [Turkey], Cukorova *Citrus*-Plant.” (ZSM), type examined.

Description: ♀. Body length 2.8-3.5 mm. Tips of flagella broken off; 1st flagellar segment 3.8-4.0× as long as wide and 0.50-0.56× as long as eye; 2nd segment 3.5× as long as wide. Temple moderately and roundly narrowed behind eye, dorsally 0.7× as long as eye. OED 1.6-1.8× ocellar diameter. Face coarsely and densely punctate, its width 1.2-1.3× combined length of face and clypeus and 1.1-1.2× eye length, sides slightly convergent ventrally. MI 0.6-0.7, finely striate.

Mesosoma moderately depressed, 2.0-2.2× as long as high. Mesoscutum densely punctate, shining. Mesopleuron densely or rather densely and coarsely punctate. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia short; costula reaching at its middle. Area petiolaris hexagonal, about as long as wide. Hind femur 2.9-3.2× as long as wide. Areolet shortly sessile frontally. Vein 1cu-a strongly postfurcal by about its length. Pterostigma 2.9× as long as wide. Distal part of metacarpus 0.7-0.9× as long as width of pterostigma.

1st tergite 2.3-2.5× as long as wide, postpetiole striate. 2nd tergite 0.8-0.9× as long as wide. Ovipositor sheath slender, 6.9-7.2× as long as wide and 1.0-1.1× as long as hind metatarsus, almost bare and strongly narrowed in apical half.

Color: black. Head yellowish; face and occiput brownish. Basal flagellomeres yellowish. Mesosoma brownish; sometimes pronotum reddish and mesoscutum with H-shaped central red spot. Propodeum in basal 2/3 blackish. 1st tergite dark brown, basally and apically yellowish; 2nd tergite yellow, with brownish fronto-lateral spots; 3rd tergite yellowish at base and brownish in apical third; following tergites brownish and slightly vespoid. Ovipositor sheath black. Legs brownish-yellow; hind coxa and hind femur with ± fuscous suffusion; hind tibia yellow, fuscous in apical 0.15-0.2 (0.7-1.0× tibial width). Pterostigma hyaline.

♂ unknown.

Distribution: Only known from Turkey.

***Mesochorus (Stictopisthus) flavescens* FONSCOLOMBE, 1852** (figs 4, 41, 53, 58, 82)

Holotype: (♂) “*Mesochorus flavescens* nob” (Paris), photos of type [MNH Paris] studied. syn. *Mesochorus pungens* SCHWENKE, 1999: 58, synonymized by RIEDEL (2018).

Holotype: (♂) “Dessau-Anh. 117/88 4.7. leg. Zoerner” (SDEI, Müncheberg), type examined. syn. nov. *Stictopisthus hispanicus* SCHWENKE, 1999: 32, ♂.

Holotype: (♂) “El Soldado, Sierra Morena, 26.7.26, Seyrig” (Paris), photos of type [MNH Paris] studied.

Description: ♀. Body length 3.0-3.5 mm. Flagellum with 24-26 segments; 1st flagellar segment 3.7-4.3× as long as wide and 0.50× as long as eye; 2nd segment 3.0× and preapical segment 1.5-1.7× as long as wide. Temple moderately and roundly narrowed behind eye, dorsally 0.6-0.7× as long as eye. OED 1.4-1.8× ocellar diameter. Frons and occiput with sparse punctures. Face coarsely punctate, its width 1.3-1.4× combined length of face and clypeus and 1.1-1.2× eye length, with ± parallel sides. Mandible with two equally sized teeth, sometimes upper tooth slightly larger. MI 0.4-0.6.

Mesosoma strongly depressed, 2.2-2.3× as long as high. Mesopleuron with coarse but sparse punctures ventrally, shining. Metapleuron with slightly denser punctures, shining. Pronotum almost smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area petiolaris wider than long. Hind femur 2.9-3.1× as long as wide. Areolet sessile or pointed frontally. Vein 1cu-a strongly postfurcal by 0.7-1.0× its length. Pterostigma 2.8× as long as wide. Apical part of metacarpus long, about as long as width of pterostigma.

1st tergite 2.3-2.7× as long as wide; postpetiole coarsely striate or aciculate. 2nd tergite 0.9× as long as wide. Thyridium comma-shaped, transverse. Ovipositor sheath densely pilose, stout, 5.6-6.2× as long as wide and about as long as hind metatarsus, slightly narrowed apically.

Color: black. Head reddish-yellow; occiput brownish. Two to three basal flagellomeres yellow, flagellum otherwise ochreous. Pronotum and mesopleuron reddish; mesoscutum brownish, with H-shaped central reddish mark or reddish with brownish lateral stripes and fronto-medial spot; scutellum, propodeum and metapleuron blackish. 1st tergite black, sometimes 1st sternite dark reddish. 2nd tergite yellow, basolateral with dark brown medially confluent stripes; 3rd tergite yellow, brownish laterally; following tergites yellowish-brown basally and yellowish apically. Legs reddish-yellow; hind tibia pale yellow, at narrow base and apical 0.1-0.2 (0.5-1.0× tibial width) ± brownish. Pterostigma hyaline or pale ochreous, with slightly darker margins.

♂. Body length 3.5-4.5 mm. Flagellum with 27-29 segments; 1st flagellar segment 5.9-6.0× as long as wide and 0.60-0.63× as long as eye; 2nd segment 4.1× and preapical segment 2.2× as long as wide. Temple moderately narrowed behind eye, dorsally 0.7-0.8× as long as eye. OED 1.4-1.8× and OOD 0.9× ocellar diameter. Occipital carina complete medially. Width of face 1.1-1.2× combined length of face and clypeus and 1.0-1.1× eye length, with parallel sides. Mandible with two equal teeth.

Mesosoma slightly or moderately depressed, 1.8-2.1× as long as high. Mesoscutum densely punctate. Mesopleuron with rather dense to dense punctures. Scuto-scutellar groove smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Hind femur 3.5-4.2× as long as wide. Areolet pointed to sessile frontally; vein 1cu-a strongly postfurcal by 0.5-0.8× its length. Pterostigma wide, 2.3-2.5× as long as wide. Distal part of metacarpus long, length 1.0× width of pterostigma.

1st tergite 2.6-2.8× as long as wide; postpetiole coarsely aciculate. 2nd tergite 0.9-1.0× as long as wide. Thyridium comma-shaped, at base of tergite. Stylet long, stick-shaped or slightly clubbed apically, 1.4-1.8× as long as 2nd hind tarsomere.

Color: Head yellow. Palps, gena, mandible (except teeth), face, frontal margin and hind

edge of pronotum, tegula, wing base, and fore and mid coxae and trochanters cream-yellow. Flagellum yellow basally, \pm infusate distally. Mesosoma reddish-yellow; mesoscutum with two brownish to blackish lateral stripes and blackish fronto-median spot; propodeum black in frontal 1/2-2/3. 1st sternite dark reddish; 1st tergite black, sometimes reddish basally; 2nd tergite black, with triangular or arched yellow spot in apical 1/2; 3rd tergite brown, with tongue-shaped yellow spot in basal 2/3; following tergites brown or vespoid. Legs yellow, hind femur with brownish suffusion apically, hind tibia cream-yellow, brownish in apical 0.15-0.2 (1.0-1.5 \times tibial width); hind tarsomeres yellowish, with \pm brown tips. Pterostigma brown, pale yellow proximally and sometimes distally.

Remarks: The correlation of sexes was confused by SCHWENKE (1999) who described the stylets (e. g. parameres) of ♂ as apically pointed, but the parameres are stick-shaped and slightly clubbed apically (see photos of HT from Mus. Nat. Hist. Naturelle/Paris). It should be noted here that all known European ♂♂ with apically pointed parameres belong to *Mesochorus unicolor* (THUNBERG).

Distribution: West Palearctic; examined material from Belgium*, Bulgaria, Corsica*, Czech Republic (Moravia)*, Germany, Greece*, Poland*.

***Mesochorus (Stictopisthus) formosus* BRIDGMAN, 1882** (figs 5, 20, 42, 59, 76)

Original: *Mesochorus formosus* BRIDGMAN, 1882: 154, ♀.

Lectotype: (♀) [Great Britain] (Norwich), type not examined.

syn. *Mesochorus convexicollis* THOMSON, 1886: 344, ♀♂.

Lectotype: (♀) "Hbg., *convexicollis*" (LUND), synonymized by MEYER (1935), type not examined.

syn. *Mesochorus turbidus* SCHWENKE, 1999: 39, synonymized by RIEDEL (2019).

Holotype: (♀) "I, BZ, Villanders 1000 m, 21.9.1978, E. Haeselbarth" (ZSM), type examined.

syn. nov. *Stictopisthus polonius* SCHWENKE, 1999: 32, ♂.

Holotype: (♂) "399" (ZSM), type examined.

Description: ♀. Body length 2.0-3.0 mm. Flagellum with 20-24 segments; 1st flagellar segment 6.5-7.0 \times as long as wide and 0.62-0.65 \times as long as eye; 2nd segment 4.5-5.0 \times and preapical segment 1.7-2.0 \times as long as wide. Temple parallel or slightly widened behind eye, moderately narrowed apically, dorsally 0.8 \times as long as eye. OED 1.8 \times ocellar diameter. Occipital carina sometimes weak medially. Face coarsely punctate, its width 1.1-1.2 \times combined length of face and clypeus and 1.0-1.1 \times eye length, sides parallel. Malar space and ventral 0.3 of facial orbit finely striate. Dorsal mandibular tooth often slightly larger than ventral tooth. MI 0.3-0.4.

Mesosoma moderately depressed, 1.8-2.0 \times as long as wide. Mesoscutum densely punctate. Mesopleuron with sparse punctures or almost smooth ventrally. Scuto-scutellar groove smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia 2 \times as long as wide; costula carina reaching at its middle. Area petiolaris hexagonal, as long as wide. Hind femur 3.5-3.6 \times as long as wide. Areolet pointed frontally; vein 2m-cu reaching at its middle. Vein 1cu-a moderately postfurcal by 0.4-0.6 \times its length. Pterostigma c. 3.3 \times as long as wide. Apical part of metacarpus long, about as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus vertical.

1st tergite 2.8-3.1 \times as long as wide; postpetiole aciculate. 2nd tergite 0.9-1.0 \times as long as wide. Thyridium comma-shaped. Ovipositor sheath 5.5-6.6 \times as long as wide and 0.8-0.9 \times as long as hind metatarsus, not distinctly narrowed apically, slightly bent upwards.

Color: black. Palps and tegula yellow. Flagellum yellowish proximally, \pm infusate distally. Face brownish; stemmaticum and occiput black. Mandible, gena, clypeus apically and orbits \pm yellowish-red. Mesosoma black; mesoscutum sometimes with H-shaped dark reddish mark. Metasoma black; 1st sternite sometimes with reddish base; 2nd tergite with yellow band or arched spot in apical 0.25; 3rd tergite yellow in the basal part (length 0.5 centrally and 0.25 laterally). Legs yellow; hind coxa brown to blackish; hind femur with some brownish suffusion; hind tibia with narrow brown apex (0.5-1.0 \times tibial width). Pterostigma hyaline, with fuscous margins.

♂. Body length 3.0 mm. Flagellum with 22-23 segments; 1st flagellar segment 7.8-8.0 \times as long as wide and 0.65-0.75 \times as long as eye; 2nd segment 5.4 \times as long as wide. Temple slightly to moderately narrowed behind eye, dorsally 0.7-0.78 \times as long as eye. OED 1.4-1.6 \times and OOD 0.9 \times ocellar diameter. Face coarsely punctate, its width 1.0 \times combined length of face and 1.0 \times eye length, sides parallel. Mandible with two equal teeth. MI 0.4.

Mesosoma moderately depressed, 1.8-2.0 \times as long as high. Mesoscutum rather densely punctate medially, with sparse punctures laterally. Mesopleuron with sparse to rather dense punctures ventrally. Propodeum carinate as in ♀. Hind femur 4.0-4.4 \times as long as wide. Inner apical spur of hind tibia 0.55 \times as long as hind metatarsus. Hind claws without visible teeth. 1st tergite 2.5-3.1 \times as long as wide; postpetiole with longitudinal striation. 2nd tergite 1.0-1.1 \times as long as wide. Thyridium comma-shaped. Stylet 1.2-1.4 \times as long as 2nd hind tarsomere, slightly clubbed apically.

Color: Head yellowish; stemmaticum brown. Scape, pedicel and basal flagellomeres yellow, flagellum infusate in distal 3/4. Mesosoma yellowish or reddish; mesoscutum with two lateral and one fronto-median brown to blackish stripes, sometimes completely reddish-yellow; scutellum brown, sometimes reddish-yellow; propodeum blackish or brown. Metasoma blackish; 1st tergite reddish basally; 2nd tergite with a transversal band or triangular yellow spot in apical 0.2-0.3; 3rd tergite yellow in basal 0.5; following tergites brown or slightly vespoid. Legs yellowish; hind tibia infusate in apical 0.1-0.2. Pterostigma hyaline.

Hosts: *Apanteles* s. lat. (Hym., Braconidae) in *Phyllonoryctes blancardella* (FABRICIUS, 1781) (Lep., Gracillariidae) (ZSM), *Pholetesor circumscriptus* (NEES) in *Phyllonorycter lantanella* (EDI), *Pholetesor nanus* (REINHARD) in *Phyllonorycter strigulatella* (EDI), ? *Pholetesor nanus* (REINHARD) in *Phyllonorycter anderidae* (EDI), *Pholetesor nanus* (REINHARD) in *Phyllonorycter spinolella* (EDI), *Pholetesor nanus* (REINHARD) in *Phyllonorycter hilarella* (EDI), *Pholetesor nanus* (REINHARD) in *Phyllonorycter dubitella* (EDI), *Phyllonorycter salicolella* (EDI), *Pholetesor* sp. in *Catoptilia rufipennella* (ÜBERNER, 1813) (Lep., Gracillariidae) (EDI), *Pholetesor laetus* (MARSHALL) in *Catoptilia semifascia* (EDI), *Pholetesor nanus* (REINHARD) in *Salicidella aspinolella* (EDI), [primary host] *Bucculatrix thoracella* (THUNBERG, 1794) (Lep., Bucculatricidae) (ZSM)

Distribution: West Palearctic; examined material from Czech Republic, Germany, Poland, Sweden, and United Kingdom.

***Mesochorus (Stictopisthus) fraxini* (SCHWENKE, 1999) (fig. 23)**

Original: *Stictopisthus fraxini* SCHWENKE, 1999: 32.

Holotype: (♂) "Harlach/N-Bay, 17.7.72 Schwenke" (ZSM), type examined.

Description: ♂. Body length 2.8 mm. Flagellum with 25 segments; 1st flagellar segment 7.5× as long as wide and 0.65× as long as eye; 2nd segment 5.0× as long as wide. Temple short, but only slightly narrowed behind eye, dorsally 0.6-0.7× as long as eye. OED 1.5× ocellar diameter. Face coarsely punctate, its width 1.0× combined length of face and clypeus and 0.9× eye length, sides slightly divergent ventrally. Subantennal transverse carina slightly dipped centrally. Dorsal mandibular tooth slightly larger than ventral tooth. MI 0.3-0.4.

Mesosoma not depressed, 1.7× as long as high. Mesopleuron with sparse punctures ventrally, speculum smooth and shining. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia c. 2× as long as wide; costula reaching at its middle. Area petiolaris slightly as long as wide. Hind femur 4.3× as long as wide. Areolet sessile frontally; vein 1cu-a slightly postfurcal by 0.2× its length; distal part of metacarpus as long as width of pterostigma. 1st tergite 2.9× as long as wide; postpetiole coarsely aciculate. 2nd tergite as long as wide. Thyridium transverse, comma-shaped. Stylet slightly clubbed at apex, 1.3× as long as 2nd hind tarsomere.

Color: yellowish. Stemmaticum blackish. Basal flagellomeres yellowish; flagellum fuscous distally. Mesoscutum yellowish, with brown spot fronto-medially and pale brownish lateral stripes. Propodeum blackish; metapleuron yellowish. Legs yellow; hind tibia and hind tarsomeres narrowly brownish at apices. Pterostigma hyaline.

♀ unknown.

Remarks: The only known ♂ is closely related to *M. (St.) formosus*. It differs by the stouter mesosoma, very slender flagellum, and slightly clubbed tip of paramere. The transverse carina below antennal sockets appears slightly dipped medially, but the morphology is otherwise typical for the subgenus *Stictopisthus*.

Distribution: Only known from Germany.

***Mesochorus (Stictopisthus) longistylus* nov.sp.** (figs 18, 29, 37, 60, 80)

Holotype: (♂) "Lazio, RM. Anticoli, Corrado, 325 m, 14.V.2011, leg. M. Mei, G. Lo Giudice" (ZSM).

Description: ♂. Body length 4.5 mm. Flagellum with 37 segments; 1st flagellar segment 5.0× as long as wide and 0.7× as long as eye; 2nd segment 3.7× as long as wide. Temple moderately and roundly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.8× and OOD 0.8× ocellar diameter. Face punctate, its width 1.1× combined length of face and clypeus and 1.1× eye length, with parallel sides. Ventral 0.4 of facial orbit and malar space striate. Mandible with two equal teeth. MI 0.9.

Mesosoma moderately depressed, 1.7× as long as high. Mesoscutum with rather dense punctures. Mesopleuron with finer dense punctures dorsally and with rather dense coarse punctures ventrally. Scuto-scutellar groove with c. 7 blunt longitudinal ridges. Propodeum completely carinate. Area superomedia 1.8× as long as wide and 1.2× as long as area petiolaris; costula reaching at its middle. Area petiolaris about as long as wide. Hind femur 4.6× as long as wide. Hind claws without visible teeth. Areolet shortly sessile frontally; vein 2m-cu reaching slightly proximad its middle. Vein 1cu-a postfurcal by 0.5× its length. Pterostigma rather narrow, c 3.0× as long as wide. Distal part of metacarpus long, length 1.3× width of pterostigma.

1st tergite slender, 3.4× as long as wide; postpetiole with rather coarse longitudinal rugae.

2nd tergite 1.0× as long as wide. Thyridium transversal-oval, at base of tergite. Stylet long, slightly clubbed apically, 1.6× as long as 2nd hind tarsomere.

Color: Head with scape and pedicel yellow. Flagellum blackish. Frons medially, stemmaticum and occiput brownish. Mesoscutum and propodeum blackish, scutellum brown. Pronotum yellowish-red, mesopleuron and metapleuron reddish. Hind edge of pronotum and tegula yellow. 1st tergite black, red basally. 2nd tergite black, with triangular reddish spot in apical half; 3rd tergite blackish, with reddish band in basal 0.2. Following tergites blackish. Fore and mid legs reddish-yellow; hind coxa red with brown dorsal spot; hind femur reddish, with brown stripe externally; hind tibia cream-yellow, blackish in basal 0.1 and apical 0.2; hind tarsus black. Pterostigma brown.

♀ unknown.

Remarks: The ♂ of this new species is characterized by superficially ridged scuto-scutellar groove, vein 2m-cu reaching areolet slightly proximad its middle, black flagellum, red base of 1st tergite, brown spot at hind coxa, basally and apically black hind tibia, and black hind tarsomere.

Distribution: Only known from Italy.

***Mesochorus (Stictopisthus) macrocephalus* STROBL, 1904** (figs 6, 21, 30, 43, 61, 73, 83)

Original: *Mesochorus (Stictopisthus) macrocephalus* STROBL, 1904: 106, ♂.

Holotype: (♂) “Styriae alp. Strobl” (Admont), type examined.

Description: ♀. Body length 4.5-5.5 mm. Flagellum with 28 segments; 1st flagellar segment 3.1-3.5× as long as wide and 0.45× as long as eye; 2nd segment 2.2× and preapical flagellomere 1.7× as long as wide. Head wider than mesosoma. Temple slightly widened or slightly narrowed behind eye, moderately narrowed caudally, dorsally 0.7-0.9× as long as eye. OED 1.6-2.1× and OOD 1.1× ocellar diameter. Occipital carina complete. Mandible and face strongly swollen. Face coarsely punctate, its width 1.2×1.3× combined length of face and clypeus and 1.2-1.3× eye length. Clypeus centrally impressed, apical margin with short lateral lamella. Gena with sparse punctures ventrally. MI 0.2-0.3.

Mesosoma strongly depressed, 2.1-2.4× as long as high. Pronotum with fine punctures dorsally, almost smooth ventrally. Mesopleuron with rather sparse punctures ventrally, denser in dorsal parts; metapleuron rather densely punctate. Scutellum with sparse punctures. Scuto-scutellar groove smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia c. 2.0× as long as wide; costula reaching at its middle. Area petiolaris 1.0-1.2× as wide as long. Hind femur 2.9-3.2× as long as wide. Areolet sessile frontally; vein 2m-cu reaching slightly proximad its middle. Vein 1cu-a strongly postfurcal by 0.5-0.8× its length. Pterostigma 3.1× as long as wide; distal part of metacarpus rather short, 0.5-1.0× as long as width of pterostigma.

1st tergite 2.2-2.4× as long as wide; postpetiole finely aciculate. 2nd tergite 0.9-1.0× as long as wide. Thyridium transverse and comma-shaped. Ovipositor sheath short, 4.2-5.0× as long as wide and 0.7-0.9× as long as hind metatarsus.

Color: black. Head yellowish; occiput centrally brownish. Pronotum yellowish; mesoscutum black, with H-sized yellow-brownish spot; scutellum brownish; mesopleuron reddish-yellow, with diffuse brownish suffusion dorsally; metapleuron and propodeum

blackish. 2nd tergite with triangular yellow spot in apical 1/3-1/2; 3rd tergite reddish-yellow, blackish laterally and apically; 4th to 7th tergites blackish, often slightly vespid. Hind coxa brownish or reddish, hind femur sometimes with brownish suffusion apically; hind tibia completely yellowish or infuscate in apical 0.2 (1.0× tibial width). Pterostigma hyaline frontally, caudal margin often brownish.

♂ (holotype). Body length 5.0 mm. Head missing. Mesosoma moderately depressed, 2.0× as long as high. Mesoscutum densely punctate; mesopleuron with fine dense punctures fronto-dorsally and with coarser dense punctures ventrally. Scuto-scutellar groove 2.6× as wide as long, smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia rather slender; costula reaching at its middle. Area petiolaris wider than long. Hind femur 3.9× as long as wide. Areolet shortly sessile frontally; vein 2m-cu reaching slightly proximad its middle; vein 1cu-a strongly postfurcal by 0.7× its length. Pterostigma 2.7× as long as wide. Distal part of metacarpus long, length 1.0× width of pterostigma. Postnervulus intercepted in its middle. Nervellus of hind wing inclivous.

1st tergite 2.6× as long as wide; postpetiole coarsely striate. 2nd tergite 1.5× as long as wide. Thyridium comma-shaped. Stylet long, stick-shaped, 1.4× as long as 2nd hind tarsomere.

Color: Mesosoma blackish; mesoscutum with H-shaped central reddish-yellow spot; scutellum brownish; pronotum and mesopleuron reddish-brown. Hind edge of pronotum and tegula yellow. 1st tergite black. 2nd tergite black, with yellowish band in apical 0.25. 3rd tergite yellow in basal half, blackish apically. Following tergites black. Legs reddish-yellow; hind coxa reddish-brown; hind femur with diffuse reddish-brown suffusion in apical half; hind tibia yellowish, infuscate in apical 0.2. Pterostigma hyaline, margins slightly darker.

Remarks: The head of the holotype is apparently lost. A head glued on a small card and placed to this type does not belong to a Mesochorinae species. I have not seen any other ♂♂ of this species.

Distribution: West Palaearctic; examined material from Austria and Germany.

***Mesochorus (Stictopisthus) mandibulator nov.sp.* (figs 7, 44, 62)**

Holotype: (♀) “Mongolia, Gobi-It. Aimy 33 km South Begzra, Koslov, 14.7.1970” (St. Petersburg).

Paratype: (♂) “Mongolia, G.-Altai, Mt. Khasagt Kharkan, 15 km S Jargalan, Kerzner, 14.8.1970” (St. Petersburg).

Description: ♀. Body length 4 mm. Flagellum with 26 segments; 1st flagellar segment 4.3× as long as wide and 0.57× as long as eye; 2nd segment 2.9× and preapical flagellomere 2.2× as long as wide. Temple roundly narrowed behind eye, dorsally 0.8× as long as eye. OED 2.2× ocellar diameter. Occipital carina complete. Face with coarse punctures and transverse aciculation, its width 1.5× combined length of face and clypeus and 1.2× eye length, with parallel sides. Clypeus impressed, almost smooth. Mandible strongly swollen in apical half, with two equal teeth. MI 0.5.

Mesosoma strongly depressed, 2.2× as long as high. Side of pronotum smooth; mesoscutum, mesopleuron, and metapleuron rather densely punctate. Scuto-scutellar groove smooth. Hind femur 3.2× as long as wide. Areolet sessile frontally; vein 1cu-a strongly

postfurcal by $0.8\times$ its length. Pterostigma $2.5\times$ as long as wide. Distal part of metacarpus short, c. $0.7\times$ as long as width of pterostigma. 1st tergite $2.3\times$ as long as wide; postpetiole finely aciculate. 2nd tergite $0.8\times$ as long as wide. Thyridium transverse, comma-shaped. Ovipositor sheath $4.2\times$ as long as wide and $0.6\times$ as long as hind metatarsus, not distinctly narrowed and slightly bent upwards apically.

Color: black. Head reddish; mandible except teeth, facial orbit and gena yellowish. Flagellum reddish, slightly infusate in distal third. Mesosoma reddish; mesoscutum with two blackish lateral stripes and blackish fronto-medial spot; propodeum blackish, brownish in apical third. 1st sternite basally reddish; 1st tergite black, with reddish apical spot; 2nd tergite red, with basolateral black stripes; 3rd tergite reddish, brownish in apical half; following tergites brownish, slightly vespoid. Legs reddish-yellow; hind femur more brownish-yellow; hind tibia cream-yellow, narrowly brown at apex ($0.5\times$ tibial diameter). Pterostigma yellowish, margins brownish.

♂. Body length 3.5 mm. Flagellum with 24 segments; 1st flagellar segment $5.3\times$ as long as wide and $0.61\times$ as long as eye; 2nd segment $3.9\times$ and preapical segment $2.5\times$ as long as wide. Temple roundly narrowed behind eye, dorsally $0.8\times$ as long as eye. OED $1.4\times$ ocellar diameter. Occipital carina complete. Face with coarse and irregular transverse aciculation, its width $1.2\times$ combined length of face and clypeus and $1.1\times$ eye length, with parallel sides. Clypeus slightly impressed, almost smooth. Mandible slightly swollen in apical half, with two equal teeth. MI 0.5.

Mesosoma moderately depressed, $2.0\times$ as long as high. Side of pronotum smooth. Mesoscutum, mesopleuron, and metapleuron rather densely punctate. Scuto-scutellar groove smooth. Areolet sessile frontally; vein 1cu-a strongly postfurcal by $0.8\times$ its length, distal part of metacarpus c. $0.7\times$ as long as width of pterostigma.

1st tergite $2.1\times$ as long as wide; postpetiole almost smooth, with central rim. 2nd tergite $0.8\times$ as long as wide. Thyridium comma-shaped. Stylet stick-shaped, slightly clubbed apically, $1.2\times$ as long as 2nd hind tarsomere.

Color: Head reddish; mandible except teeth, facial orbit and gena yellowish. Flagellum reddish, slightly infusate in distal third. Mesosoma reddish; mesoscutum with two blackish lateral stripes and blackish fronto-median spot; propodeum blackish, in apical third brownish. 1st sternite with reddish base. 1st tergite black, with reddish apical spot; 2nd tergite red, with basolateral black spots; 3rd tergite reddish, more brownish in the apical half; following tergites brownish, slightly vespoid. Legs reddish-yellow; hind femur more brownish-yellow; hind tibia cream-yellow, narrowly brown at apex ($1.0\times$ tibial diameter); hind metatarsus cream-yellow, apically brown; following hind tarsomeres brownish. Pterostigma yellowish, margins brownish.

Remarks: This species is closely related to *Mesochorus macrocephalus* STROBL and probably represents a subspecies of the latter. It differs by longer basal flagellar segments, wider malar space and a slightly different color pattern.

Distribution: Only known from Mongolia.

***Mesochorus (Stictopisthus) maroccanus* (SCHWENKE, 1999), new ♂** (figs 8, 22, 27, 35, 45, 77, 88)

Original: *Stictopisthus maroccanus* SCHWENKE, 1999: 29, ♀.

Holotype: (♀) “Maroc, Dariet Aoua, 20.7.58” (American Entomological Institute), type not examined.

Description: ♀. Body length 2.9-3.3 mm. Flagellum with 20-23 segments; 1st flagellar segment 3.5-3.8× as long as wide and 0.43-0.45× as long as eye; 2nd segment 2.7-2.8× and preapical segment 1.7× as long as wide. Temple moderately to strongly and roundly narrowed behind eye, dorsally 0.6-0.8× as long as eye. OED 1.4-1.8× and OOD 1.4× ocellar diameter. Occipital carina complete medially. Frons finely granulated laterally. Face with coarse but superficial punctures, its width 1.0× eye length and 1.2× combined length of clypeus and face. Mandible with two equal teeth. MI 0.5-0.7.

Mesosoma slightly or moderately depressed, 1.8-2.0× as long as high. Mesopleuron coarsely and rather densely punctate; metapleuron with finer and denser punctures. Scuto-scutellar groove slit-shaped, smooth. Area basalis and area superomedia confluent; costula reaching at its middle. Area petiolaris 0.9× as long as wide. Hind femur 3.1-3.3× as long as wide. Inner apical spur of hind tibia 0.65× as long as hind metatarsus. Hind claws without visible teeth. Areolet oblique, slightly sessile frontally; vein 2mc-u reaching at its middle; vein 1cu-a strongly postfurcal by 0.6× its length. Postnervulus intercepted in its middle. Pterostigma 2.9× as long as wide; distal part of metacarpus short, 0.1-0.5× of pterostigma width. Hind wing with 4 distal hamuli; nervellus slightly inclivous.

1st tergite 2.0× as long as wide; postpetiole aciculate. 2nd tergite 0.7× as long as wide. Ovipositor sheath 5.5-6.5× as long as wide and 0.8-0.9× as long as hind metatarsus, sometimes slightly narrowed and bent upwards apically.

Color: Black. Face, clypeus, gena, frontal orbit and vertex yellow; frons medially and temple reddish, outer orbit sometimes red; occiput brown, sometimes also stemmaticum. Pronotum, mesopleuron and metapleuron centrally reddish; mesoscutum with four lateral and submedian yellowish stripes, confluent frontally; mesosternum often ± brownish, scutellum with yellowish sides, brown centrally; propodeum blackish. Base of 1st sternite rufous. 1st tergite black, reddish basally and apically; 2nd tergite reddish-yellow, with basolateral infusate stripes; 3rd tergite yellowish in basal 0.6, brown apically; following tergites completely brown or with narrow apical yellow margins (slightly vespoïd). Legs yellowish; hind tibia cream-yellow, not or indistinctly and narrowly darkened basally and apically. Pterostigma hyaline, with darker margins.

♂. Body length 3.0-3.2 mm. Flagellum with 22-24 segments; 1st flagellar segment 4.3-4.9× as long as wide and 0.60× as long as eye; 2nd segment 3.3-3.4× and preapical segment c. 2.0× as long as wide. Temple moderately and roundly narrowed behind eye, dorsally 0.8× as long as eye. OED 1.4-1.5× and OOD 1.5× ocellar diameter. Facial width 1.2× eye length and 1.2× combined length of face and clypeus. MI 0.7.

Mesosoma not or slightly depressed, 1.7-2.0× as long as high. Mesopleuron with coarse and dense but somewhat superficial punctures. Areolet oblique; vein 2m-cu reaching proximad its middle. Vein 1cu-a postfurcal by 0.4× its length, strongly inclivous. Pterostigma wide, 2.5× as long as wide. Stylet 1.3× as long as 2nd hind tarsomere.

Color: Flagellum yellowish, fuscous distally. Head yellowish; stemmaticum and occiput brownish. Pronotum and mesopleuron rufous; mesosternum partly and metapleuron completely brownish; mesoscutum brownish, with four longitudinal yellow stripes, confluent frontally; scutellum brownish, with lateral yellow stripes; propodeum black basally and reddish in apical 1/3, sometimes entirely red. 1st tergite black, with basal and

apical yellow bands; 2nd tergite blackish, with large triangular apical spot (2/3 of tergite length) or yellow with blackish latero-basal stripes; 3rd tergite yellowish, apical margin and sides brownish; following tergites brown, with narrow yellowish apical margins. Fore and mid coxae and trochanters, hind tibia and tarsus cream-yellow; legs otherwise reddish-yellow. Pterostigma pale yellow, with darker margins.

Var.: 1♀ from Kirgizhia: Hind tibia slightly red apically, and hind tarsus pale.

Hosts: *Apanteles* sp. (Hym. Braconidae) in *Pempelia genistella* DUPONCHEL, 1837 (Lep., Pyralidae) (EDI).

Distribution: Transpalearctic; examined material from Bulgaria*, Croatia*, Iran*, Jordan*, Kyrgyzstan*, Morocco, Mongolia*, Spain*, Tunisia*, Turkey.

***Mesochorus (Stictopisthus) megacephalus* nov.sp.** (figs 9, 31, 46, 63, 74)

Holotype: (♀) "V.-Ussur. Station 40 km south of Chuguevka, Kasparyan 23 VII 1970" (St. Petersburg).

Description: ♀. Body length 3.9 mm. Flagellum with 27 segments; 1st flagellar segment 6.9× as long as wide and 0.59× as long as eye; 2nd segment 4.7× and preapical segment 2.0× as long as wide. Temple slightly widened behind eye and slightly narrowed apically, dorsally as long as eye. OED 2.0× and OOD 1.1× ocellar diameter. Occipital carina complete. Vertex with sparse punctures, gena coarsely and densely punctate. Frons almost smooth, Face with coarse dense punctures, its width 1.1× combined length of face and clypeus and 1.1× eye length, with parallel sides. Clypeus impressed, almost smooth. Mandible not swollen, with two equal teeth. MI 0.5.

Mesosoma strongly depressed, 2.1× as long as high. Side of pronotum with fine sparse punctures dorsally, almost smooth ventrally. Mesoscutum with fine rather dense setiferous punctures. Scuto-scutellar groove slit-shaped, smooth. Mesopleuron densely punctate dorso-frontally, with very sparse punctures ventrally. Metapleuron with dense and coarser punctures. Propodeum with complete carination, but area basalis and area superomedia confluent. Costula reaching area superomedia at its middle. Area petiolaris about as long as wide. Hind femur 3.4× as long as wide. Inner apical spur of hind tibia 0.58× as long as hind metatarsus. Hind claws without visible teeth. Areolet pointed frontally; vein 2m-cu reaching proximad its middle. Vein 1cu-a moderately postfurcal by 0.3× its length. Pterostigma 3.0× as long as wide; distal part of metacarpus long, c. 1.0× as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus vertical, not intercepted.

1st tergite 2.5× as long as wide; postpetiole with rather coarse longitudinal rugae. 2nd tergite 0.9× as long as wide. Thyridium transverse-oval. Ovipositor sheath pilose, 6.3× as long as wide and 0.9× as long as hind metatarsus, not distinctly narrowed and slightly bent upwards apically.

Color: black. Head reddish; face except red facial orbit brownish. Mandible except teeth and palps yellow. Stemmaticum and occiput brown. Flagellum blackish; three basal flagellomeres, scape and pedicel yellowish. Mesosoma black; hind edge and ventral spot on pronotum and tegula yellow. Tergites black; 2nd tergite with reddish-yellow band in apical 0.3; 3rd tergite reddish-yellow antero-medially, black laterally and apically. Legs yellow; hind coxa reddish; hind tibia cream-yellow, brown at apical 0.15 (1× tibial diameter); hind tarsomeres yellowish, with reddish tips. Pterostigma hyaline.

♂ unknown.

Remarks: This new species resembles *Mesochorus macrocephalus* STROBL but differs by its sparsely punctate mesopleuron, \pm widened temple and normal mandible which is not distinctly swollen as in *Mesochorus macrocephalus* STROBL.

Distribution: Only known from Far East Russia.

***Mesochorus (Stictopisthus) moravicus* (SCHWENKE, 1999) (fig. 64)**

Original: *Stictopisthus moravicus* SCHWENKE, 1999: 33, ♂.

Holotype: (♂) "Litovel (Moravia) 6.58 ex *Archips cr.*" (ZSM), type examined.

Description: ♂. Body length 3.4 mm. Flagellum missing. Temple moderately and roundly narrowed behind eye, dorsally $0.8\times$ as long as eye. OED $1.3\times$ ocellar diameter. Face coarsely punctate, its width $1.2\times$ combined length of face and clypeus and $1.1\times$ eye length, sides convergent ventrally. Mandible with two equal teeth. MI 0.5.

Mesosoma moderately depressed, c $2.1\times$ as long as high. Mesopleuron coarsely and rather densely punctate, speculum smooth and shining. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia slender, $2.3\times$ as long as wide, costula reaching at its middle. Area petiolaris as long as wide. Hind femur $3.8\times$ as long as wide. Areolet sessile frontally. Vein 1cu-a postfurcal by $0.4\times$ of their length; distal part of metacarpus length c. $0.8\times$ width of pterostigma.

1st tergite $2.3\times$ as long as wide; postpetiole coarsely aciculate. 2nd tergite $0.9\times$ as long as wide. Thyridium transverse, comma-shaped. Stylet long, not clubbed apically, c. $1.7\times$ as long as 2nd hind tarsomere.

Color: Body reddish-yellow. Mesoscutum with brownish spot antero-medially and with brownish lateral stripes; propodeum brown in basal $2/3$. 1st tergite black; 1st sternite yellow basally; 2nd tergite brown, with yellow band in apical 0.4 ; 3rd tergite completely yellow; following tergites brownish. Pterostigma hyaline.

♀ unknown.

Host: *Archips crataegana* (HÜBNER, 1799) (Lep., Tortricidae) (ZSM).

Distribution: Only known from Czech Republic (Moravia).

***Mesochorus (Stictopisthus) nemoralis* (SCHWENKE, 1999) (figs 10, 47, 65, 86)**

Original: *Stictopisthus nemoralis* SCHWENKE, 1999: 30, ♀♂.

Holotype: (♀) "Dessau 4 SW-SSW 18.5.1993 100/93 H. Zoerner" (SDEI, Müncheberg), type examined.

syn. *Mesochorus roccanus* SCHWENKE, 1999: 59, synonymized by RIEDEL (2019).

Holotype: (♂) "I, VR, Garda Rocca, 100-250 m, 20.5.83 Haeselb." (ZSM), type examined.

syn. nov. *Stictopisthus madeirensis* SCHWENKE, 1999: 31, ♀♂.

Holotype: (♀) "Madeira Machico V.82, ex *Palpita unionalis* via *Choeras suffolkensis*" (ZSM), type examined.

Description: ♀. Body length 3.0-3.5 mm. Flagellum with 26-27 segments; 1st flagellar segment $3.6-4.6\times$ as long as wide and $0.50-0.70\times$ as long as eye; 2nd segment $2.6-2.8\times$ and preapical segment $1.7-2.0\times$ as long as wide. Temple roundly narrowed behind eye, dorsally $0.7-0.8\times$ as long as eye. OED $1.4-1.8\times$ and OOD $0.9-1.0\times$ ocellar

diameter. Frons almost smooth. Face with coarse and irregular transverse rugose-punctuation, its width $1.2-1.3\times$ combined length of face and clypeus and $1.1-1.2\times$ eye length, with parallel sides. Clypeus impressed centrally, almost smooth. Mandible with two equal teeth. MI 0.4.

Mesosoma moderately to strongly depressed, $2.3-2.5\times$ as long as high. Mesoscutum densely punctate. Scuto-scutellar groove slit-shaped, smooth. Mesopleuron coarsely and rather densely punctate ventrally; speculum smooth and shining. Metapleuron with fine rather dense punctures. Propodeum completely carinate, but area basalis and area superomedia confluent. Sides of area superomedia narrowed in apical half; costula reaching at its middle. Area petiolaris as long as wide or slightly wider than long. Hind femur $3.0-3.3\times$ as long as wide. Inner apical spur of hind tibia $0.65\times$ as long as hind metatarsus. Hind claws without visible teeth. Areolet sessile frontally; vein 2m-cu reaching its middle. Vein 1cu-a strongly postfurcal by $0.8-1.0\times$ its length; postnervulus intercepted slightly distad its middle. Pterostigma $2.4-2.7\times$ as long as wide; distal part of metacarpus $1.0\times$ as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus slightly inclivous.

1st tergite $2.3-2.9\times$ as long as wide; postpetiole coarsely aciculate or striate. 2nd tergite $1.0-1.2\times$ as long as wide. Thyridium transverse, comma-shaped. Ovipositor sheath $4.8-5.2\times$ as long as wide and $0.9-1.0\times$ as long as hind metatarsus, not narrowed and slightly bent upwards apically.

Color: Black. Head reddish-brown or yellowish-brown; stemmaticum often and occiput brown to black. Mesoscutum blackish, with H-shaped central fuscous spot or four longitudinal fuscous stripes which are confluent frontally; side of pronotum, mesopleuron and metapleuron reddish-brown, mesopleuron sometimes blackish dorsally; mesosternum with blackish suffusion; propodeum blackish at anterior half, reddish-brown apically. 1st tergite blackish; 2nd tergite blackish, with large triangular yellowish spot in apical half; 3rd tergite with narrow yellow basal band or yellow basally and centrally, brown apically; following tergites brown, with narrow yellowish or greyish apical margins. Legs reddish-brown; hind coxa brownish; hind femur brown or with brown suffusion; hind tibia cream yellow, brownish in apical $0.2-0.3$ ($1\times$ tibial width); hind tarsus brown or blackish, metatarsus yellow in basal $2/3$. Pterostigma brownish.

♂. Body length 3.5-4.5 mm. Flagellum with 27-29 segments; 1st flagellar segment $6.0\times$ as long as wide and $0.60-0.63\times$ as long as eye. Temple moderately narrowed behind eye, dorsally $0.7-0.8\times$ as long as eye. OED $1.4-1.8\times$ ocellar diameter. Facial width $1.1-1.2\times$ combined length of face and clypeus and $1.1\times$ eye length, with parallel sides. Mandible with two equal teeth.

Mesosoma moderately depressed, $1.9-2.1\times$ as long as high. Mesoscutum densely punctate; mesopleuron with sparse to dense punctures. Propodeum completely carinate, but area basalis and area superomedia confluent. Hind femur $3.5-4.2\times$ as long as wide. Areolet pointed or sessile frontally; vein 1cu-a strongly postfurcal by $0.8\times$ its length. Pterostigma wide, $2.3-2.5\times$ as long as wide. Distal part of metacarpus long, length $1.0\times$ width of pterostigma.

1st tergite $2.6-2.8\times$ as long as wide; postpetiole coarsely aciculate. 2nd tergite $0.9-1.0\times$ as long as wide. Thyridium comma-shaped, at base of tergite. Stylet long, stick-shaped or slightly clubbed apically, $1.4-1.8\times$ as long as 2nd hind tarsomere.

Color: head yellow. Palps, gena, mandible (except teeth), face, frontal margin and hind edge of pronotum, tegula, wing base, and fore and mid coxae and trochanters cream-yellow. Flagellum yellow basally, \pm infusate distally. Mesosoma reddish-yellow; mesoscutum with two brownish to blackish lateral stripes and blackish fronto-median spot; propodeum black in frontal 1/2-2/3. 1st sternite dark reddish; 1st tergite black; 2nd tergite black, with triangular or arched yellow spot in apical half; 3rd tergite brown, with tongue-shaped yellow spot in basal 2/3; following tergites brown or vespoid. Legs yellow, hind femur with brownish suffusion apically, hind tibia cream-yellow, brownish in apical 0.1-0.2 (1.0-1.5 \times tibial width); hind tarsomeres yellowish, with \pm brown tips. Pterostigma brown, pale yellow proximally and sometimes distally.

Hosts: *Carcina quercana* (FABRICIUS, 1775) (Lep., Depressariidae) (ZSM), *Acleris forsskaleana* (LINNAEUS, 1758) (Lep., Tortricidae) (ZSM), *Apanteles (Choeras) dorsalis* (SPINOLA, 1808) (Hym. Braconidae) in *Palpita vitralis* (ROSSI, 1794) (Lep., Crambidae) (EDI, ZSM).

Remarks: This species is closely related to *Mesochorus flavescens* FONSCOLOMBE. It differs by a darker coloration of hind leg and pterostigma, stouter ovipositor sheath and transversely rugose-punctate face.

Distribution: West Palaearctic; examined material from Czech Republic*, Germany, Italy, Madeira.

***Mesochorus (Stictopisthus) nigrifrons nov.sp.* (figs 11, 33, 48, 66, 75)**

Holotype: (♀) “Güzeripl. Caucasus Zapov., Kasparyan 25 VI 1976” (St. Petersburg).

Paratypes: (♀) “Wood, Odessa region, 25 km yu Kaushani, Les, Kasparyan 12 VI 1974” (St. Petersburg); (♀) “SMTP, Trap 50 Coll 1223” (Stockholm); (3♂♂) “Bylyia, Chit. Region, birch 22 VI 975” (St. Petersburg), (♀ 2♂♂) “Turkey: Samsun University campus 41°22'N 36°11'E, 22.6.-4.7.2014 Barták, Kubik” (Linz and coll. Riedel); (♀) “25-28 VI 1999, Taman vill., Krasnodar reg., NNW Caucasus, leg. Osipov” (coll. Riedel).

Description: ♀. Body length 2.5-3.0 mm. Flagellum with 23-26 segments; 1st flagellar segment 5.8-6.0 \times as long as wide and 0.6-0.7 \times as long as eye; 2nd segment 4.8 \times and preapical segment c. 2 \times as long as wide. Temple strongly and roundly narrowed behind eye, dorsally 0.7-0.8 \times as long as eye. OED 2.0-2.2 \times ocellar diameter. Occipital carina complete. Face punctate, its width 1.1-1.2 \times combined length of face and clypeus and 1.2-1.3 \times eye length, with parallel sides. Malar space and ventral 0.3 of facial orbit striate. Mandible with two equally sized teeth. MI 0.8-1.0.

Mesosoma not depressed, 1.7-1.8 \times as long as high. Mesoscutum densely punctate medially, but almost smooth and shining laterally. Mesopleuron with \pm extended fine rugosity centrally, with very sparse coarse punctures ventrally and dorsally. Scuto-scutellar groove moderately widened, sometimes with fine longitudinal ridges. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia 2 \times as long as wide; costula reaching at its middle. Area petiolaris hexagonal, as long as wide or slightly longer. Hind femur 4.0-4.4 \times as long as wide. Areolet sessile frontally; vein 1cu-a strongly postfurcal by 0.7-1.3 \times its length. Pterostigma 3.0 \times as long as wide; distal part of metacarpus about as long as width of pterostigma.

1st tergite 2.3-2.7 \times as long as wide; postpetiole coarsely aciculate. 2nd tergite 0.8-0.9 \times as long as wide. Thyridium large, transversely oval, at base of tergite. Ovipositor sheath stick-shaped, 8.2-8.7 \times as long as wide and 0.8-0.9 \times as long as hind metatarsus, slightly bent upwards at apex.

Color: black. Face, stemmaticum and occiput brownish; orbits widely yellowish; malar space and mandible (except teeth) yellow to cream-yellow. Scape, pedicel, and 1st flagellomere (sometimes also 2nd flagellomere) yellowish, following flagellomeres fuscous. Mesosoma black; pronotum brownish, its margins paler. Metasoma brownish; 1st tergite black; 1st sternite rufous basally; 2nd tergite with a triangular yellowish spot in the apical 0.3-0.4. 3rd tergite brown to black, following tergites blackish, 6th and 7th tergites sometimes brownish. Legs yellowish; hind coxa brown; hind femur sometimes slightly darkened; hind tibia in apical 0.15 infusate; hind tarsomeres yellowish, with brownish tips. Pterostigma hyaline to ochreous-yellow.

♂. Body length 2.2 mm. Flagellum with 26-27 segments; 1st flagellar segment 0.73× as long as eye. Temple strongly narrowed behind eye, dorsally 0.8× as long as eye. OED 1.3× ocellar diameter. Facial width 1.0× combined length of face and clypeus and 1.1× eye length. MI 0.8. Mesosoma 1.7-1.8× as long as high. Mesopleuron punctate, with a small finely rugose central area. Hind femur 4.4× as long as wide. Pterostigma 3.0× as long as wide; vein 1cu-a strongly postfurcal by 0.8× its length. Stylet slightly clubbed at apex.

Color: Black. Face, mandible, clypeus, gena and orbits, scape, pedicel and basal two flagellomeres yellowish or reddish-yellow. Stemmaticum, occiput, vertex and flagellum distally brown. Mesosoma dark brown; pronotum, mesopleuron and metapleuron brownish-yellow. Metasoma brown; 1st sternite reddish at base; 2nd tergite pale yellow, with basolateral brown stripes; 3rd tergite with central yellow spot in the basal 2/3. Legs yellow; hind coxa reddish-yellow; hind tibia and tarsomeres with narrow darkened apices; distal hind tarsomere brown. Pterostigma hyaline.

Remarks: This new species is closely related to *Mesochorus (Stictopisthus) formosus* BRIDGMAN, but differs by the strongly narrowed temple and partly rugose mesopleuron.

Distribution: Sweden, Russia, Turkey, Ukraine.

***Mesochorus (Stictopisthus) oranae* (SCHWENKE, 1999)**

Original: *Stictopisthus oranae* SCHWENKE, 1999: 32, ♂

Holotype: (♂) “Serooskerke/NL, 24.8.67, De Jong” (ZSM), type was initially glued on card but the labeled card in the ZSM is actually empty. The type is apparently lost.

Description (translated from SCHWENKE 1999: 32): ♂. 2.8 mm. As *tenuigaster*, but: temple as long as eye width; 2nd and 3rd tergites wider than long. 1st tergite red basally, widely whitish apically; 3rd tergite in apical half and following tergites black (-brown). Color of metasoma: red-black-whitish-black.

Host: *Adoxophyes orana* (FISCHER VON RÖSLERSTAMM, 1834) (Lep., Tortricidae).

Distribution: Only known from Netherlands.

***Mesochorus (Stictopisthus) persicus* RIEDEL, AMERI, TALESHEI & EBRAHIMI, 2019, new ♀ (figs 12, 49, 67)**

Holotype: (♂) „Iran: Khutestan Prov. Shoush, Karkheh National Park, Perslan Fallow Deer Sanctuary. N 32°04'36.5'' E 48°14'15.6''. March 11-May 10, 2015, 45 m, Malaise trap, E. Gilasian” (coll. RIEDEL).

Additional material: (♀) Iran, Fars, Darab, Layzangan, Dashte Gol, 27.iv.-7.v.2019, leg. A. Mohammadi (coll. Riedel).

Description: ♀: Body length 3.4 mm. Flagellum with 23 segments; 1st flagellar segment 4.6× as long as wide and 0.44× as long as eye; 2nd segment 3.3× and preapical segment 1.9× as long as wide. Temple distinctly and roundly narrowed behind eye, dorsally 0.6× as long as eye. OED 1.4-1.5× ocellar diameter. Frons with fine medial longitudinal ridge below anterior ocellus. Face with coarse punctures, its width 1.0× eye length and 1.3× combined length of clypeus and face. MI 0.7.

Mesosoma slightly depressed, 1.8× as long as high. Mesopleuron coarsely and rather densely punctate; metapleuron with denser punctures. Scuto-scutellar groove slit-shaped, smooth. Area basalis and area superomedia confluent; area superomedia 1.8× as long as wide. Area petiolaris 1.0× as long as wide. Hind femur 3.4× as long as wide. Hind claws without visible teeth. Areolet oblique, pointed frontally; vein 2mc-u reaching distad its middle; vein 1cu-a strongly postfurcal by 0.6× its length. Postnervulus intercepted in its middle; Pterostigma 2.8× as long as wide. Distal part of metacarpus short, 0.2× as long as pterostigma width. Hind wing with 4 distal hamuli; nervellus slightly inclivous.

1st tergite 2.3× as long as wide; postpetiole with superficial aciculation. 2nd tergite 0.9× as long as wide. Ovipositor sheath 5.8× as long as wide and 0.76× as long as hind metatarsus, not distinctly narrowed but slightly bent upwards apically.

Color: Flagellum ochreous. Face, clypeus, gena, wide orbits, scape and pedicel yellow. Frons medially, stemmaticum and occiput reddish. Mesosoma red; pronotum mainly, 4 longitudinal stripes on mesoscutum, sides of scutellum yellow. Basal half of propodeum blackish, apical half red. Base of 1st sternite rufous; 1st tergite black, sometimes reddish basally, apical third yellowish; 2nd tergite yellow, with narrow brownish baso-lateral stripes; 3rd to 6th tergites yellow; 7th tergite brownish dorsally. Ovipositor sheath blackish. Fore and mid legs cream-yellow; hind leg yellowish, hind femur apically and hind tibia basally ± cream-yellow. Wings hyaline. Pterostigma hyaline, with brownish caudal margin.

♂. Body length 3 mm. Flagellum with 22 segments; 1st flagellar segment 5.5× as long as wide and 0.57× as long as eye; 2nd segment 3.5× and preapical segment 2.4× as long as wide. Temple strongly and roundly narrowed behind eye, dorsally 0.6× as long as eye. OED 1.1× and OOD 1.0× ocellar diameter. Occipital carina complete medially. Width of face 1.2× combined length of face and clypeus and 1.1× eye length, with granulation and superficial punctures. Inner eye margins slightly convergent ventrally. Clypeus with coarse punctures. MI 0.6.

Mesosoma not depressed, 1.7× as long as high. Mesopleuron and metapleuron with dense and partly rugose punctures. Scuto-scutellar groove smooth. Area basalis and area superomedia confluent. Area superomedia almost hexagonal, c. 1.8× as long as wide, anterior transverse carina at frontal 0.4 of area length. Area petiolaris about as long as wide. Hind femur 3.6× as long as wide. Hind claws without visible teeth. Pterostigma wide, 2.4× as long as wide. Areolet oblique; vein 2m-cu distad its middle; vein 1cu-a postfurcal (by 0.7× its length), strongly inclivous. Distal part of metacarpus very short and stub-shaped. 1st tergite c. 2.0× as long as wide, postpetiole distinctly striate. 2nd tergite 1.3× as wide as long. Thyridium comma-shaped. Stylet of paramere 1.5× as long as 2nd hind tarsomere, slightly clubbed apically.

Color: reddish-yellow. Flagellum reddish. Head reddish; palps, mandible except teeth, clypeus, face and wide frontal orbit up to vertex ivory. Pronotum and mesopleuron rufous; mesoscutum brownish, with 4 longitudinal yellow stripes, confluent frontally;

scutellum reddish, with lateral yellow stripes; propodeum black in basal 2/3. 1st tergite black, reddish basally and with apical cream-yellow band; 2nd tergite cream-yellow, with brownish spots baso-laterally; 3rd tergite reddish, with triangular cream-yellow spot basally; following tergites reddish, with slightly darkened sides. Legs reddish; fore and mid coxae and trochanters cream-yellow; fore and mid tibiae cream-yellow basally; hind tibia cream-yellow, brown in apical 1/10; hind metatarsus apically and 2nd to 5th hind tarsomeres blackish. Pterostigma brown, with pale spot proximally.

Remarks: This species resembles *M. maroccanus* (SCHWENKE), but differs by larger ocelli, brownish pterostigma, infusate apex of hind tibia and largely black hind tarsus.

Distribution: Only known from Iran.

***Mesochorus (Stictopisthus) punjabi nov.sp.* (figs 13, 32, 50, 68, 79)**

Holotype: (♀) "Pakistan-Punjab, Islamabad, Area of NARC, Malaise trap, 09.VI.-11.VI.2007, leg. K. Schönitzer" (ZSM).

Description: ♀. Body length 2.1 mm. Flagellum with 32 segments; 1st flagellar segment 7.0× as long as wide, 0.62× as long as eye and 1.4× as long as 2nd segment; 2nd segment 5.0× and preapical segment 1.5× as long as wide. Temple distinctly and roundly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.8× and OOD 0.8× ocellar diameter. Occipital carina widely obsolete medially. Frons with transverse microsculpture. Face coarsely punctate, its width 1.0× combined length of face and clypeus, lateral margins slightly convergent. Mandible with two equally sized teeth. MI 0.8.

Mesosoma not depressed, 1.6× as long as high. Mesoscutum densely punctate, shining. Mesopleuron densely and coarsely punctate. Scuto-scutellar groove with 5 coarse longitudinal ridges. Propodeum completely carinate. Area basalis trapezoid, c. 2× as wide as long. Area superomedia 1.5× as long as wide and 1.0× as long as area petiolaris; costula reaching at its middle. Area petiolaris hexagonal, 1.2× as long as wide. Hind femur 4.2× as long as wide. Areolet sessile frontally and wider than long, vein 2m-cu reaching at its middle; vein 1cu-a strongly postfurcal by 0.5× its length. Postnervulus intercepted far basad its middle. Distal part of metacarpus long, as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus slightly reclivous.

1st tergite 2.8× as long as wide; postpetiole with some longitudinal rugae. 2nd tergite 1.2× as long as wide. Thyridium transverse, comma-shaped. Ovipositor sheath 8.2× as long as wide and 0.9× as long as hind metatarsus, moderately narrowed in apical 0.5 and slightly upcurved apically, pilose.

Color: reddish-yellow. Flagellum brownish in distal half. Palps, mandible except teeth, malar space, tegula and fore and mid legs yellowish. 2nd tergite yellowish, with brownish triangular stripes antero-laterally. 3rd tergite yellowish, slightly darkened in apical half. Hind tibia yellowish, slightly infusate basally and in apical 0.1. Pterostigma hyaline.

♂ unknown.

Remarks: The species is characterized by the stout mesosoma, densely punctate mesopleuron, reclivous nervellus of hind wing and strongly striate scuto-scutellar groove.

Distribution: Only known from Pakistan.

***Mesochorus (Stictopisthus) ranini* VIKBERG, 2017** (figs 14, 17, 36, 51, 70, 78, 84)

Holotype: (♀) “Fennia Li Utsjoki KK 18.6.1960, leg. V. Vikberg” (Helsinki), type examined.

Additional material: (♂) Russia, East Siberia, lake Baikal, Cape Shartlai, 20-21 VI 2004, leg. O. Berlov (coll. Riedel).

Description: ♀. Body length 2.4-2.6 mm. Flagellum with 20 segments; 1st flagellar segment 2.9× as long as wide and 0.40× as long as eye; 2nd segment 2.1× and preapical segment 1.5× as long as wide; distal segments ± moniliform. Temple roundly narrowed behind eye, dorsally 0.7× as long as eye. OED 2.4-2.6× ocellar diameter. Facial width 1.3-1.4× combined length of face and clypeus and 1.1× eye length, transversally rugose-striate, sides slightly convergent ventrally. Mandible with two equal teeth. MI 0.6-0.7.

Mesosoma slightly depressed, 2.1× as long as high. Mesopleuron punctate dorsally and finely rugose-punctate ventrally. Area basalis and area superomedia confluent. Area superomedia c. 2× as long as wide; costula reaching at its middle. Area petiolaris 0.8× as long as wide and 0.31-0.33× as long as propodeum. Hind femur 3.3-3.4× as long as wide. Hind metatarsus 0.45-0.50× as long as hind tibia. Hind claws without visible teeth. Areolet pointed frontally, vein 2m-cu reaching at its middle. Vein 1cu-a postfurcal by 0.5× its length. Pterostigma wide, 2.7× as long as wide; distal part of metacarpus short, stub-shaped, less than 0.5× as long as width of pterostigma.

1st tergite 2.4× as long as wide; postpetiole with longitudinal rugae. 2nd tergite 0.8-0.9× as long as wide. Ovipositor sheath 5.0-5.5× as long as wide and 0.8-0.9× as long as hind metatarsus, with few setae, slightly bent upwards apically.

Color: Face, clypeus, malar space and mandible except teeth reddish. Orbits brownish-yellow. Frontal orbit with widened spot opposite to lateral ocellus. Genal orbit narrowly yellow, outer orbit otherwise reddish. Palps brownish. Frons medially, ocellar field and occiput black. Scape brownish black, pedicel and flagellum pale brownish, slightly infusate distally. Mesosoma black. Tegula brownish yellow, base of wing pale yellow. Mesoscutum with faint reddish stripes. Metasoma black; 2nd tergite with reddish brown band in basal half and with narrow yellow apical band; apical tergites with narrow pale apical margins. Ovipositor sheath blackish. Legs brownish, base of mid coxa and entire hind coxa blackish, hind femur brownish infusate, except apically. Hind tibia pale, basally and apically slightly infusate, distal hind tarsomeres slightly infusate. Wings subhyaline, veins pale brown, pterostigma brownish, slightly paler proximally and distally.

♂. Body length 2.9-3.1 mm. Flagellum with 21-22 segments; 1st flagellar segment 4.0× as long as wide and 0.65× as long as eye; 2nd segment 3.0× and preapical segment c. 2× as long as wide. Temple roundly narrowed behind eye, dorsally 0.7× as long as eye. OED 1.3-1.7× ocellar diameter. Frons finely granulated. Face coarsely but superficially punctate, partly with fine transverse aciculation, its width 1.2-1.3× combined length of face and clypeus and 1.2× eye length, with parallel lateral margins. Mandible with two equally sized teeth. MI 0.5-0.7.

Mesosoma slightly depressed, 1.9-2.0× as long as high. Mesopleuron coarsely and densely punctate, speculum smooth and shining. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia c. 2× as long as wide; costula reaching at its middle. Area petiolaris as long as wide, finely rugulose. Hind femur 3.6-4.0× as long as wide. Hind claws with three visible basal teeth. Areolet sessile

frontally, very oblique; vein 2m-cu reaching proximad its middle. Vein 1cu-a almost interstitial. Distal part of metacarpus very short, stub-like, $0.5\times$ as long as width of pterostigma.

1st tergite $2.0\text{--}2.4\times$ as long as wide; postpetiole with coarse striation. 2nd tergite $0.8\text{--}1.0\times$ long as wide. Thyridium transverse, comma-shaped. Stylet slightly clubbed at apex, $1.0\times$ as long as 2nd hind tarsomere.

Color: black. Face reddish-yellow. Mandible, gena, facial and frontal orbits cream-yellow. Vertical orbit with large wide yellowish spot, almost reaching lateral ocelli. Outer orbit more yellowish-red. Flagellum brown. Mesosoma black, mesoscutum with an indistinct dark reddish H-sized spot. Fore coxa sometimes and mid coxa brown; hind coxa black. Legs otherwise reddish-yellow; hind femur brownish or blackish; hind tibia yellow, fuscous in apical 0.15 ($1\times$ tibial width). Metasoma black, 2nd tergite with narrow cream-yellow apical margin. Pterostigma pale ochreous.

Hosts unknown.

Distribution: Transpalearctic; studied material from Finland and East Siberia*.

***Mesochorus (Stictopisthus) ruscicus* (SCHWENKE, 1999) (fig. 16)**

Original: *Stictopisthus ruscicus* SCHWENKE, 1999: 32, ♂.

Holotype: (♂) "Kishinev/UdSSR [Moldavia] 20.VI.08, Talitzkij" (ZSM), type examined.

Description: ♂. Body length 4.0 mm. Flagellum with 24–28 segments; 1st flagellar segment $0.63\times$ as long as eye; preapical segment $2.0\times$ as long as wide. Temple moderately narrowed behind eye, dorsally $0.7\times$ as long as eye. OED $1.2\text{--}1.3\times$ and OOD $1.4\times$ ocellar diameter. Face densely punctate, its width $1.1\text{--}1.2\times$ combined length of face and clypeus and $1.1\text{--}1.2\times$ eye length, sides parallel or slightly divergent ventrally. Mandible with two equal teeth. MI $0.6\text{--}0.8$. Mesosoma moderately depressed, $1.8\text{--}2.1\times$ as long as high. Mesoscutum densely punctate. Mesopleuron coarsely and densely punctate, shining. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia $1.5\times$ as long as wide; costula reaching at its middle. Area petiolaris large, hexagonal, as long as wide. Hind femur $3.3\text{--}3.6\times$ as long as wide. Areolet sessile frontally. Vein 1cu-a strongly postfurcal by $0.5\text{--}0.8\times$ its length. Pterostigma $2.5\text{--}3.5\times$ as long as wide. Distal part of metacarpus c $0.8\times$ as long as width of pterostigma. Hind wing with 5 distal hamuli.

1st tergite $2.2\times$ as long as wide; postpetiole coarsely striate. 2nd tergite $0.8\text{--}0.9\times$ as long as wide. Thyridium transverse, comma-shaped. Stylet stick-shaped, not clubbed or pointed apically, $1.2\text{--}1.5\times$ as long as 2nd hind tarsomere.

Color: Head, pronotum and tegula yellow. Flagellum yellow basally, distal flagellomeres \pm ochreous or brownish. Mesosoma reddish-yellow; mesoscutum with a median and two lateral ochreous or brownish stripes; propodeum brownish in basal 2/3. 1st tergite black, usually reddish basally, 1st sternite rufous in basal half. 2nd tergite blackish, with large triangular yellow mark in apical 2/3. 3rd tergite yellow, brown in apical 1/3–1/4; following tergites brownish, slightly vespid. Legs yellow; hind tibia ivory, brownish in apical $0.1\text{--}0.2$; hind tarsomeres ivory, with \pm brownish tips. Pterostigma pale brownish, sometimes hyaline centrally.

♀ unknown.

Distribution: Transpalearctic; examined material from Moldavia, and Russia* (St. Petersburg, Arkhangelsk region, Primorje region).

***Mesochorus (Stictopisthus) tenuigaster* (SCHWENKE, 1999) (figs 23, 53, 71, 87)**

Original: *Stictopisthus tenuigaster* SCHWENKE, 1999: 31, ♂.

Holotype: (♂) "München/D 5.6.69, W. Schwenke" (ZSM), type examined.

Additional material: (♂) Turkey: Akyaka, 37°03'N 28°20'E, 3 m, pasture & salty meadow, V. Bartak, ix.2012 (Linz).

Description: ♂. Body length 4.0 mm. Flagellum with 31-33 segments; 1st flagellar segment 5.0-5.5× as long as wide and 0.58-0.66× as long as eye; 2nd segment 3.8-4.7× and preapical flagellomere 2.5× as long as wide. Temple strongly narrowed behind eye, dorsally 0.6× as long as eye. OED 1.2× and OOD 0.9× ocellar diameter. Occipital carina complete. Frons with fine transverse aciculation laterally. Face coarsely punctate, its width 1.0× combined length of face and clypeus and 0.9-1.1× eye length, sides slightly convergent ventrally. Mandible with two equal teeth. MI 0.3-0.4.

Mesosoma not depressed, 1.7-1.8× as long as high. Mesopleuron with sparse punctures ventrally, speculum smooth and shining. Scuto-scutellar groove with 7 longitudinal ridges. Propodeum completely carinate. Area basalis closed apically. Area superomedia short, 1.5× as long as wide; costula reaching at its middle. Area petiolaris longer than wide. Legs slender; hind femur 4.5× as long as wide. Inner apical spur of hind tibia 0.51× as long as hind metatarsus. Areolet sessile or shortly stalked frontally, oblique; vein 2m-cu reaching proximad its middle. Vein 1cu-a postfurcal by 0.5-1.0× its length. Postnervulus intercepted slightly basad its middle. Distal part of metacarpus long, 1.5× as long as width of pterostigma. Hind wing with 4 distal hamuli; nervellus slightly reclivous.

Metasoma very long and slender; 1st tergite with fine lateral carinae, 3.4× as long as wide; postpetiole with coarse aciculation. 2nd tergite 2.2-2.5× as long as wide. Thyridium triangular. Stylet slightly clubbed at apex, 0.9-1.0× as long as 2nd hind tarsomere.

Color: reddish-yellow. Mesoscutum with two indistinct submedian yellowish longitudinal stripes; propodeum brown in basal 2/3. 1st sternite yellowish in basal half, 1st tergite yellowish apically; 2nd tergite with brownish sides; 3rd tergite brownish in apical 2/3; following tergites with indistinct median brownish spots. Legs yellowish; hind tibia with wide brownish-yellow rings at base and apex. Pterostigma hyaline.

♀ unknown.

Remarks: The ♂ resembles the Eastern Palearctic *Mesochorus chinensis* (UCHIDA, 1942). I was not able to study the type material of *M. chinensis*, but both species are probably synonymous.

Distribution: Examined material from Germany and Turkey*.

***Mesochorus (Stictopisthus) unicolor* (THUNBERG, 1824) (fig. 15, 52, 72, 85)**

Original: *Cryptus (Mesochorus) unicolor* THUNBERG, 1824: 315, ♂.

Lectotype: (♂) "Uppsala Univ. Zool. Mus. Thunbergsaml. nr. 25273 *Ichneumon unicolor* Sv. Typ" (Uppsala), designated by Horstmann, 2004, type not examined.

syn. *Cryptus (Mesochorus) complanatus* HALIDAY, 1838: 114, ♀.

Lectotype: (♀) "3450" (Dublin), synonymized by SCHWENKE (1999: 31), type not examined.

syn. *Mesochorus aciculatus* BRIDGMAN, 1881: 162, ♀.

Type lost (FITTON 1976), synonymized by SCHWENKE (1999: 31).

syn. *Mesochorus laticeps* THOMSON, 1886: 344, ♀.

Lectotype: (♀) "Bök 8/84" (Lund), synonymized by SCHWENKE (1999: 31), type not examined.

Description: ♀. Body length 3.0-3.9 mm. Flagellum with 23-28 segments; 1st flagellar segment 3.1-3.7× as long as wide and 0.45-0.50× as long as eye; 2nd segment 2.2-2.6× and preapical flagellomere 1.8× as long as wide. Head wide, 2.2× as wide as long. Temple parallel or slightly widened behind eye, moderately narrowed apically, dorsally 0.8× as long as eye. OED 1.9-2.3× and OOD 1.0× ocellar diameter. Occipital carina complete medially. Frons punctate medially, almost smooth laterally. Face punctate centrally, with some transverse irregular striae laterally, its width 1.4-1.5× combined length of clypeus and face and 1.2-1.3× eye length. Dorsal mandibular tooth often larger than ventral tooth. Clypeus slightly impressed, coarsely punctate. MI 0.6.

Mesosoma strongly depressed, 2.5-2.9× as long as high. Mesoscutum with moderately dense punctures (intervals as long as their diameter), with finer sparse punctures laterally. Mesopleuron with rather dense to dense punctures ventrally; punctures of metapleuron finer and denser. Scuto-scutellar groove slit-shaped, smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia c. 2× as long as wide; costula reaching at its middle. Area petiolaris hexagonal, as long as or slightly as long as wide. Fore tibia swollen, 2.2-2.3× as long as wide. Hind femur stout, 2.8-3.0× as long as wide. Inner apical spur of hind tibia 0.63× as long as hind metatarsus. Hind claws without visible teeth. Areolet sessile frontally; vein 2m-cu reaching its middle. Vein 1cu-a strongly postfurcal by 0.7-1.0× its length; distal part of metacarpus about as long as width of pterostigma. Hind wing with 4-5 distal hamuli. Nervellus of hind wing vertical or slightly inclivous.

1st tergite 2.2-2.4× as long as wide; postpetiole aciculate. 2nd tergite 0.9× as long as wide. Thyridium comma-shaped, transverse. Ovipositor sheath 4.2-5.7× as long as wide and 0.9-1.2× as long as hind metatarsus, not distinctly narrowed and slightly bent upwards apically.

Color: black. Palps, mandible and tegula yellow. Flagellum brownish, basal flagellomeres yellowish. Face yellowish or reddish-yellow; frons and wide orbits reddish-yellow; stemmaticum and occiput brown or black. Mesosoma black; mesoscutum sometimes with dark reddish H-shaped central spot; pronotum, mesopleuron and metapleuron in Eastern Palaearctic specimens ± reddish. 1st tergite black; 2nd tergite with yellow band in apical 0.3-0.4; 3rd tergite yellow baso-medially, brown laterally and apically; following tergites brownish. Legs yellowish; mid coxa reddish, sometimes brownish; hind coxa often brown dorsally or ± black, hind femur sometimes with brownish suffusion, hind tibia usually narrowly brown apically (0.5× tibial width). Pterostigma hyaline or yellowish.

♂. Body length 4.0 mm. Flagellum with 23-28 segments; 1st flagellar segment 5.6× as long as wide and 0.57-0.62× as long as eye; 2nd segment 4.2× and preapical segment 2.0× as long as wide. Temple moderately and roundly narrowed behind eye. OED 1.5× ocellar diameter. Frons and occiput with sparse punctures. Face densely punctate, its width 1.3× combined length of face and clypeus and 1.1× eye length, sides convergent ventrally. Mandible with two equally sized teeth, sometimes dorsal tooth slightly larger. MI 0.5.

Mesosoma moderately depressed, 1.9-2.0× as long as high. Mesoscutum and mesopleuron with coarse rather dense punctures, shining; pronotum smooth. Propodeum completely carinate, but area basalis and area superomedia confluent. Area superomedia c. 2× as long as wide; costula reaching at its middle. Area petiolaris large, hexagonal, as long as or slightly as long as wide. Hind femur 3.5-3.9× as long as wide. Wing venation as in ♀.

1st tergite 2.2-2.5× as long as wide; petiole and postpetiole coarsely aciculate, striae almost appearing as dorso-lateral carinae. 2nd tergite 0.8-1.0× as long as wide. Thyridium large, transverse, on base of tergite. Stylet pointed apically, 1.6-1.7× as long as 2nd hind tarsomere.

Color: face yellow; orbits cream-yellow; head otherwise yellowish-red. Mesosoma yellow; mesoscutum with brownish spots laterally and frontal-medially. Propodeum brown, apical 1/3 yellowish. 1st tergite black, 1st sternite sometimes rufous basally; 2nd tergite brown, with yellow band in the apical 0.3-0.4; 3rd tergite yellow, with apical brownish band; following tergites yellowish-brown and slightly vespoid. Legs yellow, hind tibia and hind tarsomeres slightly fuscous apically. Pterostigma hyaline.

Hosts: *Catoptilia falconipennella* (ÜBERNER, 1813) (Lep., Gracillariidae) (EDI), *Pholesetor* sp. (Hym. Braconidae) in *Catoptilia rufipennella* (ÜBERNER, 1813) (Lep., Gracillariidae) (EDI), Microgastrinae (Hym. Braconidae) in *Ancylis upupana* (TREITSCHKE, 1835) (Lep., Tortricidae) (ZSM).

Remarks: The specimen reared from *Ancylis upupana* in the ZSM determined as “*macrocephalus*” and mentioned under this species in SCHWENKE (1999: 29) belongs to *M. unicolor*.

Distribution: Transpalearctic; examined material from Austria, Azerbaijan*, Belgium, Byelorussia*, Germany, Russia (Murmansk region, Karelia, Tuva region, Far East Russia), Slovakia*, Sweden, and United Kingdom.

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Zusammenfassung

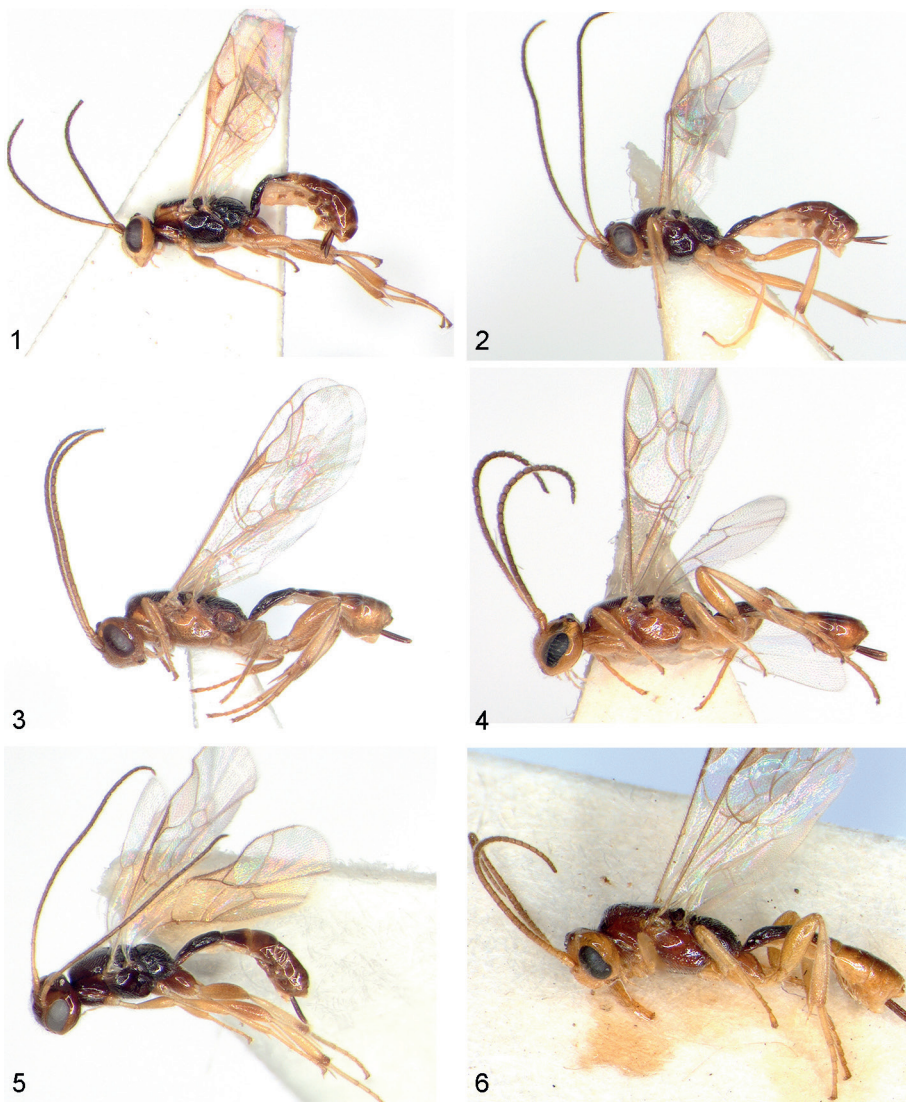
In der vorliegenden taxonomischen Studie werden die Arten der Gattung *Mesochorus* GRAVENHORST (Subgenus *Stictopisthus* THOMSON) der paläarktischen Region untersucht und revidiert. Als neu werden folgende Arten beschrieben: *Mesochorus (Stictopisthus) longistylus* nov.sp. aus Italien, *Mesochorus (Stictopisthus) mandibulator* nov.sp. aus der Mongolei, *Mesochorus (Stictopisthus) nigrifrons* nov.sp. aus Europa und Russland sowie *Mesochorus (Stictopisthus) punjabi* nov.sp. aus Pakistan. *Stictopisthus sacromontis* SCHWENKE, 1999 ist ein neues Synonym von *Mesochorus (Stictopisthus) bilineatus* THOMSON, 1886. *Stictopisthus madeirensis* SCHWENKE, 1999 wird mit *Mesochorus (Stictopisthus) nemoralis* (SCHWENKE, 1999)

synonymisiert. *Stictopisthus hispanicus* SCHWENKE, 1999 ist ein neues Synonym von *Mesochorus* (*Stictopisthus*) *flavescens* FONSCOLOMBE, 1852 und *Stictopisthus polonius* SCHWENKE, 1999 wird mit *Mesochorus* (*Stictopisthus*) *formosus* BRIDGMAN, 1882 synonymisiert. *Mesochorus* (*Stictopisthus*) *dilutoides* wird als neuer Name für *Stictopisthus dilutus* SCHWENKE, 1999, präokkupiert durch *Mesochorus dilutus* RATZEBURG, 1844, eingeführt. Für *Mesochorus* (*Stictopisthus*) *maroccanus* (SCHWENKE, 1999) und *Mesochorus* (*Stictopisthus*) *ranini* VIKBERG, 2017 werden die bisher unbekannten ♂♂ und für *Mesochorus* (*Stictopisthus*) *persicus* RIEDEL et al., 2019 das unbekannte ♀ beschrieben. Alle Arten werden beschrieben und illustriert und ein neuer Bestimmungsschlüssel für die paläarktischen Untergattungen von *Mesochorus* und die behandelten *Stictopisthus*-Arten vorgestellt.

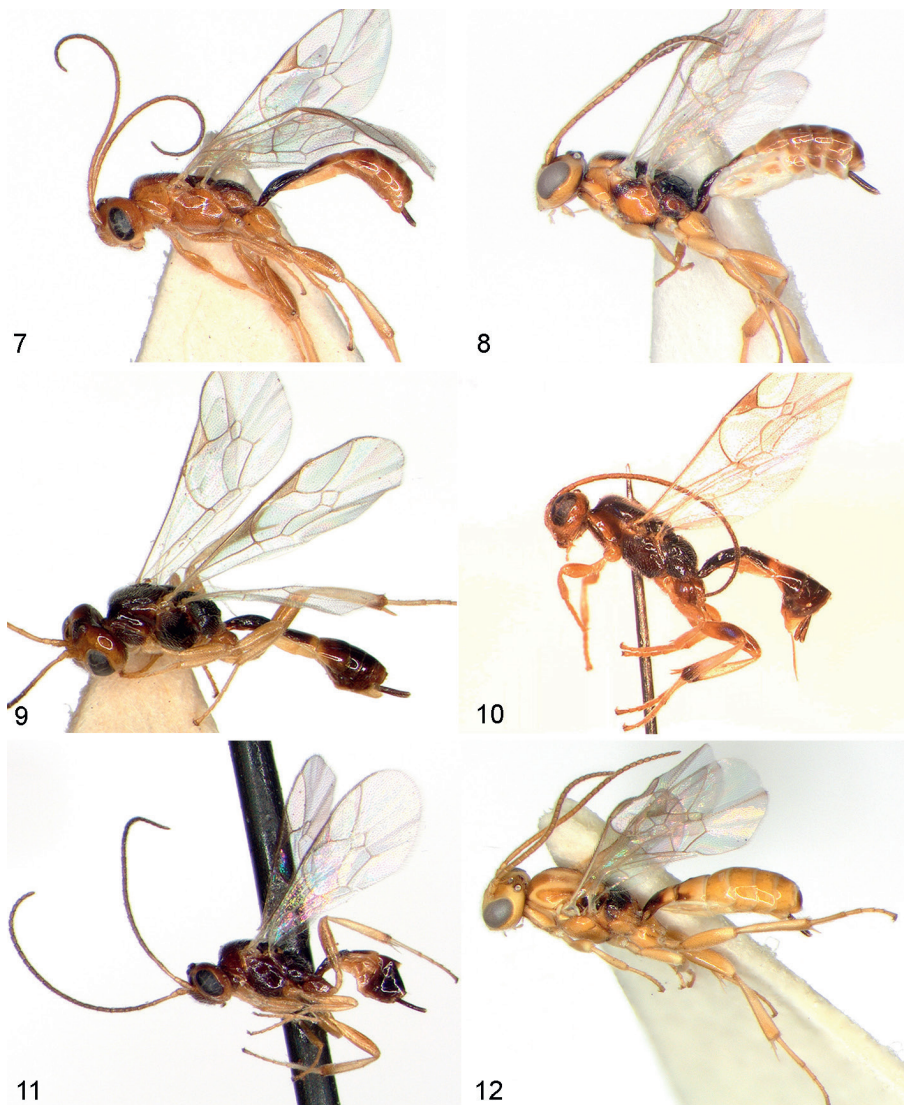
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Figs 1-6: Habitus of ♀♀, lateral view: (1) *Mesochorus bilineatus* THOMSON; (2) *M. cuspidatus* (SCHWENKE); (3) *M. dilutoides* RIEDEL; (4) *M. flavescens* FONSCOLOMBE; (5) *M. formosus* BRIDGMAN; (6) *M. macrocephalus* STROBL.



Figs 7-12: Habitus of ♀♀, lateral view: (7) *Mesochorus mandibulator* nov.sp. HT; (8) *M. maroccanus* (SCHWENKE); (9) *M. megacephalus* nov.sp. HT; (10) *M. nemoralis* (SCHWENKE) HT; (11) *M. nigrifrons* nov.sp. HT; (12) *M. persicus* RIEDEL et al.



Figs 13-15: Habitus of ♀♀, lateral view: (13) *Mesochorus punjabi* nov.sp. HT; (14) *M. ranini* VIKBERG HT; (15) *M. unicolor* (THUNBERG). **Figs 16-18:** Habitus of ♂♂, lateral view: (16) *M. russicus* (SCHWENKE) HT; (17) *Mesochorus ranini* VIKBERG; (18) *M. longistylus* nov.sp. HT.



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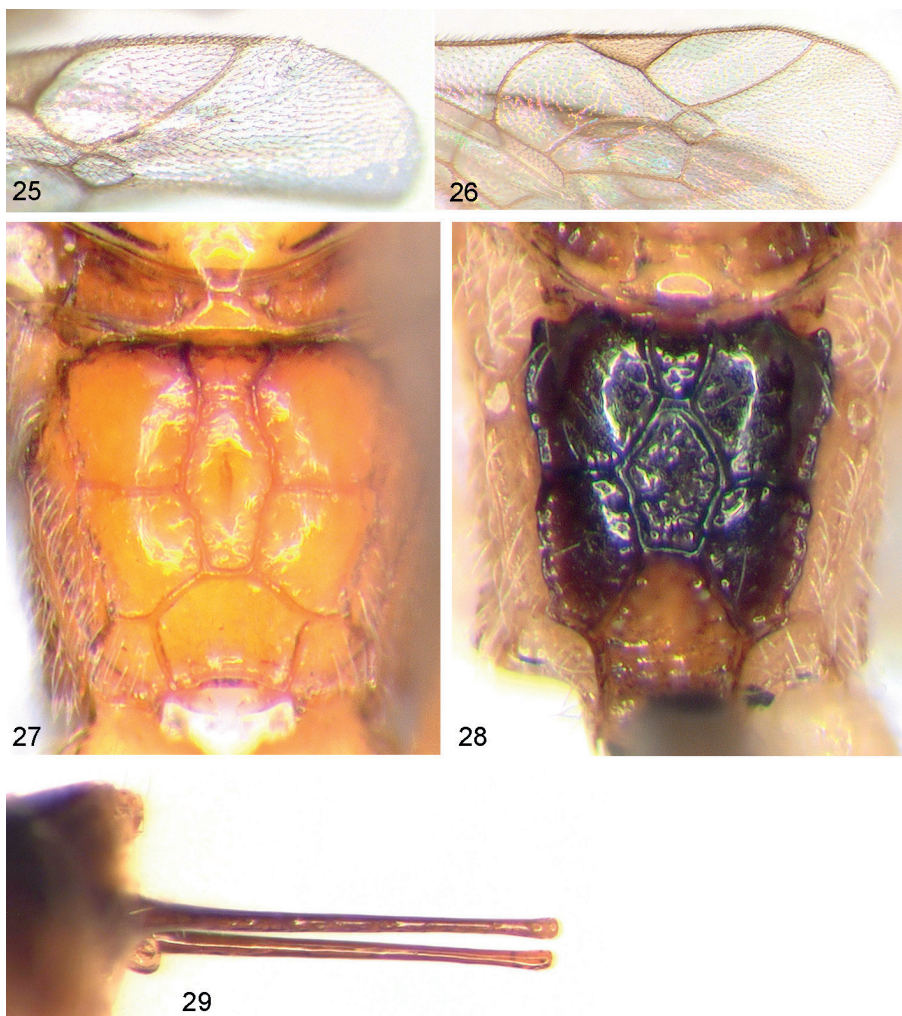


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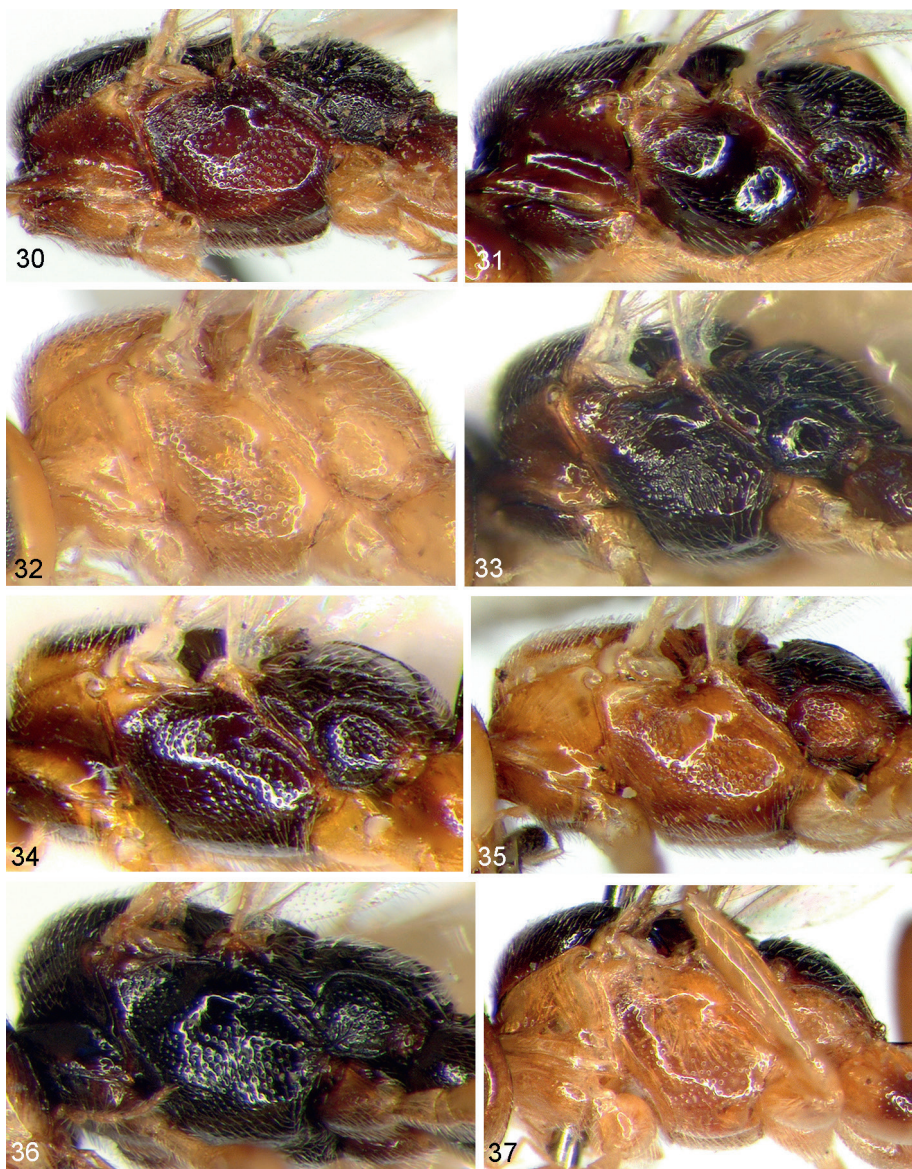


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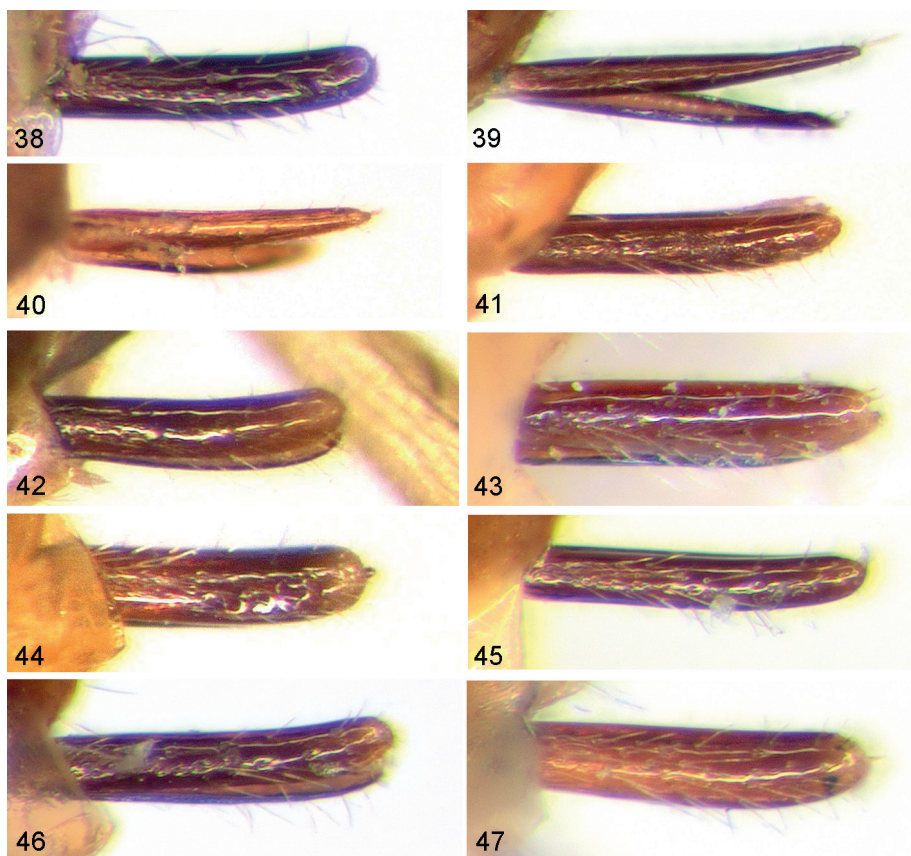
Figs 19-24: Habitus of ♂♂ from lateral: (19) *Mesochorus dilutoideus* RIEDEL; (20) *M. formosus* BRIDGMAN; (21) *M. macrocephalus* STROBL HT; (22) *M. maroccanus* (SCHWENKE); (23) *M. fraxini* (SCHWENKE) HT; (24) *M. tenuigaster* (SCHWENKE) HT.



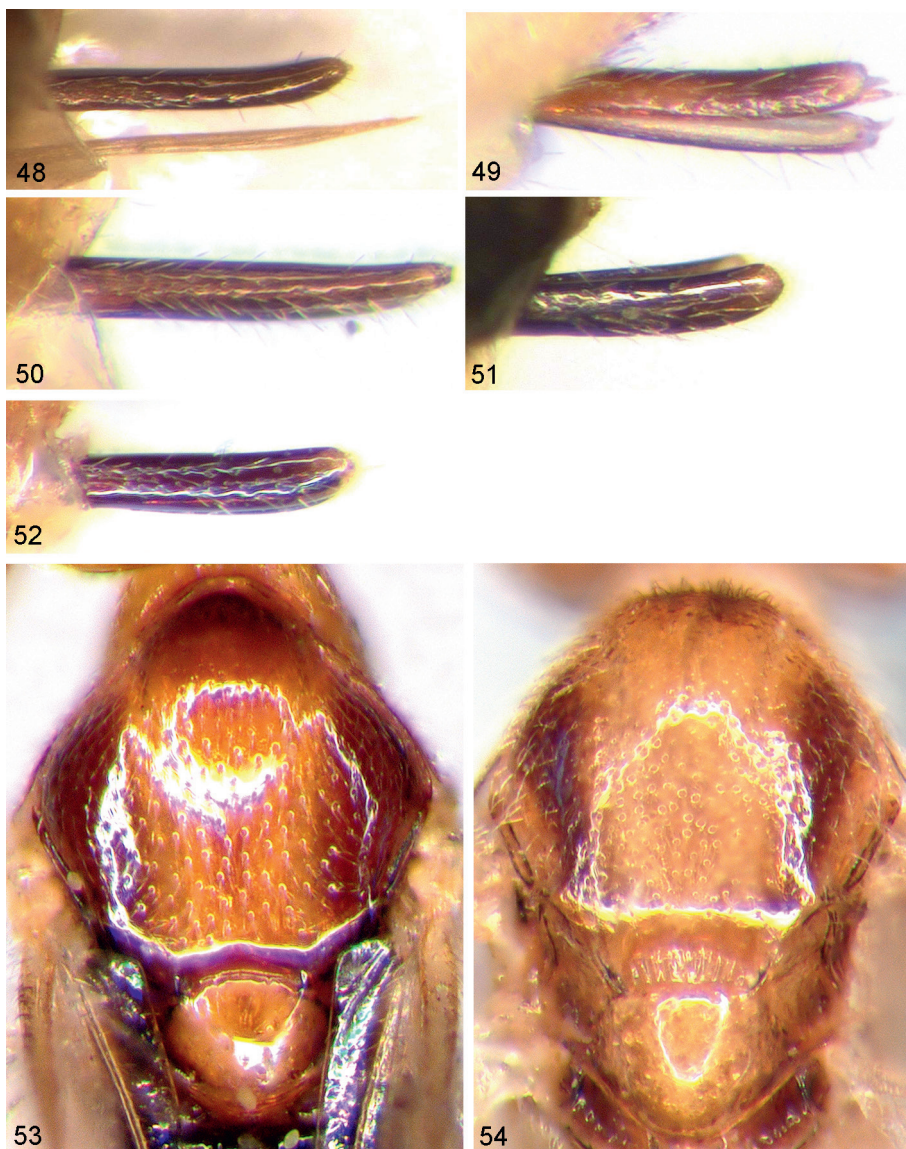
Figs 25-26: Fore wing of ♀♀, dorsal view: (25) *Mesochorus bilineatus* THOMSON; (26) *M. formosus* BRIDGMAN. **Figs 27-28:** Propodeum of ♂♂, dorsal view: (27) *Mesochorus maroccanus* (SCHWENKE); (28) *M. tenuigaster* (SCHWENKE). **Fig. 29:** *Mesochorus longistylus* nov.sp. ♂, Paramere with long stylets, lateral view.



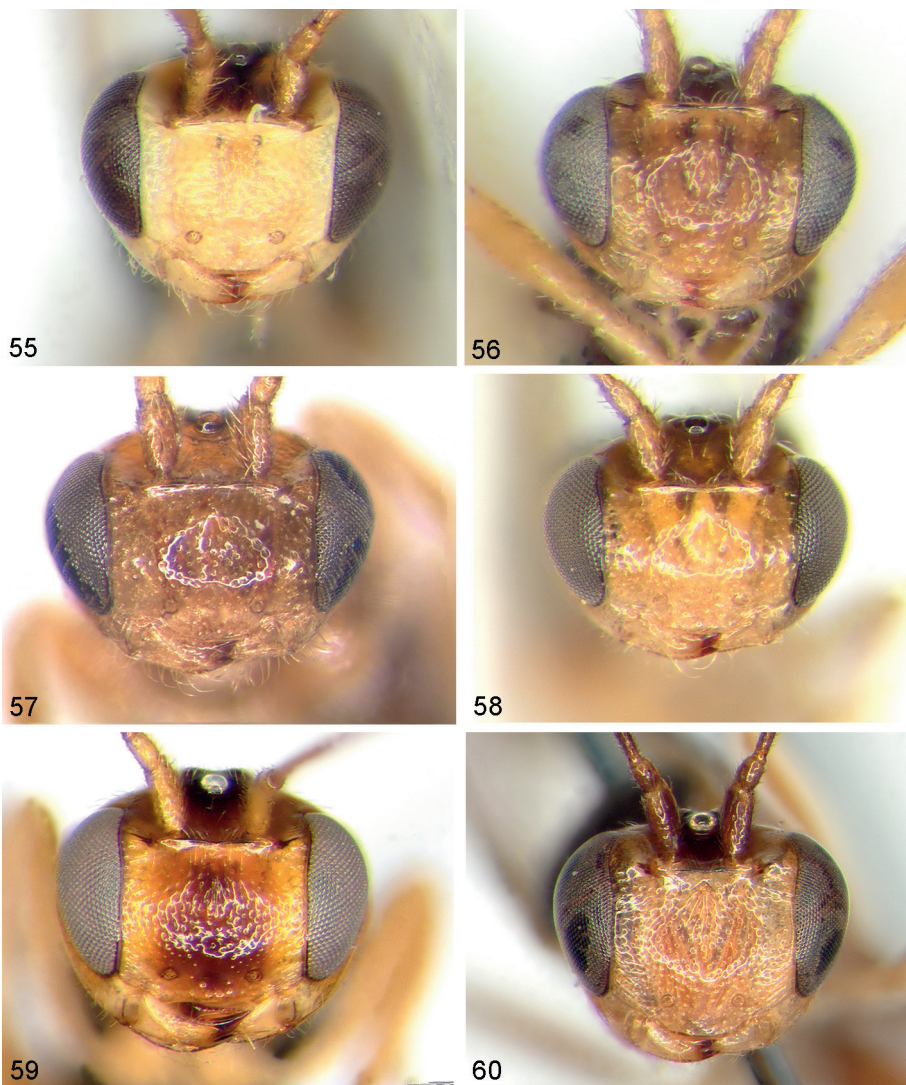
Figs 30-37: Mesopleuron, lateral view: (30) *Mesochorus macrocephalus* STROBL HT ♂; (31) *M. megacephalus* nov.sp. HT ♀; (32) *M. punjabi* nov.sp. HT ♀; (33) *M. nigrifrons* nov.sp. PT ♀; (34) *M. bilineatus* THOMSON ♀; (35) *M. maroccanus* (SCHWENKE) ♀; (36) *M. ranini* VIKBERG ♂; (37) *M. longistylus* HT ♂.



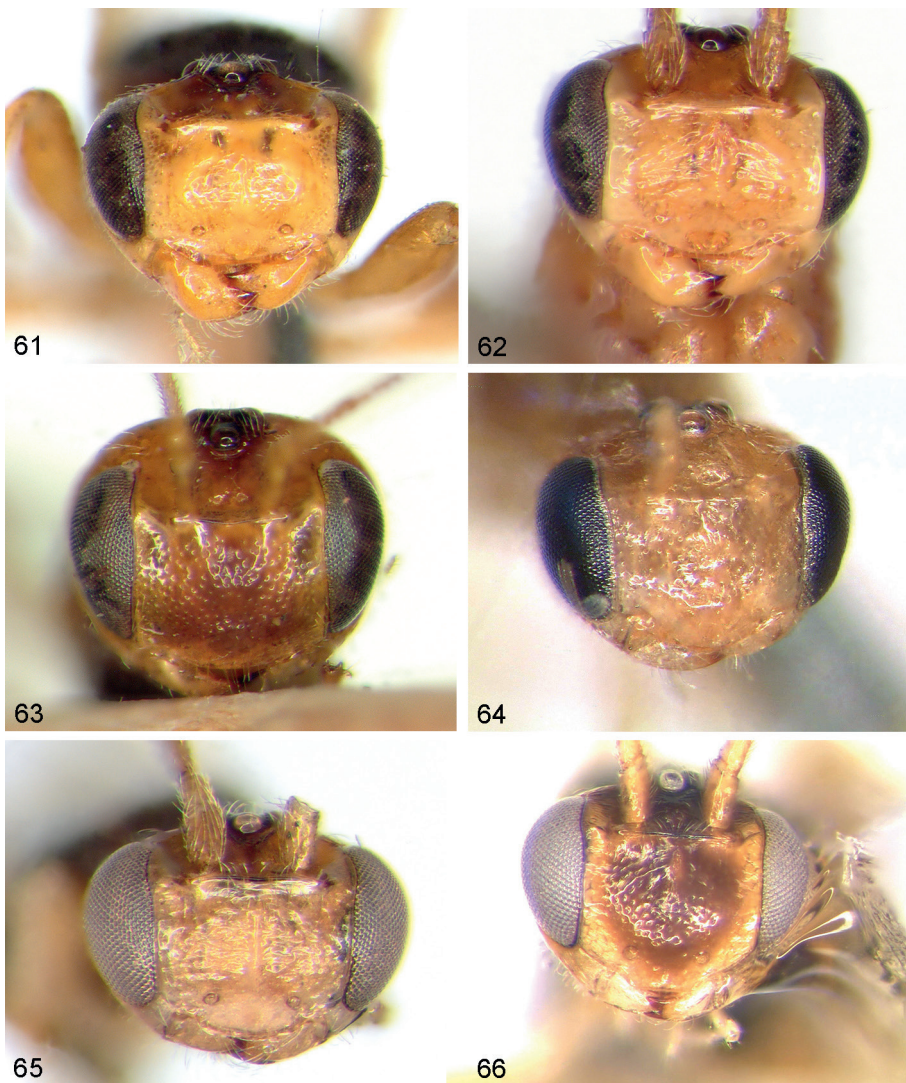
Figs 38–47: Ovipositor sheath of ♀♀, lateral view: (38) *Mesochorus bilineatus* THOMSON; (39) *M. cuspidatus* (SCHWENKE); (40) *M. dilutoides* RIEDEL (HT of *S. dilutus*); (41) *M. flavescens* FONSCOLOMBE; (42) *M. formosus* BRIDGMAN; (43) *M. macrocephalus* STROBL; (44) *M. mandibulator* nov.sp. HT; (45) *M. maroccanus* (SCHWENKE); (46) *M. megacephalus* nov.sp. HT; (47) *M. nemoralis* (SCHWENKE).



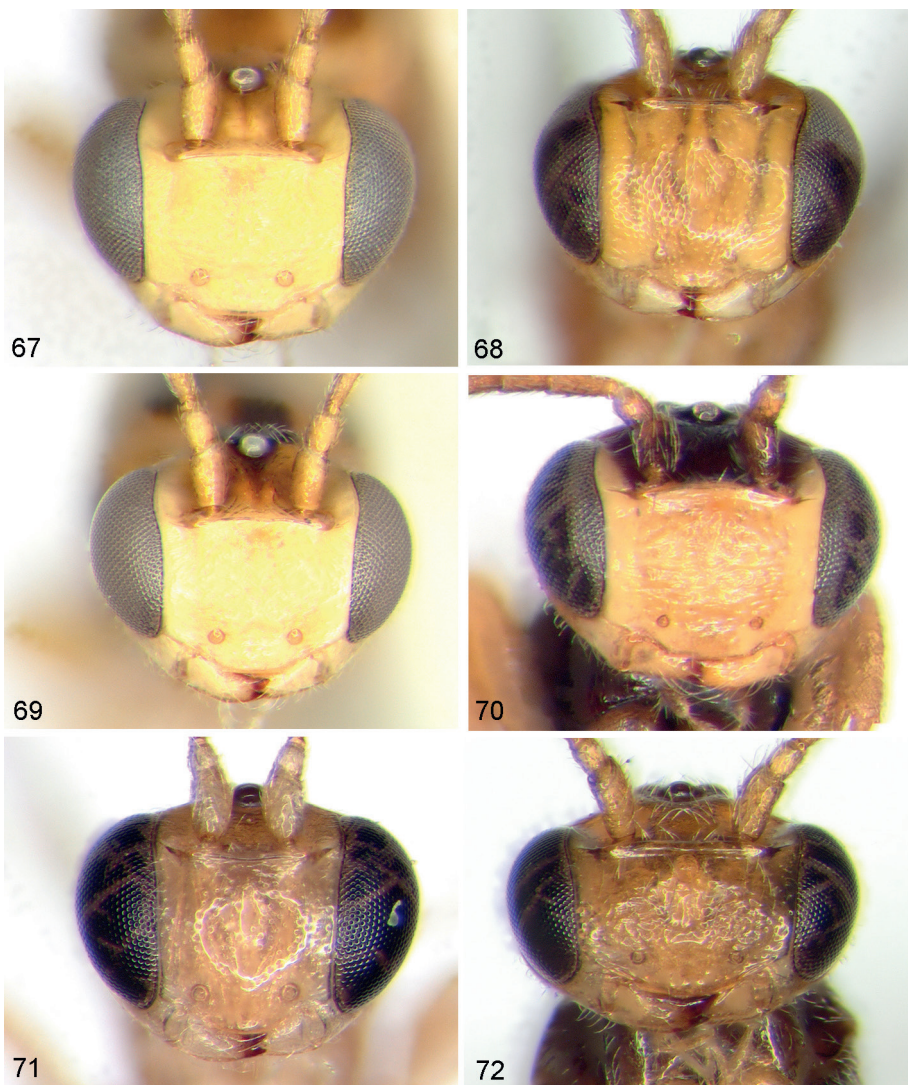
Figs 48-52: Ovipositor sheath of ♀♀, lateral view: (48) *Mesochorus nigrifrons* nov.sp. PT; (49) *M. persicus* RIEDEL et al.; (50) *Mesochorus punjabi* nov.sp. HT; (51) *M. ranini* VIKBERG HT; (52) *M. uncinctor* (THUNBERG). **Figs 53-54:** Mesoscutum, scuto-scutellar groove and scutellum, dorsal view: (53) *Mesochorus flavescens* FONSCOLOMBE ♀; (54) *M. tenuigaster* (SCHWENKE) ♂.



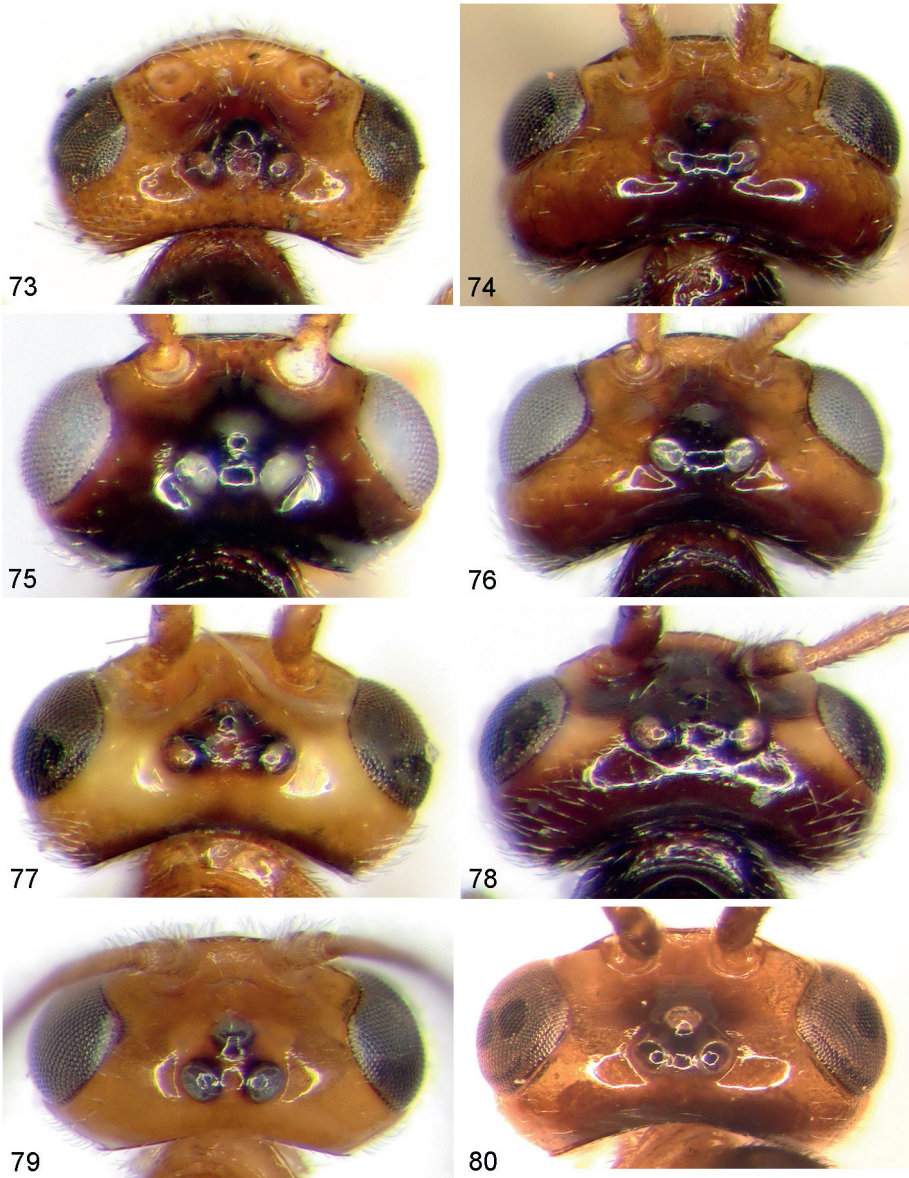
Figs 55-60: Head, frontal view: (55) *Mesochorus bilineatus* THOMSON ♀; (56) *M. cuspidatus* (SCHWENKE) ♀; (57) *M. dilutoides* RIEDEL ♀; (58) *M. flavescens* FONSCOLOMBE ♀; (59) *M. formosus* BRIDGMAN ♀; (60) *M. longistylus* nov.sp.



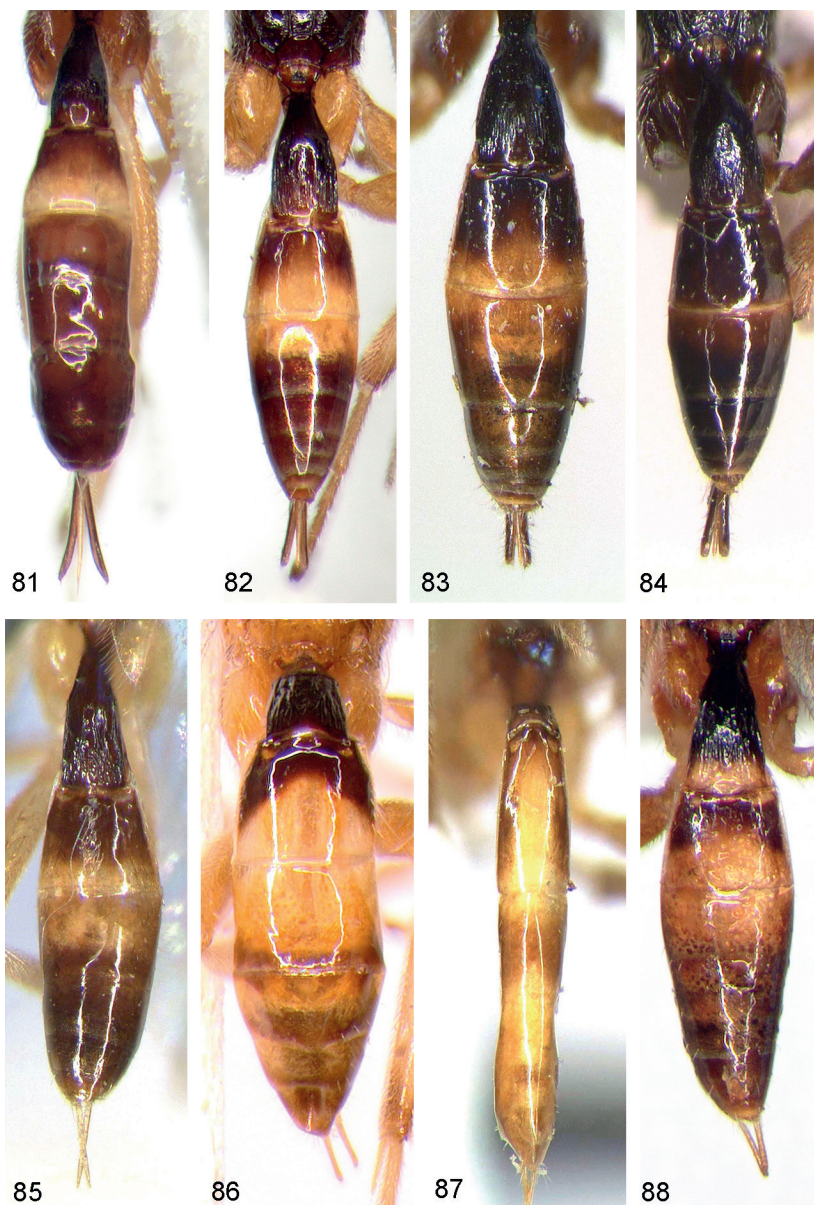
Figs 61-66: Head, frontal view: (61) *Mesochorus macrocephalus* STROBL ♀; (62) *M. mandibulator* nov.sp. ♀ HT; (63) *M. megacephalus* nov.sp. ♀ HT; (64) *M. moravicus* (SCHWENKE) ♂ HT; (65) *M. nemoralis* (SCHWENKE) ♀; (66) *M. nigrifrons* nov.sp. ♀ PT.



Figs 67-72: Head, frontal view: (67) *Mesochorus persicus* RIEDEL et al. ♀; (68) *M. punjabi* nov.sp. ♀ HT; (69) *M. maroccanus* (SCHWENKE) ♀; (70) *M. ranini* VIKBERG ♀ HT; (71) *M. tenuigaster* (SCHWENKE) ♂; (72) *M. unicolor* (THUNBERG) ♀.



Figs 73-80: Head, dorsal view: (73) *Mesochorus macrocephalus* STROBL ♀; (74) *M. megacephalus* nov.sp. ♀ HT; (75) *M. nigrifrons* nov.sp. ♀ PT; (76) *M. formosus* BRIDGMAN; (77) *M. maroccanus* (SCHWENKE); (78) *M. ranini* VIKBERG ♀ HT; (79) *M. punjabi* nov.sp. ♀ HT; (80) *M. longistylus* nov.sp. ♂ HT.



Figs 81-84: Metasoma of ♀♀, dorsal view: (81) *Mesochorus cuspidatus* (SCHWENKE); (82) *M. flavescens* FONSCOLOMBE; (83) *M. macrocephalus* STROBL; (84) *M. ranini* VIKBERG HT.
Figs 85-88: Metasoma of ♂♂, dorsal view: (85) *Mesochorus uncinctor* (THUNBERG); (86) *M. nemoralis* (SCHWENKE); (87) *M. tenuigaster* (SCHWENKE); (88) *M. maroccanus* (SCHWENKE).

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