

Contribution to the taxonomy of the West Palaearctic Ichneumoninae (Hymenoptera: Ichneumonidae)

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Abstract

In this taxonomical study of some Ichneumoninae from the West Palaearctic region, four taxa are described as new: *Homotherus coxistriatus* **n. sp.** from Germany, *Platylabus rufoniger* **n. sp.** from France, *Rictichneumon persicus* **n. sp.** from Iran and *Rubicundiella walli* **n. sp.** from Germany.

For three species, the hitherto unknown ♂♂ are described: *Baranisobas ridibitor* (AUBERT, 1994), *Platylabops virginalis* (WESMAEL, 1845) and *Coelichneumon nigrifrons* RIEDEL, 2017.

New combinations are: *Virgichneumon submontanus* (HEINRICH, 1951) **n. comb.**, *Baranisobas ridibitor* (AUBERT, 1994) **n. comb.**, and *Melanichneumon horstmanni* (SELFA & ANENTO, 1996) **n. comb.**

Baranisobas sinetuber TERESHKIN, 2002 is a **new synonym** of *Baranisobas ridibitor* (AUBERT, 1994), and *Barichneumon tegelensis* HEINRICH, 1951 is a **new synonym** of *Barichneumon chionomus* (WESMAEL, 1845).

Introduction

The subfamily Ichneumoninae is a species-rich group of Ichneumonidae (Hymenoptera) which are exclusively larval or pupal parasitoids of Lepidoptera (BROAD et al. 2018). In the Western Palaearctic region, more than 1200 different taxa of Ichneumoninae are known so far (YU et al. 2016). Although our knowledge of the taxonomy, biology and distribution of European Ichneumoninae is better than for other regions, some genera of Ichneumoninae such as *Barichneumon* THOMSON and *Cratichneumon* THOMSON still need further studies and modern revisions.

Over the last years, I had the opportunity to study the large Ichneumonidae collection of the Zoologische Staatssammlung in Munich/Germany (ZSM) containing many types of Ichneumonine species and received additional material that was sent by several collectors and curators from other European countries. Here, I present some new findings concerning the taxonomy of Western Palaearctic Ichneumoninae.

Material and methods

For the descriptions below, morphological terms follow BROAD et al. (2018). For the measurements the following relations were used: Length of 1st flagellomere was measured in lateral view (length without anellus); width of gena and eye were measured from lateral view, and length and width of hind femur in lateral view. For the punctuation of body parts the following definitions were used: very scattered – distance of punctures >2x their diameter; scattered – distance 1-2x their diameter; rather dense – distance about as their diameter; dense – diameter of punctures larger than their distance.

For the measurements an Olympus SZX 7 stereo microscope with dividing eyepiece was used. The figures were taken with an Olympus SC 30 CCD-camera using the AnalySIS getIT and Helicon Focus Pro softwares and processed with the Microsoft Office Picture manager.

New species

Homotherus coxistriatus **n. sp.** (figs 1-5)

Holotype: (♀) D/BB/Buchhain b.Herzberg/FP2 2017 K-D4 BPE 3 KD/leg. Jkl (ZSM). Paratypes: (♂) with similar label; (♀) D/BB/Liebrose/25 km N Cottbus/FP 3 2017/K-D4 LEK 1 FF/leg. Jkl (coll. SCHNEE).

Description: ♀: Body length 7 mm. Flagellum with 23-25 flagellomeres, filiform; 1st flagellomere 1.6x longer than wide; 3rd flagellomere about square; following flagellomeres slightly wider than long, preapical flagellomere 1.1x wider than long. Head covered with fine grey hairs. Temple roundly narrowed behind eye. Distance of lateral ocellus to eye 1.25-1.3x and distance between lateral ocelli 1.3-1.6x ocellar diameter.

Frons punctate, shining. Face densely punctate, finely granulate and moderately bulging centrally. Clypeus almost flat, 2.5–2.7x wider than long, with scattered punctures, shining; apical margin sharp and slightly convex. Mandible rather narrow; lower tooth smaller than upper one, not curved inwards. Gena with rather dense punctures, laterally 0.8x as wide as eye. Malar space as long as width of mandibular base. Genal carina complete, reaching hypostomal carina away from mandibular base; hypostomal carina slightly widened.

Mesosoma covered with grey hairs. Pronotum with epomia, side with punctures dorsally and fine striation ventrally, collare without median keel. Notaulus impressed in frontal 0.2 of mesoscutum. Mesoscutum with dense punctures, smooth and shining between punctures. Epicnemial carina not elevated behind fore coxae. Sternaulus impressed in frontal 1/3 of mesopleuron. Mesopleuron densely punctate and distinctly striate ventrally; speculum punctate. Metapleuron striate-punctate. Juxtacoxal carina present. Scutellum almost flat, 1.2–1.3x wider than long, without lateral carina, with scattered punctures. Propodeum with complete carination, without apophyses; spiracle slit-shaped. Area basalis without median tubercle, lateral carina weak. Area superomedia heart-shaped, 1.1–1.2x wider than long; costula reaching its middle. Area petiolaris strongly impressed, with fine transverse rugae. Hind coxa punctate, with fine oblique striation dorsally and ventrally, without scopa. Hind femur stout, 2.5x longer than wide, with dense punctures. Hind tibia fusiform, without external denticular spurs. Claws not pectinate. Areolet pentagonal; frontal distance of intercubiti 4x their width, 2nd recurrent vein reaching its middle. Nervulus postfurcal by 1–2x its width. Nervellus of hind wing slightly reclivous, intercepted in apical third.

Metasoma oxypygous. Petiolus as wide as high, not flattened. Postpetiolus without dorsal carina; median field smooth and shining (in holotype) or with some very fine rugae (in paratype), lateral field finely punctate. Gastrocoelus weakly impressed, with fine longitudinal rugae. Thyridium transverse and comma-shaped, 1.0–1.2x wider than the interval. 2nd tergite 1.0–1.1x wider than long. 2nd tergite with denser punctures in basal half and scattered punctation in apical half; smooth and shining between punctures. Following tergites with fine scattered setiferous punctures, smooth and shining. 2nd to 4th sternites with median folds. Ovipositor sheath slightly extending behind metasomal apex.

Color: Black. Palps, stripes on flagellomeres 7–10 and all trochanters and trochantelli ivory. Mandible except black teeth, clypeus, facial orbit, central spot on face, ventral spot on scape and tegula reddish-yellow. Scutellum with dark reddish shine apically. 1st tergite blackish, following tergites brownish, with ochreous hind margins; 2nd to 5th sternites cream-yellow medially, with brownish sides; hypopygium brownish. Fore and mid coxae frontally and hind coxa apically reddish. Fore and mid femora, tibiae and tarsi reddish-yellow, femora with brown stripes dorsally. Hind femur black, with narrow yellowish base. Hind tibia black, with wide yellowish subbasal ring. Hind tarsomeres blackish, narrowly ochreous basally. Wings hyaline. Pterostigma brown.

♂: Body length 7.5 mm. Flagellum with 29 flagellomeres; 1st flagellomere 2.3x longer than wide; all flagellomeres longer than wide. Tyloids on flagellomeres 5–13, linear, maximally 0.8x as long as their flagellomeres. Temple roundly narrowed behind eye. Distance of lateral ocellus to eye 1.0x and distance between lateral ocelli 1.1x ocellar diameter. Clypeus almost flat, 2.2x wider than long; apical margin sharp and slightly convex. Mandible rather narrow; lower tooth smaller than upper one, not curved inwards. Gena laterally 0.8x as wide as eye. Malar space 0.4x as long as width of mandibular base. Genal carina complete, reaching hypostomal carina close to mandibular base; hypostomal carina low.

Mesosoma covered with grey hairs. Mesopleuron densely punctate and partly striate below speculum; speculum punctate. Scutellum almost flat, slightly wider than long, without lateral carina, with scattered punctures. Propodeum with complete carination, without apophyses; spiracle slit-shaped. Area superomedia transverse, c.2x wider than long; costula reaching its middle. Area petiolaris strongly impressed, widely smooth centrally. Hind coxa punctate, with fine oblique striation dorsally and internally, ventral side without striae. Hind femur stout, 2.7x longer than wide, with dense punctures.

Postpetiolus without dorsal carina; median and lateral fields smooth and shining, with some very scattered fine setiferous punctures. Gastrocoelus weakly impressed, with longitudinal rugae. Thyridium transverse, comma-shaped, about as wide as the interval. 2nd tergite 1.15x longer than wide, with dense punctures, intervals smooth and shining, but densely rugose-punctate between thyridia. Following tergites with superficial punctures, ± shining. Structure otherwise as described for the ♀.

Color: Black. Flagellum dark brown, distal flagellomeres dark ochreous ventrally. Palps, mandible except teeth, labrum, clypeus, face, ventral half of frontal orbit, gena, ventral spot on scape, ventral and hind edges of pronotum, tegula, stripe on subtegular ridge, two posterolateral spots on scutellum, fore and mid coxae entirely and hind coxa apically, all trochanters and trochantelli, spurs of hind tibia, fore and mid tarsi and subbasal rings of all tibiae ivory. Fore and mid femora and tibiae reddish. Hind femur black, narrowly

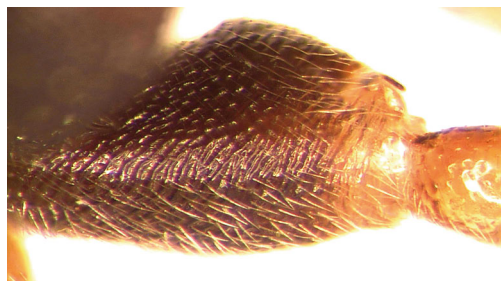


Fig. 1: Face of *Homotherus coxistriatus* n. sp. ♀. from frontal.
Fig. 2: Head of *Homotherus coxistriatus* n. sp. ♀ from dorsal.
Fig. 3: Propodeum of of *Homotherus coxistriatus* n. sp. ♀ from dorsal.
Fig. 4: Basal tergites of of *Homotherus coxistriatus* n. sp. ♀ from dorsal.
Fig. 5: Hind coxa of *Homotherus coxistriatus* n. sp. ♀ from ventral.
Fig. 6: Hind coxa from *Homotherus varipes* (GRAVENHORST) ♀ from ventral.

yellow basally. Hind tibia except wide subbasal ivory ring blackish. Tergites black. 2nd to 4th sternites ivory medially, brownish laterally. Wings hyaline; pterostigma brown.

Taxonomical remark: Although the thyridia are shorter than in the other known European species of *Homotherus* FÖRSTER and only as wide as their interval, this taxon is included in the genus *Homotherus* due to its typical habitus with a filiform stout flagellum, very stout hind femur, smooth and shining intervals between punctures on mesoscutum and basal tergites, strongly impressed area petiolaris and the oblique striation of hind coxa in both sexes.

The new taxon is similar to *Homotherus varipes* (GRAVENHORST), but differs by its shorter thyridium (1.0-1.2x as wide as interval in *H. coxistriatus* and 1.5-2.0x wider than the interval in *H. varipes*). In ♀, basal flagellomeres are slightly stouter (3rd instead of 4th or 5th flagellomeres square) and hind coxa has much more ridges (c.20 fine ridges in *H. coxistriatus* (fig. 5), 8-10 coarse ridges in *H. varipes* (fig. 6). The ♂ of *H. coxistriatus* also differs from *H. varipes* by mainly black hind femur and brown flagellum (ventrally yellowish in *H. varipes*).

***Platylabus rufoniger* n. sp. (figs 7-9)**

Holotype: (♀) France: Aude, Pouzols-Minervois, 26/31.5.2012 ex *Quercus* (*ilex* etc.) em. 4.2014, *Epihthecia dodoneata*, MR SHAW; many hosts + this parasitoid overwintered twice (Edinburgh).

Description: ♀: Body length 6 mm. Flagellum with 27 flagellomeres, slightly lanceolate; 1st flagellomere 4.3x longer than wide; 2nd flagellomere 3.3x longer than wide, combined length 0.83x as long as compound eye; about 14th flagellomere square; widest flagellomeres 1.1x wider than long. Temple moderately and roundly narrowed behind eye. Distance of lateral ocellus to eye 0.9x ocellar diameter. Frons punctate, smooth; vertex with fine granulation. Face and clypeus punctate, shining. Clypeus moderately convex, with scattered punctures in apical half. Mandible narrowed to apex, moderately bent inwards, with two teeth; lower tooth much smaller than upper one. Genal carina reaching hypostomal carina far from mandibular base; hypostomal carina moderately elevated (about as wide as the distal maxillary palpomere).



Fig. 7: *Platylabus rufoniger* n. sp. ♀ habitus from dorsal.

Fig. 8: Propodeum of *Platylabus rufoniger* n. sp. ♀ from dorsal.

Fig. 9: Head of *Platylabus rufoniger* n. sp. ♀ from dorsal.

Notaulus slightly impressed in frontal fifth of mesoscutum. Mesoscutum, mesopleuron including speculum, and metapleuron punctate, smooth and shining between punctures. Juxtacoxal carina absent. Scutellum slightly wider than long, moderately convex, with scattered punctures, without lateral carina. Propodeum without apophyses; spiracles short-oval (c.2x longer than wide). Areae basalis and superomedia not carinate; area superomedia slightly elevated, wider than long, finely rugose; costula absent; apical transversal carina of propodeum strong. Area petiolaris with transverse rugae. Hind coxa punctate, without scopa. Hind femur punctate, 3.8x longer than wide. Hind tarsus stout, hind metatarsus 0.43x as long as hind tarsus and 1.15x as long as combined length of 2nd to 4th hind tarsomeres. Claws not pectinate. Areolet almost quadrangular, frontal distance of intercubiti c.1x their diameter; nervulus slightly postfurcal. Nervellus of hind wing interstitial, intercepted in apical 0.8.

Metasoma amblypygous. Petiolus flattened, wider than high. Postpetiolus moderately widened, 0.75x as wide as distance of outer dentiparal edges, without dorsal carina; median field slightly elevated, slightly rugose and with some scattered punctures. 2nd tergite 0.9x as long as wide. Gastrocoelus slightly impressed, with some irregular rugae. Thyridium weakly impressed, transverse, about as wide as the interval. 2nd and 3rd tergites granulate and superficially punctate, matt. 4th and 5th tergites finely granulate, \pm shining.

Color: Black. Stripes on flagellomeres 8-12, very narrow frontal orbit, short stripe on outer orbit, upper margin of pronotum, tegula, subtegular ridge and scutellum ivory. Frontal margin of pronotum, diffuse central marks on mesoscutum and mesopleuron, postscutellum, propodeum and metapleuron (except apical margins), 1st and 2nd tergites except narrow base of petiolus, and base of 3rd tergite reddish. Legs entirely reddish; hind tibia in apical 0.3 and hind tarsi entirely brown. Pterostigma dark brownish.

♂ unknown.

Taxonomical remark: This new species resembles *Platylabus rufator* RIEDEL, 2012, but differs by the following features: hind tarsus longer, scutellum without lateral carinae, head and flagellum without reddish color pattern, reddish coloration of mesosoma and metasoma less extended.

***Rictichneumon persicus* n. sp. (figs 10-13)**

Holotype: (♀) SW Iran, Lorestan prov., Khorramabad area, Mahmudvand v., 30.04.07, A. Klimenko leg. (ZSM).

Paratype: (♂) with similar label (ZSM).

Description: ♀: Body length 7.5 mm. Antenna with 30 flagellomeres, short and filiform; 1st flagellomere 1.1x longer than wide; 2nd flagellomere square, following flagellomeres wider than long; apical flagellomere blunt. Temple moderately widened behind eye and slightly narrowed apically. Ocelli small, distance of lateral ocellus to eye 1.9x ocellar diameter. Vertex and frons with scattered punctures, shining. Face wide and short, moderately bulging, with scattered punctures. Clypeus large, flat, c.3.4x wider than long, with scattered punctures and strongly shining; apical margin straight and sharp. Labrum exposed, with apical row of long hairs. Mandible large; teeth blunt, lower tooth smaller than upper one. Gena with very scattered setiferous punctures. Malar space 0.4x as long as width of mandibular base. Genal carina reaching hypostomal carina close to mandibular base; both carinae low.

Mesosoma covered with pale brownish hairs. Pronotum with strong epomia, upper margin slightly bulging and finely punctate; pronotal groove with coarse rugae, collare without median keel. Notaulus shortly impressed on frontal border of mesoscutum. Mesoscutum strongly shining, with scattered and rather coarse setiferous punctures. Epicnemial carina low. Mesopleuron shining, with scattered punctures and coarse rugae at caudal margin. Metapleuron with coarse punctures. Juxtacoxal carina present. Scutellum almost flat, slightly wider than long, without lateral carina, with few fine punctures. Propodeum completely carinate; spiracle long-oval. Area basalis without median tubercle. Area superomedia hexagonal, 1.2x wider than long; costula slightly caudal to the middle. Area petiolaris strongly impressed, rugose, with lateral carina. Hind coxa almost smooth and with very scattered punctures ventrally, without scopa. Hind femur very stout, 2.5x longer than wide, with scattered punctures. Hind tibia without external denticular spurs. Claws not pectinate.

Arolet pentagonal, frontal distance of intercubiti c.2x their width. 2nd recurrent vein in its middle. Nervulus postfurcal by 1x its width.

Metasoma strongly oxypygous. Petiolus as wide as high, not flattened. Postpetiolus moderately widened; median field not separated from lateral one, with scattered punctures. Gastrocoelus weakly impressed. Thyridium not visible. 2nd tergite c.1.55x wider than long. 2nd and 3rd tergites with rather dense punctures, less densely punctate in their apico-median third. Ovipositor sheath distinctly extending behind metasomal apex (by length of 3rd hind tarsomere).

Color: Black. Mandible, apical half of clypeus and weak stripe on frontal orbit reddish. Metasoma except black 1st segment red. Coxae and trochanters black; fore and mid femora, tibiae and tarsi reddish; hind femur and tarsus black; hind tibia black, with subbasal reddish ring. Wings hyaline; pterostigma brown.

♂: Body length 9.2 mm. Antenna with 35 flagellomeres, filiform. 1st flagellomere 2.1x longer than wide. Tyloids indistinct, on flagellomeres 7-12, long-oval. Temple parallel behind eye, slightly narrowed apically. Distance of lateral ocellus to eye 1.4x ocellar diameter. Frons with scattered punctures, finely granulate. Face densely punctate. Clypeus flat, 3.1x wider than long; apical margin slightly bulging medially. Malar space 0.2x as long as width of mandibular base. Mesopleuron punctate, partly striate. Scutellum moderately elevated, slightly longer than wide, with lateral carina in basal third. Area superomedia halfmoon-shaped, c.1.8x wider than long. Hind coxa densely punctate, punctuation partly scattered apico-ventrally. Hind femur 3.5x longer than wide, with scattered punctures in ventral third. Postpetiolus slightly widened, without dorsal carina; median field slightly elevated, with scattered punctures. 2nd tergite 1.1x wider than long; 2nd and 3rd tergites densely punctate. Apical margin of hypopygium straight. Structure otherwise as described for the ♀.

Color: Black. Mandible centrally and labrum reddish. Stripe on frontal orbit yellow-red. Coloration otherwise as described for the ♀.

Taxonomical remark: This new species is characterized by distinctly widened temples in ♀, entirely red 2nd to 7th tergites without ivory spots of the apical tergites, black scutellum, and partly scattered punctures on mesopleuron. In the key of European *Rictichneumon* HEINRICH (RASNITSYN & SIYTAN 1981) the ♀ runs to *R. boghariensis* (PIC, 1902) but differs by entirely red apical tergites and reddish-brown instead of black pterostigma.

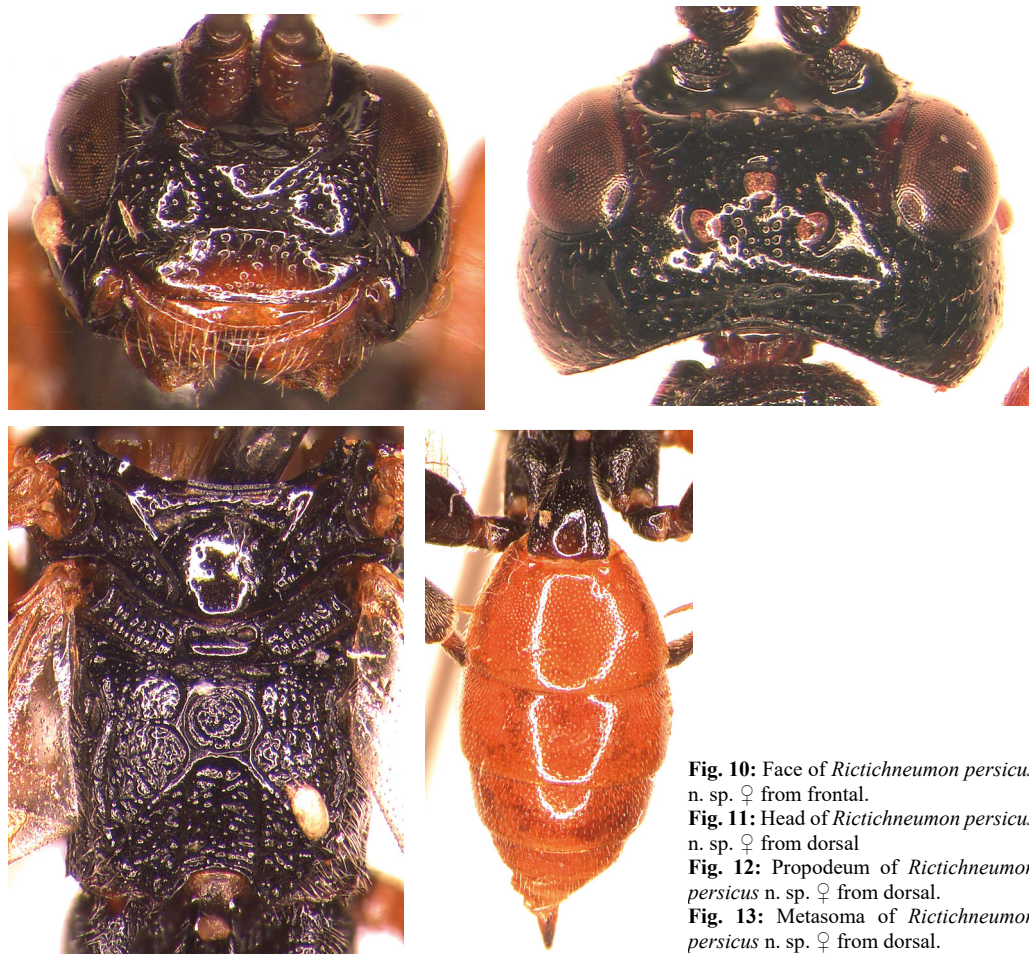


Fig. 10: Face of *Rictichneumon persicus* n. sp. ♀ from frontal.

Fig. 11: Head of *Rictichneumon persicus* n. sp. ♀ from dorsal

Fig. 12: Propodeum of *Rictichneumon persicus* n. sp. ♀ from dorsal.

Fig. 13: Metasoma of *Rictichneumon persicus* n. sp. ♀ from dorsal.

***Rubicundiella walli* n. sp. (figs 14-18)**

Holotype: (♀) Oberschwaben, Oberschwandorf (Riederntal-Dinkeltal), leg. I. Wall, 20.8.1987 (ZSM).

Etymology: This new species is dedicated to Ingmar WALL (Mühlingen/Germany) who collected the holotype together with many other rare and interesting Ichneumonidae in Southwest Germany.

Description: ♀: Body length 6.5 mm. Antenna with 29 flagellomeres, filiform; 1st flagellomere 2.7x longer than wide; 2nd flagellomere 2.3x longer than wide; about 8th flagellomere square; widest flagellomeres 1.1x wider than long, apical flagellomere blunt. Temple strongly and almost linearly narrowed behind eye. Distance of lateral ocellus to eye 1.0x and distance between lateral ocelli 1.0x ocellar diameter. Frons densely punctate. Face densely punctate, partly rugose medially, with fine granulation, ± matt. Clypeus flat, with large clypeal fovea and scattered punctures, strongly shining; apical margin slightly concave.

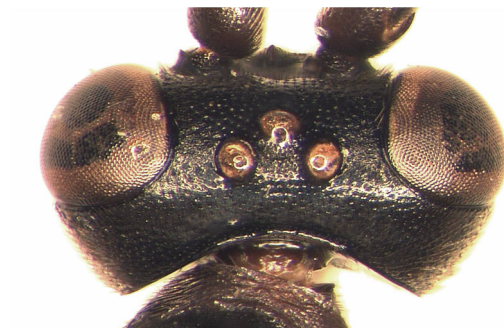


Fig. 14: *Rubicundiella walli* n. sp. ♀, habitus from dorsal. **Fig. 15:** Propodeum of *Rubicundiella walli* n. sp. ♀ from dorsal. **Fig. 16:** Head of *Rubicundiella walli* n. sp. ♀ from dorsal. **Fig. 17:** Face of *Rubicundiella walli* n. sp. ♀ from frontal. **Fig. 18:** 2nd to 5th mid tarsomeres of *Rubicundiella walli* n. sp. ♀ from lateral.

Mandible rather narrow; lower tooth small, 0.25x as long as upper one, not curved inwards. Gena with scattered punctures, seen from lateral c.1.2x wider than eye. Malar space 0.75x as long as width of mandibular base. Genal carina complete, reaching hypostomal carina far from mandibular base; both carinae low.

Mesosoma covered with pale brownish hairs. Pronotum with epomia, side with fine punctures dorsally and striae ventrally, collare without median keel. Notaulus not impressed. Mesoscutum with fine dense and rather superficial punctures. Epinemial carina not bent or elevated behind fore coxae, reaching frontal margin of mesopleuron. Sternaulus impressed in frontal 1/4 of mesopleuron. Mesopleuron and metapleuron densely striate-punctate, speculum with fine punctures. Juxtacoxal carina present. Scutellum almost flat, about as wide as long, without lateral carina, with scattered punctures. Propodeum completely carinate, spiracle slit-shaped. Area basalis with strong median tubercle. Area superomedia hexagonal, 1.2x longer than wide, almost smooth; costula in frontal 1/3. Area externa with coarse punctures. Posterolateral edge of area dentipara with blunt tooth-like apophysis. Area petiolaris transversely rugose, lateral border indicated by some irregular rugae. Hind coxa rather slender, 1.75x longer than wide, with dense punctures and fine but distinct scopa in apico-ventral third. Hind femur densely punctate, 3.8x longer than wide. Hind tibia without external denticular spurs. Distal tarsomeres elongate, as long as 2nd tarsomeres and c.2x longer than 4th tarsomeres. Claws not pectinate. Areolet pentagonal, oblique; frontal distance of intercubiti c.2x their width, 2nd recurrent vein strongly distal to the middle; nervulus interstitial.

Metasoma strongly oxypygous. Petiolus as wide as high, not flattened. Postpetiolus with strong dorsal carina; median field slightly elevated, smooth and strongly shining, lateral field punctate. Gastrocoelus triangular, with fine ridges; thyridium oblique, c.0.45x as wide as the interval. 2nd tergite c.1.45x wider than long. 2nd and 3rd tergites densely punctate, shining, ± rugose medially. 4th tergite with fine scattered punctures. 2nd to 5th sternites with median folds. Ovipositor sheath not extending behind metasomal apex.

Color: Black. Mesosoma with some reddish-brown tint ventrally. Metasoma reddish-brown. Stripes on flagellomeres 8-12, entire scutellum, large apical band on 6th tergite and entire 7th tergite (if seen from dorsal) ivory. Coxae and trochanters dark reddish-brown; legs otherwise reddish; hind femur with diffuse apical infuscation; hind tibia in apical 0.2 and all tarsi brownish-black. Wings hyaline, pterostigma brownish.

♂ unknown.

Taxonomical remark: The genetic position of this species is questionable. Due to the median tubercle on area basalis, it belongs to the *Barichneumon*-group of the tribe Ichneumonini, but differs from other European genera by the form of clypeus and propodeum, the elongate distal tarsomeres and the smooth median field of postpetiolus. The small denticular apophysis, structure of area superomedia and color pattern is rather characteristic for the genus *Rubicundiella* HEINRICH, and therefore this new taxon is provisionally included in this genus here.

The only other known European species which have been included in *Rubicundiella*, *R. externa* (BERTHOUMIEU, 1895), differs by the lack of median tubercle of area basalis, smaller distal tarsomeres, coarse and almost reticulate rugose-punctuation of mesopleuron and metapleuron, distinctly punctate postpetiolus, black coxae and trochanters and an ivory spot on frontal orbit opposite of lateral ocellus. For a definite generic classification of these species a comprehensive revision of the *Barichneumon* species-group will be necessary in the future.

New males of known species

Platylabops virginalis (WESMAEL, 1845)

Material: (♂♂) Sweden, Sm, Gnosjö kommun, N 57°17.234' E 13°55.148', 19.v.-4.vi.2004, Trap ID 41, coll. Event ID 643, Swedish Malaise trap project (Stockholm and coll. RIEDEL)

Description of ♂: Body length 6-7 mm. Antenna with 30 flagellomeres, filiform. 1st flagellomere 2.0x longer than wide. Tyloids on flagellomeres 6/7-14/15, long-oval centrally situated, maximally 0.5x as long as their flagellomere. Temple moderately and roundly narrowed behind eye. Ocelli large, distance of lateral ocellus to eye 0.8-1.0x ocellar diameter. Frons smooth ventrally and with superficial punctures and fine granulation dorsally. Face densely punctate and granulate. Clypeus slightly convex, punctate, smooth between punctures. Lower mandibular tooth small and distinctly bent inwards. Malar space 0.25-0.3x as long as width of mandibular base. Genal carina reaching hypostomal one close to mandibular base, both carinae low. Mesoscutum punctate and ± granulate, matt. Mesopleuron and metapleuron densely punctate, smooth and shining between punctures. Speculum smooth. Juxtacoxal carina indistinct or absent. Scutellum moderately elevated, slightly wider than long, without lateral carina. Area superomedia halfmoon-shaped, slightly wider than long, finely rugose. Costula absent. Area petiolaris ± impressed, with transverse, sometimes

smoothened rugae. Hind coxa densely punctate. Hind femur 3.4-3.5x longer than wide, densely punctate. Areolet pentagonal, frontal distance of intercubiti 2x their diameter. 2nd recurrent vein in its middle. Nervulus postfurcal by 2x its width. Postpetiolus moderately widened, without dorsal carina; median field with scattered superficial punctures, granulate and matt. Gastrocoelus not impressed. Thyridium large, oblique, c.2x as wide as their interval. 2nd tergite 1.2x longer than wide. Tergites with superficial punctures and distinct granulation, ± matt.

Color: Black. Palps, mandible except teeth, clypeus, face, gena, stripe on frontal orbit and large roundish spot on vertex, collare and upper margin of pronotum, tegula, spot on subtegular ridge, apical third of scutellum, fore and mid coxae and dorsal spot (sometimes weak or absent) on hind coxa ivory. Legs otherwise reddish; apex of hind tibia narrowly and entire hind tarsus blackish. 2nd and 3rd tergites in basal half diffusely reddish, all tergites sometimes with reddish apical margins. Wings hyaline; pterostigma brown.

Remark: The new ♂ resembles the ♀ in structure and color pattern and runs to it in the key of European *Platylabops* species (RASNITSYN & SIYTAN 1981), but the characterical ivory dorsal spot on hind coxa might be weak in some ♂♂.

***Baranisobas ridibitor* (AUBERT, 1994)**

Material: (♂) ? *ridibitor* det. Aubert, Vintschgau, Süd-Tirol, Anfang 8.1971 (ZSM).

Description of ♂: Body length 6 mm. Flagellum with 28 flagellomeres; 1st flagellomere c.2.7x longer than wide. Tyloids on flagellomeres 5-17, long-oval, distal and 0.5x as long as their flagellomeres. Temple strongly and roundly narrowed behind eye, dorsally c.0.5x as long as eye. Distance of lateral ocellus to eye 1.1x and distance between lateral ocelli 1.5x ocellar diameter. Frons coarsely punctate and with fine granulation. Face coarsely rugose-punctate. Clypeus with rather dense punctures. Mandible almost sickle-shaped, lower tooth very small. Malar space 0.4-0.5x as long as width of mandibular base. Collare with median ridge. Scutellum moderately elevated, wider than long, with lateral carina in basal 0.7. Area superomedia halfmoon-shaped, c.2x wider than long. Fore metatarsus without apical tooth. Hind femur c.3.7x longer than wide. Postpetiolus without dorsal carina; median field smooth, with few apical punctures, lateral field densely punctate. Gastrocoelus rectangular. Thyridium large, transverse, c.1.6x wider than the interval. 2nd tergite c.1.15x wider than long. 2nd to 4th tergites with coarse and dense punctures; 5th tergite with superficial punctures.

Color: Black. Flagellum brown, reddish-yellow ventrally. Palps, side of clypeus, wide inner orbit up to lateral ocellus, two facial spots below antennae, stripe on outer orbit, frontal and upper margins of pronotum, spot on tegula, subtegular ridge, apical 2/3 of scutellum, postscutellum, apical band on 6th tergite, 7th tergite mainly and parameres ivory. Petiolus and 6th tergite brown; postpetiolus and 2nd to 5th tergites reddish. Coxae and trochanters black; small spots on fore and mid coxae and apical margins of trochanters ivory; femora, tibiae and tarsi reddish; fore and mid femora apically, dorsal spot on hind coxa, and fore and mid tibiae frontally cream-yellow; hind femur in apical 0.1, hind tibia in apical 0.25 and hind tarsus except red base of metatarsus blackish. Pterostigma ochreous.

Remark: This new ♂ differs from *B. ridibundus* (GRAVENHORST) by: hind femur with dorsal ivory spot and 5th tergite entirely red. For the generic classification see the notes below.

***Coelichneumon nigrifrons* RIEDEL, 2017**

Material: (♂) Iran, Mazandaran, Salar dare (1), 8-25.IV.2016, leg. Hooshyar (ZSM).

Description of ♂: Body length 15 mm. Antenna with 40 flagellomeres; 1st flagellomere 1.7x longer than wide. Tyloids on flagellomeres 7-16, small, oval, at most 0.4x as long as the flagellomeres. Temple moderately and roundly narrowed behind eye. Distance of lateral ocellus to eye 1.2x ocellar diameter. Frons and face densely punctate and granulate, matt. Clypeus punctate, punctures partly scattered, intervals smooth and shining. Gena c. 1.0x as wide as eye, densely punctate. Malar space c.0.25x as long as width of mandibular base.

Mesosoma covered with short brownish hairs. Notaulus impressed in frontal 1/5 of mesoscutum. Mesoscutum densely punctate, shining. Mesopleuron and metapleuron with dense punctures, juxtacoxal carina present. Scutellum moderately elevated, slightly wider than long, densely punctate, with lateral carina in basal 0.5. Area superomedia halfmoon-shaped, slightly wider than long, finely rugose; costula caudal to its middle. Area petiolaris rugose-punctate, with lateral carina. Fore metatarsus with distinct apical tooth. Hind femur 3.9x longer than wide, densely punctate. Areolet almost quadrangular, frontal distance of intercubiti 0.5x their width; 2nd recurrent vein distal to the middle. Nervulus postfurcal by 1x its width.

Lateral field of postpetiolus 0.4x as wide as median field, punctate; median field elevated, with c.8 coarse striae. 2nd tergite 1.05x longer than wide. Gastrocoelus distinctly and triangularly impressed, with coarse ridges. Thyridium oblique, 0.6x as wide as the interval. 2nd to 4th tergites finely and densely punctate and granulate, \pm matt. 2nd tergite with coarse median striation, 3rd and 4th tergites with fine aciculation medially.

Color: Black. Stripes on flagellomeres 12-18, central spot on mandible, side of clypeus, facial orbit, spot on vertex, ventral spot on scape and small spot on hind edge of pronotum ivory. Fore femur and tibia yellowish frontally. Wings slightly infuscate, pterostigma blackish.

Remark: The new ♂ is characterized by the ivory ring of flagellum, narrow lateral field of postpetiolus and almost entirely black metasoma and mesosoma (except ivory hind edge of pronotum). In the key of ♂♂ of Western Palaearctic *Coelichneumon* species (RIEDEL 2012), it runs to *C. sardinicus* RIEDEL, but differs by the flagellar ivory ring.

Type revisions

Baranisobas sinetuber TERESHKIN, 2002

Paratype: (♀) Berezin-Domgeitsch [in Russian], 54°43'N 28°19'E, 03.06.87 (ZSM).

The available paratype in the ZSM differs slightly from the holotype of *B. ridibitor* (AUBERT) by: 1st flagellomere 2.3x longer than wide (2.7x in *B. ridibitor*), 2nd flagellomere 1.8x longer than wide (2.1x in *B. ridibitor*); distance between lateral ocelli 1.8x ocellar diameter (1.5x in *B. ridibitor*); malar space 1.3x longer than width of mandibular base (1.1x in *B. ridibitor*); collare with ivory spot (black in *B. ridibitor*). Some additional material from Italy in my collection shows intermediates of these differences. Otherwise both species are similar and therefore synonymized here.

Valid name: *Baranisobas ridibitor* (AUBERT, 1994), **syn. nov.** *Baranisobas sinetuber* TERESHKIN, 2002.

Barichneumon tegelensis HEINRICH, 1951

Holotype: (♀) Venlo, 4.10.1941 (ZSM), type studied.

Due to its rather long 1st flagellomere (c. 1.8x longer than wide) and rather large thyridium (about as wide as the interval), this taxon was transferred to *Stenobarichneumon* by RASNITSYN & SIYTAN (1981), but these features are also present in *Barichneumon chionomus* (WESMAEL, 1845). Comparing the types, it was evident that these taxa are conspecific, a synonymy that had already been proposed by ZWAKHALS (unpublished notes). This species is still included in the genus *Barichneumon* THOMSON here, but a comprehensive revision of the European species is in preparation.

Valid name: *Barichneumon chionomus* (WESMAEL, 1845), **syn. nov.** *Barichneumon tegelensis* HEINRICH, 1951.

Barichneumon submontanus HEINRICH, 1951

Holotype: (♀) Holotypus; *Barichneumon submontanus* i. l. 1951 Heinr; Oberlaussa, A.s. leg. A. Franz (ZSM)

The form of 2nd tergite and thyridia is typical for the genus *Virgichneumon* HEINRICH, and one specimen of this species (from Bodman/Germany in the ZSM) was already labeled as *Virgichneumon spec.* by HEINRICH some years ago.

Valid name: *Virgichneumon submontanus* (HEINRICH, 1951), **comb. nov.**

Stenobarichneumon ridibitor AUBERT, 1994

Paratype: (♀) [red] type; *Stenobarichneumon ridibitor* Aub. J.F. Aubert det.; Insel Krk, Punat, 50 m, 6-8. Juni 1977, leg. Kühbandner (ZSM), type studied.

The holotype shows a distinct median keel at the collare of the pronotum. This feature was probably overlooked by AUBERT, but is characteristic for the genus *Baranisobas* HEINRICH.

Valid name: *Baranisobas ridibitor* (AUBERT, 1994) **comb. nov.**

Vulgichneumon horstmanni SELFA & ANENTO, 1996

Holotype: (♀) Esp.-Alicante Moraira 90 m, 21-27.x.1989 garrigue, rec. R. Wahis, Mal.trap (ZSM), type studied.

Paratype: (♂) Esp.-Alicante Moraira 90 m, 5-7.x.1989 garrigue, rec. R. Wahis, Mal.trap (ZSM), type studied.

The strongly lanceolate flagellum in ♀, and the ivory color pattern of the ♂ including basal tergites and parameres indicate that this species belongs to the genus *Melanichneumon* THOMSON.

Valid name: *Melanichneumon horstmanni* (SELFA & ANENTO, 1996). **comb. nov.**

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Zusammenfassung

In dieser taxonomischen Studie über einige Ichneumoninae aus der westpaläarktischen Region werden vier Taxa als neu beschrieben: *Homotheus coxistriatus* **n. sp.** aus Deutschland, *Platylabus rufoniger* **n. sp.** aus Frankreich, *Rictichneumon persicus* **n. sp.** aus dem Iran und *Rubicundiella walli* **n. sp.** aus Deutschland.

Für drei Arten werden die bisher unbekannten ♂♂ beschrieben: *Baranisobas ridibitor* (AUBERT, 1994), *Platylabops virginalis* (WESMAEL, 1845) und *Coelichneumon nigrifrons* RIEDEL, 2017.

Neu kombiniert wurden: *Virgichneumon submontanus* (HEINRICH, 1951) **n. comb.**, *Baranisobas ridibitor* (AUBERT, 1994) **n. comb.** und *Melanichneumon horstmanni* (SELF & ANENTO, 1996) **n. comb.**

Baranisobas sinetuber TERESHKIN, 2002 ist ein neues Synonym von *Baranisobas ridibitor* (AUBERT, 1994), und *Barichneumon tegelensis* HEINRICH, 1951 ist ein neues Synonym von *Barichneumon chionomus* (WESMAEL, 1845).

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