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The genus *Syzeuctus* FÖRSTER in the Western Palaearctic region and Central Asia (Hymenoptera, Ichneumonidae, Banchinae), with descriptions of 17 new species

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A b s t r a c t : In this taxonomical revision of the genus *Syzeuctus* FÖRSTER from the Western Palaearctic region and Central Asia, 46 different species are mentioned.

18 of these taxa are described as new: *Syzeuctus altaicus* nov.sp., *Syzeuctus brevipunctatus* nov.sp., *Syzeuctus brunneomaculatus* nov.sp., *Syzeuctus flagellator* nov.sp., *Syzeuctus flavator* nov.sp., *Syzeuctus flavomaculatus* nov.sp., *Syzeuctus frontator* nov.sp., *Syzeuctus hyalinus* nov.sp., *Syzeuctus ibericus* nov.sp., *Syzeuctus kabzabi* nov.sp., *Syzeuctus kazakhstanicus* nov.sp., *Syzeuctus maroccanus* nov.sp., *Syzeuctus mongolicus* nov.sp., *Syzeuctus paraturcator* nov.sp., *Syzeuctus persicus* nov.sp., *Syzeuctus pseudoceballosi* nov.sp., *Syzeuctus ruficoxis* nov.sp. and *Syzeuctus rufigaster* nov.sp.

The following new synonyms are established: *Syzeuctus pallidator* AUBERT, 1966 is a new synonym of *Syzeuctus crassitarsis* TELENGA, 1930; *Lissonota puberula* KRIECHBAUMER, 1895 and *Syzeuctus schmiedeknehti* BRAUNS, 1901 are new synonyms of *Syzeuctus exsculptus* (FONSCOLOMBE, 1854); *Syzeuctus quadripunctorius* KISS, 1929 and *Syzeuctus rufipes* KISS, 1933 are new synonyms of *Syzeuctus tenuifasciatus* SCHMIEDEKNECHT, 1900.

For *Syzeuctus hyalinipennis* SZÉPLIGETI, 1901, *Syzeuctus kaspariyator* AUBERT, 1977 and *Syzeuctus longigenus* UCHIDA, 1940 the males are described for the first time.

All species are described in detail and illustrated, and keys for the ♀♀ and ♂♂ are presented.

Key words : Ichneumonidae, Banchinae, *Syzeuctus*, new species, key, Palaearctic region

Introduction

The genus *Syzeuctus* FÖRSTER, 1868 is a rather large and worldwide genus of the Ichneumonidae, subfamily Banchinae, tribe Lissonotini with 123 known species to date (YU et al. 2016). Most of the species have a tropical or subtropical distribution and seem to be adapted to relatively dry habitats (TOWNES 1969).

Members of this genus are usually rare in collections, and even the taxonomy of the West Palaearctic *Syzeuctus* species is incompletely known so far. Also, host records and molecular data are very limited for the Palaearctic *Syzeuctus* species.

A first comprehensive key of the West Palaearctic species was published by SEYRIG (1928). AUBERT (1978) has reviewed the West Palaearctic *Syzeuctus* species, studied several types and compiled the available taxonomical, distributional and biological

informations. He stated that the species are insufficiently known for a definitive key to be established and that some species were more variable than SEYRIG had foreseen with his limited material (AUBERT 1978: 125). The Spanish *Syzeuctus* species have recently been studied by REY DE CASTILLO (1986). HORSTMANN (1998, 1999, 2009) gave some additional taxonomical informations for several European *Syzeuctus* taxa.

I had the opportunity to study the Palaearctic *Syzeuctus* species from several European collections and institutions for this revision. Due to the limited material, several new taxa are described here by single or few specimens only, and the variability of many species could not be addressed sufficiently. Also, the opposite sexes remain unknown for some of the new described taxa. Therefore, this revision is not more than a first step to a comprehensive knowledge of this genus in the Palaearctic region, and I suppose that several additional species will be found in the future, especially in the Near East and Central and East Asia.

For this study, the *Syzeuctus* species known from Japan, Korea and China were excluded, but I was able to study Eastern Palaearctic material and/or photos for comparison that was kindly sent by K. WATANABE (Kanagawa/Japan) who is actually preparing a revision of the Japanese *Syzeuctus* species.

Material and methods

The *Syzeuctus* material from following institutions was studied:

Biologiezentrum Linz/Austria (Linz), Kanagawa Prefectural Museum of Natural History (Kanagawa/Japan), Musée de Zoologie, Lausanne/Switzerland (Lausanne), Museo Nacional de Ciencias Naturales, Madrid/Spain (Madrid), Museum für Naturkunde, Berlin/Germany (Berlin), Naturhistorisches Museum Bern/Switzerland (Bern), Natural History Museum, Budapest/Hungary (Budapest), Natural History Museum, Edinburgh/Scotland (Edinburgh), Natural History Museum, London/United Kingdom (London), Natural History Museum, Rudolstadt, Germany (Rudolstadt), Zoologische Staatssammlung, Munich/Germany (Munich).

New distributional records were marked with an asterisk. For the host records, I only mentioned the material that were confirmed in this study.

The morphological terms were adopted from BROAD et al. (2018). Body length was measured without ovipositor. Length of 1st flagellomere was measured without anellus and length of temples and eyes measured from dorsal view. For comparison with other measurements, the relative length of the ovipositor (not of the ovipositor sheath) was used here.

For the descriptions the following abbreviations were used: OED: Distance from lateral ocellus to eye; OOD: Distance between lateral ocelli; MI: Malar index, e.g. relation of length of malar space to width of mandibular base. For the punctuation of body parts the following definitions were used: very scattered: distance of punctures $>2\times$ their diameter; scattered: distance $1-2\times$ 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 software and processed with the Helicon Focus and the Microsoft picture manager

softwares.

Description of the genus *Syzeuctus* FÖRSTER, 1868

(adopted from TOWNES 1969 and modified)

Body length 7-14 mm. Body of moderate proportions or \pm slender, mesosoma usually short. Frons usually swollen laterally and impressed medially or sometimes with sublateral horns or ridges above each antennal sockets. Clypeus 1.4-2.0 \times wider than long, apex usually convex but sometimes subtruncate, apical margin usually sharp. Separation between face and clypeus often indistinct. Malar space 0.2-1.1 \times as long as width of mandibular base. Mandible with two teeth of equal size, or upper tooth larger than lower one. Genal carina usually reaching mandibular base, in few species reaching hypostomal carina very close to mandibular base. Epomia long and strong. Mesoscutum polished, its punctures \pm dense and coarse. Lower half of mesopleuron moderately convex to flat. Epicnemial carina low or \pm elevated, usually with distinct pleural part, sometimes with \pm elevated, lamelliform or denticular transversal part (opposite to the ventral hind edge of pronotum). Propodeal spiracle usually long-oval. Pleural carina of propodeum usually absent; apical transversal carina present or absent, sometimes present laterally but \pm faint medially. Tarsal claws usually rather short, sometimes elongate, usually \pm pectinate. Areolet rather small, with long stalk, receiving 2nd recurrent vein \pm distal to its middle. 2nd recurrent vein \pm reclivous, with a single and usually short bulla. Nervulus interstitial or \pm postfurcal. Nervellus reclivous, intercepted behind the middle. 1st tergite 1.3-3.0 \times longer than wide, polished with scattered or \pm dense punctures, lacking dorsal and dorsolateral carinae, its spiracle near basal third. Upper profile of 1st tergite convex between base and spiracle, weakly convex to almost flat between spiracle and apex. Sometimes spiracle of basal tergites bulging laterally, sometimes \pm enlarged (in ♂♂, not in ♀♀ of known Palaearctic species). Ovipositor sheath 1.5-4.0 \times as long as hind tibia.

Key to the West Palaearctic and Central Asian species of *Syzeuctus* FÖRSTER

♀♀ (unknown for *S. flavator*):

1. Frons with two sublateral horns.2
- Frons without distinct sublateral horns, but often \pm swollen laterally and impressed medially, sometimes with short lateral transversal ridges or tubercles (*S. flagellator* runs through both alternatives).5
2. Hind femur black. 2nd and 3rd tergites longer than wide. Ovipositor 2.0-2.1 \times longer than fore wing. Temple strongly narrowed behind eye. Face black. Mesosoma black, without yellow coloration. Basal tergites reddish. Length 11-13 mm. Europe.
..... *S. bicornis* (GRAVENHORST, 1829)
- Hind femur red. 2nd and 3rd tergites square or wider than long. Ovipositor shorter, not more than 1.25 \times longer than fore wing.3
3. Tegula and anterolateral mark on mesoscutum yellow. Hind tibia red, yellow basally and \pm infusate apically. 1st to 4th tergites red. Spain. *S. leo* SEYRIG, 1926
- Mesosoma including tegula black. 4th tergite black or red basally.4
4. Ovipositor shorter, 0.85-0.9 \times as long as fore wing. Frons with distinct sublateral horns. Hind tibia brownish, reddish basally. 1st tergite apically, 2nd and 3rd tergite entirely and 4th tergite basally red. Spain *S. caper* SEYRIG, 1927

- Ovipositor longer, 1.2-1.25× longer than fore wing. Frons moderately swollen laterally or with sublateral tubercles, but without distinct horns. Hind tibia reddish-yellow basally, black in apical half. 2nd and 3rd tergites red, sometimes 4th tergite red basally (fig. 13). France and Switzerland. *S. flagellator* nov.sp., part
- 5. Apical transversal carina of propodeum complete, sometimes shortly obsolete medially. 6
- Apical transversal carina entirely absent or widely interrupted medially. 32
- 6. Head and mesosoma black or with very limited yellow coloration (fig. 2). Metasoma black, with some ± reddish basal tergites, without distinct apical yellow bands. 7
- Head and mesosoma usually with extended yellow coloration (figs 3, 6), if yellow coloration reduced, than tergites black and often with yellow apical bands (fig. 35). 15
- 7. Ovipositor very long, about 2× longer than fore wing. Legs including coxae and trochanters entirely red. Ocelli large, OED 0.9× ocellar diameter (fig. 133). Serbia. *S. ruficoxis* nov.sp.
- Ovipositor shorter, at most 1.5× longer than fore wing. Coxae and trochanters usually black and/or yellowish. Ocelli variable. 8
- 8. Antenna with 31-33 flagellomeres Metasoma stout; 2nd and 3rd tergites wider than long (figs 25, 31). Fore wing hyaline. 9
- Antenna with at least 35 flagellomeres. 2nd and 3rd tergites sometimes longer than wide. Fore wing sometimes with subapical brown spot. 10
- 9. Genal carina low ventrally. Frons usually with ± distinct sublateral tubercles. Mesosoma including tegula black (fig. 2). Ovipositor 1.2-1.25× longer than fore wing. Length 8.5-9.5 mm. France, Switzerland. *S. flagellator* nov.sp., part
- Genal carina lamelliform widened ventrally. Frons without sublateral tubercles. Mesosoma with some yellow coloration (fig. 1). Ovipositor 0.8-0.9× as long as fore wing. Length 9 mm. Kyrgyzstan. *S. altaicus* nov.sp., part
- 10. Tegula yellow or red. Fore wing with subapical brown spot. 11
- Tegula black. Fore wing hyaline, sometimes with weak apical spot. 12
- 11. Metasoma less stout; 1st tergite 1.5-1.9× longer than wide. OED 1.5-1.8× ocellar diameter. Ovipositor 1.1-1.4× longer than fore wing. Antenna with 37-41 flagellomeres. Length 10-12 mm. *S. maculipennis* f. *lunigera* BRAUNS, 1888
- Metasoma very stout; 1st tergite 1.2× longer than wide. OED 1.7× ocellar diameter. Ovipositor as long as fore wing. Antenna with 36 flagellomeres. Length 9-10 mm. *S. vigil* (TOSQUINET, 1900), part
- 12. Ocelli small, OED 2.0-2.6× ocellar diameter (fig. 110). Antenna with 40-44 flagellomeres. Hind femur black or red. 1st tergite 1.5-1.7× longer than wide, 2nd and 3rd tergites ± square. Ovipositor 1.0-1.4× longer than fore wing. Length 9-12 mm. Palearctis *S. exsculptus* (FONSCOLOMBE, 1854)
- Ocelli larger, OED at most 1.7× ocellar diameter. 13
- 13. Hind femur blackish, slender, 5.9× longer than wide 1st tergite entirely red (fig. 35). Length 9.5 mm. Far East Russia, Mongolia. *S. hyalinipennis* SZÉPLIGETI, 1901
- Hind femur red, stouter, not more than 5.0× longer than wide. 1st tergite often black basally. 14
- 14. 2nd to 4th tergites red, 5th and 6th tergites black. Propodeum densely punctate (fig. 99). Ovipositor c. 1.0× as long as fore wing. Length 10-11 mm. Palearctis. *S. petiolaris* (GRAVENHORST, 1829)
- 2nd to 6th tergites red. Propodeum densely rugose-punctate (fig. 98). Ovipositor 1.1-1.2× longer than fore wing. Length 10 mm. Kazakhstan. *S. kazakhstanicus* nov.sp.
- 15. 2nd hind tarsomere shorter or as long as 3rd hind tarsomere (fig. 56). Hind femur stout, 4.1-4.4× longer than wide. Hind tarsomeres with strong apical bristles. Tergites red and yellow. Fore wing with brown subapical spot. 16
- 2nd hind tarsomere at least 1.2× longer than 3rd hind tarsomere. 17

16. 2nd hind tarsomere shorter (0.9-0.95×) than 3rd hind tarsomere. Malar space wide, MI 0.6-0.8. 2nd and 3rd tergites longer than wide. Antenna with 31-36 flagellomeres. Face entirely yellow. Length 7-10 mm. North Africa, Central Asia.*S. crassitarsis* TELENGA, 1930
- 2nd hind tarsomere about as long as 3rd hind tarsomere. Malar space narrow, MI 0.25-0.3. 2nd and 3rd tergites about square. Antenna with 35-36 flagellomeres. Face with central brown stripe. Length 11-12 mm. Mongolia.*S. mongolicus* nov.sp.
17. Ovipositor very long, more than 1.5× longer than fore wing. 2nd and 3rd tergites longer than wide. Fore wing with subapical brown spot.18
- Ovipositor shorter, 0.8-1.5× as long as fore wing.19
18. Fore and mid legs yellowish, with brown dorsal stripes. Antenna with 38-42 flagellomeres. Metasoma black or basal tergites ± reddish, usually 2nd to 4th tergites with distinct yellow apically bands. Ovipositor 1.6-2.0× longer than fore wing. Length 11-13 mm. Palaearctis.*S. longivalvator* AUBERT, 1977
- Legs including coxae and trochanters mainly red. Antenna with 34-42 flagellomeres. Metasoma red or brownish; 1st to 3rd tergites with diffuse reddish or yellowish apical bands (fig. 38). Ovipositor 1.75× longer than fore wing. 14 mm. Mongolia.*S. kabzabi* nov.sp.
19. Antenna with 31 flagellomeres. Genal carina lamelliform widened ventrally. 2nd and 3rd tergites wider than long. Ovipositor 0.8-0.9× as long as fore wing. 2nd to 4th tergites red. Fore wing hyaline. Legs except black coxae and trochanters reddish (figs 1, 12). Length 9 mm. Kyrgyzstan.*S. altaicus* nov.sp., part
- Antenna with more flagellomeres. Ovipositor usually longer than fore wing.20
20. Basal tergites ± red, without distinct yellow apical bands.21
- Basal tergites black or red, often with distinct yellow apical bands.24
21. Metasoma slender; 2nd and 3rd tergites longer than wide (fig. 27).22
- Metasoma stouter; 2nd and 3rd tergites wider than long (fig. 50).23
22. Fore wing with subapical brown spot. Mesoscutum densely and coarsely punctate. Hind femur usually red. 1st to 3rd tergites red, sometimes 1st to 4th tergites with apical yellow bands. Antenna with 37-41 flagellomeres. Length 10-12 mm. Palaearctis.*S. maculipennis* (COSTA, 1883), part
- Fore wing hyaline, without brown spot. Mesoscutum with scattered punctures anteriorly and almost smooth posteriorly (fig. 24). Hind femur black, narrowly yellow apically. Apical half of 1st tergite, 2nd tergite entirely and basal band of 3rd tergite red. Antenna with 41 flagellomeres. Length 11 mm. Kazakhstan.*S. brevipunctatus* nov.sp.
23. Fore wing with subapical brown spot. Ovipositor as long as fore wing. 1st tergite 1.2× longer than wide, 2nd and 3rd tergites 1.2-1.3× wider than long (fig. 50). Hind femur 4.8-5.3× longer than wide, red. 1st to 3rd tergites black, with reddish-brown suffusion OR entirely red (f. *rufus* AUBERT). Length 9-10 mm. East Europe, Russia.*S. vigil* (TOSQUINET, 1900), part
- Fore wing hyaline, without brown spot. Ovipositor 1.3× longer than fore wing. 1st tergite 1.3-1.4× longer than wide, with rather dense coarse punctures laterally. 2nd tergite 1.0-1.15× wider than long, 3rd tergite 1.1-1.2× wider than long (fig. 47). Hind femur 5.3-5.6× longer than wide. 1st to 5th tergites red, 6th and 7th tergites brownish. Length 9-10 mm. Kyrgyzstan.*S. rufigaster* nov.sp.
24. Antenna with 43-45 flagellomeres. Hind tibia brownish, with yellow external stripe; hind femur black, sometimes with yellow dorsal stripe. Frontal orbit with strongly widened yellow spot (figs 70, 113). OED 1.8× ocellar diameter. Hind femur slender, 5.9× longer than wide. Wing hyaline or with weak apical brown spot. Metasoma black or 1st to 4th tergites with narrow yellow bands. Ovipositor 1.1-1.2× longer than fore wing. Length 10-12 mm. Turkey, Syria.*S. frontator* nov.sp.
- Antenna with lower number of flagellomeres. Hind tibia usually yellow, ± infuscate apically; hind femur variable. Frontal orbit often with ± narrow yellow stripe.25

25. Metasoma entirely black or central tergites with narrow yellow-red apical margins. Antenna with 36-42 flagellomeres. Ovipositor 1.1-1.4× longer than fore wing. Coxae, trochanters and trochantelli black. All femora yellowish-red or red. Mesosoma often with reduced yellow marks. West Palaearctis *S. tenuifasciatus* SCHMIEDEKNECHT, 1900
- Basal tergites with ± distinct yellow apical bands. Mesosoma including propodeum with extended yellow marks. Fore and mid femora usually yellowish; hind femur black or red to reddish-brown, but always darker than mid femur.....26
26. Hind femur blackish (rarely red or reddish-brown), often yellow apically. 2nd and 3rd tergites longer than wide. Ovipositor as long as or slightly longer than fore wing. Antenna with less than 40 flagellomeres.....27
- Hind femur red OR yellow ventrally and brown or red dorsally.....28
27. Hind trochantellus ± yellow. 1st to 4th tergites with wide apical yellow bands. Antenna with 37-38 flagellomeres. Frons with strong lateral swellings. Ovipositor 1.1-1.4× longer than fore wing. Europe..... *S. bicolor* SZÉPLIGETI, 1899
- Hind trochantellus usually dark-brown. 1st to 3rd tergites (rarely also 4th tergite) with apical yellow bands. Antenna with 33-39 flagellomeres. Frons with slight lateral swellings. Ovipositor 1.0-1.4× longer than fore wing. West Palaearctis..... *S. fuscator* (PANZER, 1809)
28. Metasoma stout; 2nd and 3rd tergites slightly wider than long (figs 33, 36). Fore wing hyaline. Ovipositor 0.9-1.2× as long as fore wing.29
- Metasoma slenderer, 2nd and 3rd tergites at least as long as wide (fig. 41). Fore wing sometimes with brown spot. Ovipositor 1.1-1.5× longer than fore wing.....30
29. Ovipositor 1.1-1.2× longer than fore wing. MI 0.9-1.0. Smaller, length 9-9.5 mm. Mongolia..... *S. hyalinus* nov.sp.
- Ovipositor 0.9× as long as fore wing. MI 0.75-0.9. Larger, body length 10-11 mm. Eastern Europe..... *S. decoratus* (COSTA, 1890)
30. Fore wing with subapical brown spot. Hind femur usually red. 1st to 3rd/4th tergites red, 1st to 4th/5th tergites with apical yellow bands. Antenna with 37-41 flagellomeres. Length 10-12 mm. West Palaearctis..... *S. maculipennis* (COSTA, 1883), part
- Fore wing hyaline or with apical brown spot.31
31. Antenna with 38 flagellomeres. Temples shortly parallel behind eyes. Hind femur slender, 5.3× longer than wide. 2nd and 3rd tergites red, ± yellow apically, apical tergites brown (fig. 10). Ovipositor c. 1.2× longer than fore wing. Fore wing with apical brown spot. Length 11 mm. Iran..... *S. brunneomaculatus* nov.sp.
- Antenna with 33-35 flagellomeres. Temples roundly narrowed behind eyes. Hind femur stouter, 4.8-4.9× longer than wide. Fore wing hyaline. Ovipositor 1.2-1.4× longer than fore wing. Tergites mainly red, with apical yellow bands on 1st to 5th tergites (fig. 45). Fore wing without distinct brown spot. Length 8-9.5 mm. China, Mongolia..... *S. longigenus* UCHIDA, 1940
32. Genal carina reaching hypostomal carina shortly before mandibular base. 2nd to 3rd/4th tergites with separated triangular basomedian areas (fig. 49). Antenna with 28-32 flagellomeres. Ovipositor 1.05-1.15× longer than fore wing. Fore wing with apical brown spot. Length 8-10 mm. *S. tigris* SEYRIG, 1926
- Genal carina reaching mandibular base. 2nd and 3rd tergites without distinct basomedian areas. Ovipositor shorter or longer than fore wing.33
33. Antenna with 31 flagellomeres. Head and mesosoma largely yellow, with reduced blackish spots. Hind femur yellow. Metasoma red and yellow, stout; 2nd and 3rd tergites wider than long (fig. 29). Fore wing with weak subapical brown spot.....34
- Antenna usually with more flagellomeres. Head and mesosoma usually with extended blackish coloration. Metasoma often ± blackish.35
34. Clypeus with central transversal ridge. MI 1.0 (fig. 62). Temple shorter, dorsally 0.3-0.4× eye length. Metasoma mainly reddish, 1st to 5th tergites with yellow apical bands. Ovipositor shorter, 0.7× as long as fore wing. 9 mm. Egypt, Morocco.....

-*S. caudulator* SHAUMAR, 1966
- Clypeus without central transversal ridge. MI 0.6. Temple longer, dorsally 0.5× eye length. Basal tergites reddish, apical tergites brown; all tergites with wide apical yellow bands. Ovipositor longer, about as long as fore wing. 9 mm. Egypt.*S. heluanensis* SCHMIEDEKNECHT, 1900
 - 35. 1st tergite very stout, 1.25-1.5× longer than wide, 2nd and 3rd tergites wider than long (fig. 37).36
 - 1st tergite slenderer, more than 1.5× longer than wide. 2nd and 3rd tergites ± longer than wide (fig. 48).37
 - 36. Mesosoma with reduced yellow coloration; pronotum black. 1st to 4th/5th tergites reddish. Ovipositor 1.2-1.4× longer than fore wing. Antenna with 37-41 flagellomeres. Length 10-11 mm. Europe.*S. inaequalis* (FONSCOLMBE, 1854)
 - Mesosoma with extended yellow coloration; pronotum ± yellow. Ovipositor 0.8-1.1× as long as fore wing. Tergites black (sometimes 2nd and 3rd tergites ± reddish), with apical yellow bands on 1st to 4th/5th tergites. Antenna with 32-38 flagellomeres. Length 8-12 mm. West Palaearctis.*S. irrisorius* (ROSSI, 1794)
 - 37. Ovipositor 1.8× longer than fore wing. 1st tergite slender, 1.45× longer than wide, 2nd and 3rd tergites distinctly longer than wide. 1st to 3rd tergite red, 4th tergite only basally, without apical yellow bands (fig. 17). Basal cell of fore wing sparsely pilose. Length 11 mm. Spain.*S. ibericus* nov.sp.
 - Ovipositor shorter, not more than 1.4× longer than fore wing. Tergites usually with yellow apical bands.38
 - 38. Claws strongly bent apically (by c. 90°). 1st to 3rd tergites black, red basally and apically, often with yellowish apical band (fig. 48). 4th and 5th tergites completely black. Hind femur red or brown. Antenna with 41-43 flagellomeres. 1st tergite more than 2× longer than wide. Ovipositor sheath 1.1-1.2× longer than fore wing. Length 10-12 mm. Europe.*S. szilagysagiensis* KISS, 1926
 - Claws moderately bent apically (less than 90°). Other characters different.39
 - 39. Ovipositor 1.4× longer than fore wing. MI 0.7. Antenna with 36-37 flagellomeres; flagellum dark brown or black. OED 1.4-1.6× ocellar diameter (fig. 128). 5th tergite black. Turkey, Iran.*S. paraturcator* nov.sp., part
 - Ovipositor shorter, at most 1.2× longer than fore wing.40
 - 40. Hind coxa, trochanter and trochantellus mainly black. Ovipositor 1.0-1.15× as long as fore wing. 1st tergite 1.6-1.7× longer than wide. Hind femur slender, 6.0-6.2× longer than wide. Apical tergites black. Length 10-12 mm. Spain.*S. ceballosi* SEYRIG, 1926
 - Hind coxa, trochanter AND/OR trochantellus ± yellow. 1st tergite often slenderer.41
 - 41. Ovipositor 0.9-1.2× as long as fore wing. Hind femur red. OED 1.1-1.4× ocellar diameter.42
 - Ovipositor 0.7-0.85× as long as fore wing. Hind femur often brown or black. OED at most 1.2× ocellar diameter.44
 - 42. Apical tergites black, 5th tergite with yellow apical band. 2nd tergite 1.1× longer than wide. OED 1.4× ocellar diameter (fig. 112). Hind femur red, 5.5× longer than wide. Length 10.5 mm. Mongolia.*S. flavomaculatus* nov.sp.
 - Apical tergites red or black, 5th tergite without apical yellow band. Hind femur slenderer.43
 - 43. OED 1.1× ocellar diameter (fig. 131). 5th to 7th tergites reddish. Hind femur 6.3× longer than wide. 1st tergite 2.0-2.1× longer than wide, 2nd tergite 1.3× longer than wide. Length 10.5 mm. Iran.*S. pseudoceballosi* nov.sp.
 - OED 1.4× ocellar diameter (fig. 138). 5th to 7th tergites blackish, sometimes reddish laterally. Hind femur 5.7-6.0× longer than wide. 1st tergite 1.8-1.9× longer than wide, 2nd tergite 1.1-1.2× longer than wide. Length 8-10 mm. Near East.*S. turcator* AUBERT, 1984

44. Basal tergites very slender: 1st tergite 2.6× and 2nd tergite 1.5× longer than wide (fig. 42). Metasoma reddish-brown, 1st to 4th tergites with diffuse narrow yellowish apical bands. Antenna with 39 flagellomeres. Fore wing with strong brown apical spot. Malar space narrow, MI 0.5. Length 10 mm. Morocco. *S. maroccanus* nov.sp.
 - Basal tergites stouter: 1st tergite 2.0-2.2× and 2nd tergite 1.1-1.2× longer than wide. 1st to 4th/5th tergites with wide apical yellow bands.....45
45. OED 1.7× ocellar diameter (fig. 129). Pale coloration ivory (fig. 20). 5th tergite black, without apical yellow band. Hind femur black. Antenna black. MI 0.4. Antenna with 36 flagellomeres. Fore wing with brown apical spot. Length 9 mm. Iran. *S. persicus* nov.sp.
 - OED at most 1.2× ocellar diameter. Pale coloration yellow. 5th tergite with apical yellow band.46
46. MI 0.4-0.5. Ocelli large, OED 0.9-1.0× ocellar diameter (fig. 120). Antenna ± reddish. Hind femur black or red. Antenna with 37-40 flagellomeres. Length 8.5-10.5 mm. Near East and Central Asia. *S. kaspariyator* AUBERT, 1977
 - MI 0.65-0.7. Ocelli smaller, OED at least 1.1× ocellar diameter.47
47. Basal tergites black, apical tergites reddish, 1st to 4th/5th tergites with apical yellow bands. Antenna with 38-40 flagellomeres. Fore wing with apical brown spot. Length 9.5-10 mm. Spain. *S. dusmeti* SEYRIG, 1928
 - Tergites mainly red, 1st to 5th tergites with wide yellow apical bands. Antenna with 34-37 flagellomeres. Fore wing hyaline. Length 9 mm. Morocco, Russia, Turkey. *S. robustor* AUBERT, 1978

♂♂ (unknown for *S. altaicus*, *S. brevipunctatus*, *S. brunneomaculatus*, *S. flavomaculatus*, *S. hyalinus*, *S. ibericus*, *S. kabzabi*, *S. maroccanus*, *S. persicus*, *S. pseudoceballosi*, *S. ruficoxis* and *S. rufigaster*):

1. Frons with two sublateral horns. 2nd to 3rd/4th tergites red.2
 - Frons without distinct sublateral horns, but often ± swollen laterally and impressed medially, sometimes with short lateral transversal ridges or tubercles (in *S. flagellator*, this species runs through both alternatives).5
2. 2nd and 3rd tergites longer than wide. Hind femur black or red. Antenna with 38-41 flagellomeres. Face completely yellow (sometimes with black paramedian stripes). Mesosoma black, without yellow coloration. 1st to 4th tergites red, 1st tergite black basally. *S. bicornis* (GRAVENHORST, 1829)
 - 2nd and 3rd tergites square or wider than long. Hind femur red.3
3. Tegula and anterolateral marks on mesoscutum yellow. Antenna with 35 flagellomeres. Hind tibia red, yellow basally and ± infuscate apically. Hind trochantellus yellow. 2nd to 4th tergites red. *S. leo* SEYRIG, 1926
 - Mesosoma black, sometimes tegula with yellow spot.4
4. Frons with two sublateral horns. Face black, sometimes with yellow stripes, facial orbits yellow. Antenna with 35-37 flagellomeres. Hind trochantellus red. *S. caper* SEYRIG, 1927
 - Frons moderately swollen laterally or with sublateral tubercles, but without distinct horns. Face entirely yellow (fig. 97). Antenna with 33-34 flagellomeres. Hind trochantellus yellow. *S. flagellator* nov.sp., part
5. Tergal spiracles ± enlarged, at least on basal tergites (fig. 55).6
 - Tergal spiracles normal, pit-shaped, not enlarged.8
6. Tergal spiracles moderately enlarged, roundish or oval. 1st to 3rd tergites black, often with yellowish apical band. 4th and 5th tergites completely black. Antenna with 42-46 flagellomeres. Length 9-11 mm. *S. szilagysagiensis* KISS, 1926
 - Tergal spiracles strongly enlarged, reniform (fig. 55).7
7. Ocelli very large, OED 0.8-1.0× ocellar diameter. Hind femur black, narrowly yellow apically. Antenna with 37-39 flagellomeres. Length 8-10 mm. *S. kaspariyator* AUBERT, 1977

- Ocelli smaller, OED 1.4-1.6× ocellar diameter. Hind femur red. 1st to 3rd/4th tergites black, with wide apical yellow bands, following tergites reddish. Antenna with 44-45 flagellomeres. Body length 10-11 mm. *S. dusmeti* SEYRIG, 1928
- 8. Apical transversal carina of propodeum complete, sometimes shortly obsolete medially.....9
- Apical transversal carina completely absent or widely interrupted medially.27
- 9. 2nd hind tarsomere at most as long as 3rd hind tarsomere (fig. 56).10
- 2nd hind tarsomere at least 1.2× longer than 3rd hind tarsomere.....11
- 10. Malar space wider, MI 0.5-0.6. 2nd and 3rd tergites longer than wide. Antenna with 36 flagellomeres. 7 mm. *S. crassitarsis* TELENGA, 1930
- Malar space very narrow, MI 0.25-0.35. 2nd and 3rd tergites about square. Antenna with 34-36 flagellomeres. 11-12 mm. *S. mongolicus* nov.sp.
- 11. Mesosoma black or with very limited yellow coloration; pronotum black. Metasoma black, basal tergites ± reddish.12
- Mesosoma with extended yellow coloration; pronotum ± yellow. Tergites often with yellow hind bands. Apical tergites sometimes ± reddish.....17
- 12. Antenna with 33-34 flagellomeres Frons usually with sublateral tubercles. Mesosoma except yellow tegula black. 2nd and 3rd tergites wider than long. 1st to 3rd tergites red, 1st tergite black basally (fig. 54). Fore wing hyaline, without brown spot. Length 8.5-9.5 mm. *S. flagellator* nov.sp., part
- Antenna with at least 35 flagellomeres. Frons without sublateral tubercle.....13
- 13. Hairs on head and mesosoma long and erected (as fig. 97). Ocelli small, OED 2.1-2.5× ocellar diameter. 2nd and 3rd tergites wider than long. Hind femur black or reddish-brown. Temple almost parallel behind eye and moderately narrowed apically. Tegula black. Length 8.5-10 mm. *S. exsculptus* (FONSCOLOMBE, 1854)
- Hairs on head and mesosoma not exceptionally long and erected. Ocelli larger, OED 1.1-1.9× ocellar diameter. 2nd and 3rd tergites longer than wide. Temple strongly narrowed behind eye.14
- 14. Hind femur black.15
- Hind femur red.16
- 15. Ocelli larger, OED 1.1-1.5× ocellar diameter. Face except black median stripe red. Mesoscutum, mesopleuron and metapleuron entirely black. Length 9-10 mm. *S. hyalinipennis* SZÉPLIGETI, 1901
- Ocelli smaller, OED 1.8-1.9× ocellar diameter. Facial orbit yellow, face black. Mesoscutum, mesopleuron and metapleuron with yellow spots. Length 10 mm. Mongolia. Spec. 2
- 16. 2nd to 4th tergites red, following tergites black. Tegula yellow. Length 9-10 mm..... *S. petiolaris* (GRAVENHORST, 1829)
- 2nd to 6th tergites red. Tegula black or yellow. Length 10 mm. *S. kazakhstanicus* nov.sp.
- 17. Head and mesosoma entirely yellow (figs 4, 11). Antenna with 35 flagellomeres; flagellum brown basally, reddish-brown in apical 2/3. Tergites yellow, with diffuse narrow reddish stripes basally and laterally; 2nd and 3rd tergites wider than long. Length 7.3 mm. Mongolia. *S. flavator* nov.sp.
- Head and/or mesosoma yellow and black. Body usually larger.18
- 18. Temple strongly and roundly narrowed behind eyes. Antenna with 36-43 flagellomeres. 2nd and 3rd tergites elongate, usually 1.2-1.4× longer than wide. 1st to 6th tergites with apical yellow bands.19
- Temple shortly parallel behind eye and moderately narrowed apically. 2nd and 3rd tergites shorter, usually square or wider than long.20
- 19. Hind femur stouter, 4.5-4.9× longer than wide. 1st tergite 1.7-2.1× longer than wide. Fore wing without apical brown spot. 10-12 mm. *S. longivalvator* AUBERT, 1977

- Hind femur very slender, 6.2× longer than wide. 1st tergite 2.4× longer than wide. Fore wing with weak apical brown spot. 10 mm. Alai Mountains. Spec. 1
- 20. Hind femur yellow ventrally and red or black dorsally; if completely red, than tergites ± red. Tergites often ± red, with or without yellow apical bands. Wings usually without apical brown stripe, rarely with weak apical spot. 21
- Hind femur black or red, often narrowly yellow apically, rarely (in *S. frontator*) with yellow dorsal stripe. Tergites black, with yellow apical bands. Usually fore wing with brown apical spot or stripe (sometimes weak). 24
- 21. Metasoma very stout; 1st tergite 1.2-1.4× longer than wide. 2nd and 3rd tergites wider than long. Face black, with narrow yellow facial orbits. OED 1.3-1.6× ocellar diameter. Hind femur red or brown, 4.3-4.8× longer than wide. Antenna with 34-37 flagellomeres. Basal tergites black, with some reddish-brown suffusion. 7-10 mm.
..... *S. vigil* (TOSQUINET, 1900)
- Metasoma less stout, 1st tergite at least 1.5× longer than wide. Face usually entirely yellow. Basal tergites usually with apical yellow bands. 22
- 22. All tergites red, with wide lateral and apical yellow bands. Antenna with 35-36 flagellomeres. 1st tergite 1.5× longer than wide; 2nd and 3rd tergites square or slightly wider than long. 8-9 mm. Mongolia. *S. longigenus* UCHIDA, 1940
- Basal tergites at least in part blackish, usually with apical yellow bands. Antenna often with more flagellomeres. 23
- 23. Antenna with 35-36 flagellomeres. 1st tergite 1.8× longer than wide, 2nd and 3rd tergites square or wider than long. Tergites except 1st tergite red, all tergites with apical yellow bands. 10-13 mm. *S. decoratus* (COSTA, 1890)
- Antenna with 36-43 flagellomeres. 1st tergite 1.5-1.7× longer than wide; 2nd and 3rd tergites ± square (0.9-1.1× as long as wide). Basal tergites usually ± red; at most 1st to 4th tergites with apical yellow bands, sometimes yellow bands weak or absent. 9-11 mm. *S. maculipennis* (COSTA, 1883), in part
- 24. Hind femur red, often narrowly yellow at apex. 1st to 4th tergites black, with yellow apical bands (rarely also 5th tergite). Antenna with 35-40 flagellomeres. 8-12 mm.
..... *S. tenuifasciatus* SCHMIEDEKNECHT, 1900
- Hind femur black or brown, often yellowish dorsally or apically. 25
- 25. Hind femur and tibia black, with external yellow stripes. Face completely yellow, frons with wide lateral yellow spots. Antenna with 43 flagellomeres. 1st to 5th tergites with apical yellow bands. *S. frontator* nov.sp.
- Hind femur black, narrowly yellow apically. Hind tibia yellow, blackish apically 26
- 26. Hind trochantellus usually yellow. 1st to 5th (rarely 1st to 4th) tergites with apical yellow bands, apical margins of following tergites often narrowly yellowish. Face usually with black paramedian stripes. Antenna with 36-38 flagellomeres. 8-9 mm.
..... *S. bicolor* SZÉPLIGETI, 1899
- Hind trochantellus usually dark-brown. 1st to 4th tergites (rarely also 5th tergite) with wide apical yellow bands; apical margins of following tergites often narrowly yellowish. Face usually entirely yellow. Antenna with 33-40 flagellomeres.
..... *S. fuscator* (PANZER, 1809)
- 27. Genal carina reaching hypostomal carina shortly before mandibular base. Antenna with 28-31 flagellomeres. MI 0.9. Length 7-8 mm. *S. tigris* SEYRIG, 1926
- Genal carina reaching mandibular base. Antenna usually with more flagellomeres (except *S. caudulator*). 28
- 28. 2nd and 3rd tergites square or wider than long. 29
- 2nd and 3rd tergites longer than wide. 32
- 29. Mesosoma with reduced yellow marks. 1st tergite stout, 1.2-1.3× longer than wide, 2nd and 3rd tergites wider than long. OED 1.7× ocellar diameter. 1st to 5th/6th tergites reddish, without apical yellow bands. Length 10-11 mm.
..... *S. inaequalis* (FONSCOLMBE, 1854)

- Mesosoma with rich yellow coloration. Metasoma usually slenderer. Basal and/or apical tergites usually with apical yellow bands.....30
- 30. Larger, length 10-12 mm. Antenna with 38-39 flagellomeres. 2nd and 3rd tergites square or wider than long. Metasoma black and yellow. Fore wing with brown apical spot.....*S. ceballosi* SEYRIG, 1926
- Smaller, length not more than 9 mm, Antenna with at most 36 flagellomeres. 2nd and 3rd tergites wider than long. Fore wing usually hyaline.....31
- 31. Antenna with 34-36 flagellomeres. MI 0.8-0.9. Metasoma black and yellow. Femora and tibiae reddish. Length 7-9 mm. *S. irrisorius* (ROSSI, 1794)
- Antenna with 30-33 flagellomeres. MI 1.1-1.2. Metasoma reddish and yellow. Femora and tibiae yellow, with brown dorsal stripes. Length 8-9 mm.....*S. caudulator* SHAUMAR, 1966
- 32. Ocelli rather large, OED 1.2× ocellar diameter. Metasoma mainly reddish and yellow. Legs yellow; hind femur reddish. Length 9 mm..... *S. robustor* AUBERT, 1978
- Ocelli smaller, OED at least 1.4× ocellar diameter. Metasoma black and yellow.33
- 33. Hind femur red or reddish-brown, yellow apically. Flagellum ± reddish. Face except narrow ventral black stripe yellow. 5th tergite with wide apical yellow band. Length 7.5-9 mm. *S. turcator* AUBERT, 1984
- Hind femur blackish, yellow apically. Flagellum brown or black. Face except yellow facial orbit black. 5th tergite black. Length 9.5 mm. *S. paraturcator* nov.sp.

Description of species

Syzeuctus altaicus nov.sp. (Figs 1, 12, 25, 57, 100)

H o l o t y p e : (♀) "S Siberia, Altai Mts, Sumultinsky Mt range, Karakol lake, 2000 m, 1-10 VII 2003, leg. Kartaskov" (coll. Riedel).

S t u d i e d m a t e r i a l : 1♀; Kyrgyzstan*.

D e s c r i p t i o n : ♀: Body length 9 mm. Antenna with 31 flagellomeres, filiform; 1st flagellomere 5.1× longer than wide and 0.59× as long as eye; preapical flagellomere 1.2× longer than wide. Temple strongly and almost linearly narrowed behind eye, dorsally 0.55× as long as eye. OED 1.6× and OOD 2.7× ocellar diameter. Frons slightly protruding laterally and slightly impressed medially, with scattered punctures, shining. Face densely punctate, centrally protruding and partly rugose, inner eye margins parallel. Clypeus 2.0× wider than long, convex, with scattered punctures and rather long erected hairs; apical margin rounded. Lower mandibular tooth smaller than upper one. MI 0.8. Genal carina lamelliform elevated and slightly sinusoid ventrally, reaching mandibular base.

Mesosoma with coarse dense punctures, 1.3× longer than high. Frontoventral edge of pronotum strongly bent; lateral pronotal groove partly rugose. Epicnemial carina low, with pleural part, but without distinct carina on transversal part. Propodeum with complete apical transversal carina. Hind femur 4.6× longer than wide. Hind metatarsus 0.70× as long as hind femur. 2nd hind tarsomere 1.25× longer than 3rd one. Hind claw with 2-3 short basal teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell slightly shorter or as long as their intervals. Hind wing with 8 distal hamuli.

Metasoma stout; 1st tergite 1.3× longer than wide, with scattered setiferous punctures laterally, largely smooth medially. 2nd tergite 1.2× wider than long, with rather dense

punctures. 3rd tergite 1.2× wider than long, densely punctate. Ovipositor 0.85× as long as fore wing, 1.0× as long as metasoma and 2.0× longer than hind tibia.

Color: Black. Palps, mandibular base, clypeus and spot on gena reddish. Orbits (widened at vertex and shortly interrupted on gena), spot on collar, hook-shaped anterolateral spot on mesoscutum, tegula, subtegular ridge, sides and apex of scutellum and spot on fore coxa and trochanter yellow. 1st tergite apically and 2nd to 4th tergites entirely reddish (2nd and 4th tergites with some brownish suffusion). Legs except black coxae and trochanters reddish; fore and mid legs yellowish frontally; hind tibia yellow in basal third and narrowly infusate at apex; hind tarsus black, hind metatarsus and 2nd hind tarsomere with median yellow stripes. Wings hyaline, without brown spots; pterostigma ochreous.

♂ and hosts unknown.

Remark: This new species with complete apical transversal carina of propodeum is characterized by its stout metasoma, reddish basal tergites without yellow bands, ventrally lamelliform genal carina, rather short ovipositor and low number of flagellomeres.

***Syzeuctus bicolor* SZÉPLIGETI, 1899 (Figs 58, 101)**

Original: *Syzeuctus bicolor* SZÉPLIGETI, 1899: 31

LECTOTYPE: (♀) "Svábheg 898.VI.26; *Syzeuctus bicolor* SZÉPL.; Szépligeti 07" (Budapest), type studied.

syn. *Ichneumon maculatorius* FABRICIUS, 1787: 261, preoccupied by MÜLLER, 1776, synonymized with *bicolor* by SCHMIEDEKNECHT 1907, type lost.

Studied material: 6♀, 8♂; Bulgaria*, Croatia, France, Germany, Hungary, Slovakia, Spain.

Description: ♀: Body length 9-9.5 mm. Antenna with 37-38 flagellomeres; 1st flagellomere 4.6-4.8× longer than wide and 0.6× as long as eye; preapical flagellomere 1.0-1.1× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally 0.55× as long as eye. OED 1.3-1.6× and OOD 2.1× ocellar diameter. Frons strongly impressed medially, sides distinctly swollen, with dense punctures. Face densely punctate, centrally protruding, inner eye margins slightly convergent ventrally. Clypeus 1.6-1.7× wider than long, with rather dense punctures, apical margin rounded. MI 0.6-0.65. Genal carina reaching mandibular base.

Mesosoma densely punctate, 1.4× longer than high. Lateral pronotal groove smooth. Speculum with partly scattered punctures. Epicnemial carina low, with dentiform lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 5.0-6.1× longer than wide. Hind metatarsus 0.65-0.7× as long as hind femur. 2nd hind tarsomere 1.3-1.35× longer than 3rd one. Hind claw with short basal teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 9 distal hamuli.

Metasoma rather slender; 1st tergite 1.6-1.9× longer than wide, with scattered lateral punctures. 2nd tergite 0.95-1.2× longer than wide, with scattered or rather dense punctures. 3rd tergite 1.0-1.1× longer than wide, densely punctate. Ovipositor 1.1-1.4× longer than fore wing, 1.3-1.8× longer than metasoma and 2.7-3.6× longer than hind tibia.

Color: Black. Mandibular base, clypeus, wider inner and narrow outer orbits, usually median stripe of face, upper margin of pronotum, anterolateral and central spots on mesoscutum, spot on mesopleuron, tegula, spot on subtegular ridge, scutellum except anteromedian black spot, postscutellum, apical band on propodeum, and apical bands on 1st-4th tergites yellow. Coxae and trochanters black; fore and mid trochanters with yellow spots; all trochantelli yellow; fore and mid legs yellow, mid tarsus brown; hind femur black, yellow in apical 0.2; hind tibia yellow, black in apical third, hind tarsus brownish. Wings with (often weak) apical brown stripes, pterostigma brown.

♂: Body length 8-9 mm. Antenna with 36-38 flagellomeres; 1st flagellomere c. 4.4× longer than wide; preapical flagellomere 1.1× longer than wide. Temple shortly parallel behind eye, moderately narrowed apically, dorsally 0.35× as long as eye. OED 1.4-1.6× ocellar diameter. Clypeus 1.6× wider than long. MI 0.7-0.85. Genal carina reaching mandibular base.

Pronotal groove smooth or punctate. Epicnemial carina moderately elevated, with dentiform lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 5.7× longer than wide. Areolet stalked, 2nd recurrent vein distal to the middle. Nervulus postfurcal by 1-3× its width.

Metasoma slender; 1st tergite 1.9× longer than wide, with very scattered fine punctures. 2nd tergite 1.1-1.15× longer than wide, with scattered fine punctures, 3rd tergite 1.1-1.25× longer than wide, with rather dense, fine and sometimes superficial punctures.

Color: Black. Flagellum black or red, basal flagellomeres darkened. Mandible except teeth, clypeus, median stripe on face, malar space and wide orbits yellow. Mesosoma with extended yellow coloration. Metasoma black, 1st tergite with basal or subbasal and apical yellow band; 2nd-4th/5th tergites with wide apical yellow bands. Coxae and trochanters black; fore and mid or all coxae and trochanters with yellow stripes; all trochantelli yellow; fore and mid legs yellow; hind femur brownish, narrowly yellow apically; hind tibia yellow, brown in apical 1/3-2/3; hind tarsus brown. Fore wing weakly brownish apically, pterostigma brown, yellowish proximally.

Hosts unknown.

R e m a r k : My interpretation of *Syzeuctus bicolor* corresponds with the interpretation of HORSTMANN (1999: 52).

***Syzeuctus bicornis* (GRAVENHORST, 1829) (Figs 26, 59, 102)**

O r i g i n a l : *Lissonota bicornis* GRAVENHORST, 1829: 91, type lost.

S t u d i e d m a t e r i a l : 43♀♀, 17♂♂; Austria, Czech Republic (Bohemia), France, Germany, Sweden, Switzerland, United Kingdom.

D e s c r i p t i o n : ♀: Body length 9.5-12 mm. Antenna with 38-42 flagellomeres; 1st flagellomere 4.0-4.6× longer than wide and 0.6× as long as eye; preapical flagellomere 1.3× longer than wide. Temple strongly and almost linearly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.5-1.6× and OOD 1.7× ocellar diameter. Frons, vertex and occiput mainly smooth, with few punctures; frons with two paramedian horns. Face densely punctate, eye margins slightly divergent ventrally. Clypeus 1.5-1.6× wider than long, convex, with scattered punctures; apical margin rounded. MI 0.85-1.0. Genal carina reaching mandibular base.

Mesosoma with coarse dense punctures, 1.45× longer than high. Lateral pronotal groove

smooth or partly rugose. Epicnemial carina low, with distinct tooth-shaped lamella on transversal part. Speculum \pm punctate. Propodeum with complete apical transversal carina. Hind femur 4.7-4.9 \times longer than wide. Hind metatarsus 0.65-0.7 \times as long as hind femur. 2nd hind tarsomere 1.4 \times longer than 3rd one. Hind claw densely pectinate and moderately curved apically. Areolet stalked; 2nd recurrent vein slightly distal to its middle. Nervulus postfurcal by 2 \times its width. Hairs on basal cell about as long as their intervals. Hind wing with 9 distal hamuli.

Metasoma slender; 1st tergite 1.8-2.0 \times longer than wide, with scattered fine setiferous or sometimes coarser punctures laterally. 2nd tergite 1.0-1.2 \times longer than wide, with fine scattered punctures. 3rd tergite 1.0-1.3 \times longer than wide, densely but \pm superficially punctate. Spiracles of 1st to 3rd tergites slightly protruding laterally. Ovipositor 2.0-2.1 \times longer than fore wing, 2.4 \times longer than metasoma and 4.3-4.4 \times longer than hind tibia.

Color: Black. Flagellum reddish-brown, basal flagellomeres infusate. Clypeus yellowish in apical 2/3. Frontal and outer orbits with short narrow yellow stripes. Mesosoma black. 1st to 3rd tergites red, 4th tergite only basally. Coxae and trochanters black; fore and mid legs reddish, tarsi \pm infusate; hind femur red, sometimes black; hind tibia and hind tarsus \pm black. Wings hyaline or slightly brownish infusate, without apical spots; pterostigma brown.

♂: Body length 10 mm. Antenna with 38-41 flagellomeres; 1st flagellomere 4.4 \times longer than wide and 0.64 \times as long as eye. Head and mesosoma with rather long erected hairs (as long as ocellar diameter). Temple moderately and roundly narrowed behind eye, dorsally c. 0.75 \times as long as eye. OED 1.8-2.1 \times and OOD 2.6 \times ocellar diameter. Frons with two paramedian horns, strongly impressed medially. MI 1.0. Genal carina reaching mandibular base. Epicnemial carina low, but with dentiform lamella on transversal part. Propodeum with distinct apical transversal carina. Hind femur 4.5-5.0 \times longer than wide. Areolet stalked; 2nd recurrent vein in or slightly proximal to its middle. Nervulus slightly postfurcal by 1 \times its width. Basal cell densely pilose.

1st tergite c. 2 \times longer than wide, almost smooth. 2nd tergite 1.05-1.15 \times longer than wide, with rather dense punctures. 3rd tergite 1.05-1.15 \times longer than wide, with dense but rather superficial punctures.

Color: Black. Flagellum reddish. Mandible except teeth, clypeus, face (sometimes with black paramedian stripes), gena, often outer and frontal orbits, scape ventrally, often tegula, spot on subtegular ridge, and part of propleuron yellow. Sometimes mesosoma entirely black. Fore and mid coxae frontally and fore and mid legs except reddish dorsal stripes yellow. 1st to 4th tergites red; 1st tergite black basally. Hind femur black or red and narrowly infusate apically or brown; hind tibia yellow basally, brown apically; hind tarsus brown. Wings hyaline, pterostigma brown.

Hosts unknown.

***Syzeuctus brevipunctatus* nov.sp. (Figs 24, 27, 60, 103)**

H o l o t y p e : (♀) "Kazakhstan, Kustanai, VIII 94, coll. V. Gurko" (Linz).

S t u d i e d m a t e r i a l : 1♀; Kazakhstan*.

D e s c r i p t i o n : ♀: Body length 11 mm. Antenna with 41 flagellomeres; 1st flagellomere 5.0 \times longer than wide and 0.58 \times as long as eye; preapical flagellomere 1.25 \times longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c.

0.3× as long as eye. OED 1.8× and OOD 2.3× ocellar diameter. Frons with rather scattered fine punctures, slightly swollen laterally and slightly impressed medially. Face densely punctate. Clypeus 2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.5. Upper mandibular tooth larger than lower one. Genal carina reaching mandibular base.

Mesosoma 1.45× longer than high. Mesoscutum with scattered punctures anteriorly and almost smooth and strongly shining in posterior half. Scutellum with fine and very scattered punctures. Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth, partly striate; speculum punctate. Epicnemial carina low, carina on pleural part distinct, transversal part without carina. Propodeum with dense, partly rather scattered punctures; apical transversal carina strong and complete. Hind femur 5.7× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.6× longer than 3rd one. Hind claw completely pectinate, slightly bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell shorter than their intervals. Hind wing with 9 distal hamuli.

1st tergite 1.5× longer than wide, with scattered punctures laterally. 2nd tergite 1.15× longer than wide, with rather coarse scattered punctures. 3rd tergite 1.15× longer than wide, with fine scattered punctures. Spiracles of basal tergites slightly protruding. Ovipositor 1.15× longer than fore wing, 1.2× longer than metasoma and 2.4× longer than hind tibia.

Color: Black. Palps, apical half of clypeus and flagellum except black basal flagellomere reddish. Narrow stripe from frontal orbit to upper outer orbit yellow. Two paramedian stripes on mesoscutum, spot on tegula, side and apex of scutellum and apical margin of postscutellum yellow. Metasoma black; apical half of 1st tergite, 2nd tergite entirely and basal band of 3rd tergite reddish. Legs black; frontal stripes on fore and mid femora, tibiae and tarsi, apical margin of hind trochantellus, apical 0.15 of hind femur, hind tibia except ochreous tip yellow; hind tarsus ochreous. Wings hyaline, without brown spot; pterostigma brown, cream-yellow proximally.

♂ and hosts unknown.

Remark: This new taxon resembles *S. vigil* (TOSQUINET), but is characterized by the reduced punctuation on mesoscutum and the slenderer metasoma. Due to the limited material, it is questionable if these differences indicate a separate taxon or an individual variation only.

***Syzeuctus brunneomaculatus* nov.sp. (Fig. 10)**

Holotype: (♀) "Iran, Kerman prov., 25 km E Jeroft (Mijan), 28°42'N 57°57'E, 1650 m, J. Halada, 27.5.2014" (Linz).

Studied material: 1♀; Iran*.

Description: ♀: Body length 11 mm. Antenna with 38 flagellomeres; 1st flagellomere 3.8× longer than wide and 0.51× as long as eye, preapical flagellomere 1.1× longer than wide. Temple parallel behind eye and slightly narrowed apically, 0.4× as wide as eye. OED 1.7× and OOD 1.5× ocellar diameter. Frons with scattered punctures, slightly swollen laterally, with weak median impression. Face densely punctate, with parallel sides. Clypeus 2.0× wider than long, with scattered punctures, apical margin rounded. Mandible with wide ventral lamella. MI 0.75. Genal carina reaching mandibular base.

Mesosoma $1.54\times$ longer than high. Frontoventral edge of pronotum strongly curved. Lateral pronotal groove smooth. Epicnemial carina low, without lamella on transversal section opposite to ventral edge of pronotum. Mesoscutum with scattered punctures in apical half; scutellum with scattered punctures; mesopleuron including speculum and metapleuron densely punctate. Propodeum with mainly dense punctures (but \pm scattered in central part), apical transversal carina complete. Hind femur $5.3\times$ longer than wide. Hind metatarsus $0.68\times$ as long as hind femur. 2nd hind tarsomere $1.35\times$ as long as 3rd one. Hind claw densely pectinate and moderately curved apically. Areolet stalked; 2nd recurrent vein slightly distal to its middle. Nervulus postfurcal by $1\times$ its width. Hairs on basal cell slightly shorter than their intervals. Hind wing with 9 distal hamuli.

1st tergite $1.6\times$ longer than wide, with scattered punctures. 2nd tergite $1.1\times$ longer than wide, with scattered punctures. 3rd tergite $1.0\times$ as long as wide, with rather dense punctures. Ovipositor $1.2\times$ longer than fore wing, $1.7\times$ longer than metasoma and $2.9\times$ longer than hind tibia.

Color: Black. Flagellum black, reddish-brown in apical half. Head yellow. Teeth of mandible, clypeal groove, narrow median stripe on face, surrounds of ocelli and occiput black. Scape and pedicel yellowish ventrally. Mesosoma yellow; three stripes on mesoscutum, scuto-scutellar groove, stripes on mesopleuron, mesosternum and metapleuron, and two paramedian stripes on propodeum black. 1st to 3rd tergites red, the following more brownish. 1st tergite with basolateral yellow spots and apical yellow band. 2nd and 3rd tergites with yellow apical bands. Fore and mid legs yellow, with reddish-brown caudal stripes; hind coxa yellow dorsally and reddish ventrally, hind trochanter red and black; hind trochantellus yellow; hind femur reddish-brown dorsally and yellow ventrally; hind tibia reddish internally and yellow externally; hind tarsus black in apical half. Fore wing with apical brown spot; pterostigma brown, yellow proximally.

♂ and hosts unknown.

Remark: This new species with complete apical transversal carina of propodeum is closely related to *S. maculipennis* (COSTA) and is characterized by parallel temples behind eyes, scattered and short hairs on basal cell of fore wing and reduced punctuation on mesoscutum, scutellum and median propodeum.

***Syzeuctus caper* (SEYRIG, 1927) (Figs 28, 61, 104)**

Original: *Diceratops caper* SEYRIG, 1927

Lectotype: (♀) "Espiel (Sierra Morena), 30-V-26 Seyrig" (Madrid), type not studied.

Studied material: 5♀♀, 2♂♂, Spain.

Description: ♀: Body length 8-9 mm. Antenna with 33 flagellomeres; 1st flagellomere $4.5\times$ longer than wide and $0.63\times$ as long as eye; preapical flagellomere $1.3-1.4\times$ longer than wide. Temple strongly and roundly narrowed behind eye, dorsally $0.35\times$ as long as eye. Stemmaticum moderately elevated. OED $1.5\times$ ocellar diameter. Frons slightly impressed medially, with a pair of sublateral tooth-shaped horns, with scattered punctures. Face densely punctate, centrally protruding, inner eye margins parallel. Clypeus $1.6\times$ wider than long, moderately convex, with scattered punctures, apical margin rounded. MI 0.8-0.9. Genal carina reaching mandibular base.

Mesosoma densely punctate, $1.4-1.45\times$ longer than high. Lateral pronotal groove \pm

rugose. Speculum with scattered punctures. Epicnemial carina slightly elevated, with low carina on transversal part. Apical transversal carina of propodeum complete. Hind femur 4.8-5.1× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.35× longer than 3rd one. Hind claw with long teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein in or slightly distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell longer than their intervals.

Metasoma stout; 1st tergite 1.3-1.4× longer than wide, with very scattered punctures, strongly shining. 2nd tergite 1.25-1.3× wider than long, with rather dense punctures. 3rd tergite 1.25-1.3× wider than long, densely but often superficially punctate. 1st tergite not distinctly widened basally. Spiracles on 1st to 3rd tergites slightly protruding laterally. Ovipositor 0.85-0.9× as long as fore wing, 1.1-1.2× longer than metasoma and 1.9-2.3× longer than hind tibia.

Color: Black. Antenna brown to black. Clypeus reddish or yellowish apically. Inner orbit up to vertex and outer orbit with narrow yellow stripes. Mesosoma black. 1st to 4th tergites red; 1st tergite basally and 4th tergite in apical half black; following tergites black. Coxae and trochanters black; legs otherwise reddish; hind tibia yellowish basally, infusate in apical 0.5-0.7; hind tarsus blackish, sometimes hind metatarsus with yellow stripe. Wings slightly infusate, without apical spot; pterostigma brownish-red.

♂: Body length 9 mm. Antenna with 35-37 flagellomeres; 1st flagellomere 4.2× longer than wide and 0.6× as long as eye. Temple moderately and roundly narrowed behind eye. OED 1.6× ocellar diameter. Clypeus 1.7× wider than long. MI 0.9-1.0. Lateral pronotal groove rugose and punctate. Apical transversal carina of propodeum sometimes obsolete medially. Hind femur 4.5-4.7× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.3-1.4× longer than 3rd one.

1st tergite 1.5-1.65× longer than wide, with very scattered punctures. 2nd tergite 1.1-1.15× wider than long, with rather dense punctures. 3rd tergite 1.05-1.1× wider than long.

Color: Black. Antenna reddish, darkened basally and sometimes apically. Mandible except teeth, clypeus, sometimes stripes on face, inner and outer orbits, sometimes spot on tegula, spot on fore coxa and fore and mid trochanters yellow. 2nd to 4th tergites red, 4th tergite sometimes black apically; 1st tergite black, apically ± red.

Hosts unknown.

***Syzeuctus caudulator* SHAUMAR, 1966 (Figs 29, 62, 105)**

Original: *Syzeuctus caudulator* SHAUMAR, 1966: 444.

Lectotype: (♂) "[red] *Syzeuctus caudulator* SH. Lectotype J.F. Aubert 1968; Egypte Ghized Reg. du Caire, 13.III.1958, leg. W.G. Pulawski" (Lausanne), type studied.

Paratype: (♀) "[red] Paratype; *Syzeuctus caudulator* SHAUMAR ♀; J.F. Aubert e.l. 15.1.1917 de Lazre 26.2.1916 Massara, Egypt" (Lausanne), type studied.

Studied material: 1♀, 5♂♂; Egypt, Morocco*.

Description: ♀: Body length 9 mm. Antenna with 31 flagellomeres; 1st flagellomere 4.2× longer than wide and 0.58× as long as eye; preapical flagellomere 1.1× longer than wide. Temple shortly parallel behind eye, moderately and roundly narrowed apically, dorsally 0.3-0.4× as long as eye. OED 1.7× and OOD 2.4× ocellar diameter. Frons densely punctate, sides strongly swollen and with strong median impression. Clypeus slightly convex, c. 2× wider than long, with central transversal ridge. MI 1.0. Genal carina reaching hypostomal one at mandibular base.

Mesosoma 1.4× longer than high. Frontoventral edge of pronotum strongly curved; lateral pronotal groove smooth ventrally. Epicnemial carina low, with low carina on transversal part. Speculum partly smooth. Propodeum with dense coarse punctures; apical transversal carina entirely absent. Hind femur 4.9× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Hind claw without visible teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 3× its width. Hairs on basal cell much shorter than their intervals. Hind wing with 8 distal hamuli.

1st tergite 1.45× longer than wide, with scattered punctures. 2nd tergite 1.25× wider than long, with scattered punctures. 3rd tergite 1.2× wider than long, with very superficial punctures. Ovipositor 0.7× as long as fore wing, 0.9× as long as metasoma and 1.7× longer than hind tibia.

Color: Head and mesosoma yellow. Antenna brownish. Median spot of frons, stripes around ocelli, occiput dorsally, two stripes on mesoscutum, three spots on mesopleuron, stripe on mesosternum, and two paramedian spots on propodeum blackish. Metasoma mainly red; 1st tergite with wide basal and apical yellow bands; 2nd and 3rd tergites with basolateral yellow spots and wide apical yellow bands; 4th and 5th tergites with wide apical yellow bands, hypopygium yellow. Legs yellowish. Fore wing with weak brown preapical spot; pterostigma brown, cream-yellow proximally.

♂: Body length 8-9 mm. Antenna with 30-33 flagellomeres; 1st flagellomere 3.9-4.6× longer than wide and 0.64× as long as eye; preapical flagellomere about square. Temple shortly parallel behind eye, moderately and roundly narrowed apically, dorsally c. 0.5× as long as eye. OED 1.5-1.9× and OOD 2.2× ocellar diameter. Frons densely punctate, distinctly swollen laterally, with strong median impression. Clypeus slightly convex, 1.6× wider than long, with central transversal ridge or bulge. MI 1.1-1.2. Genal carina reaching mandibular base.

Lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina low, without distinct transversal part. Apical transversal carina of propodeum entirely absent. Hind femur 4.7-5.2× longer than wide. Hind metatarsus 0.6-0.65× as long as hind femur. 2nd hind tarsomere 1.3-1.4× longer than 3rd one. Hind claw with dense short teeth. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 3× its width. Hind wing with 7-8 distal hamuli.

1st tergite 1.5-1.6× longer than wide, with very scattered fine punctures. 2nd tergite 1.3-1.35× wider than long, with scattered and fine setiferous punctures. 3rd tergite 1.3-1.55× wider than long, with scattered fine punctures. Basal tergites strongly shining. Spiracles of 1st-3rd tergites not protruding.

Color: Head and mesosoma mainly pale yellow. Antenna brownish. Sometimes median spot of frons, stripes around ocelli, dorsal occiput, three stripes on mesoscutum, two or three stripes on mesopleuron, two stripes on mesosternum and two paramedian stripes on propodeum black. 1st to 3rd/4th tergites yellowish, reddish-brown medially. 4th or 5th and 6th tergites reddish, sometimes with dark suffusions and wide yellow apical bands. Legs yellowish; hind coxa sometimes with black spot; hind trochanter sometimes with brown stripe; femora and tibiae with ± distinct dorsal brown stripes; hind tarsus dark brown. Fore wing without brown spot; pterostigma ochreous, cream-yellow proximally.

Hosts unknown.

***Syzeuctus ceballosi* SEYRIG, 1926 (Figs 63, 106)**

Original: *Syzeuctus ceballosi* SEYRIG, 1926: 129

Lectotype: (♀) "Aranjuez, 14-VI-1903, G. Mercet" (MNCN), type not studied.

Studied material: 3♀♀, 3♂♂; Spain.

Description: ♀: Body length 10.5-12 mm. Antenna with 37-38 flagellomeres; 1st flagellomere 4.6× longer than wide and 0.6× as long as eye; preapical flagellomere c. 1.2× longer than wide. Temple shortly parallel behind eye, strongly and roundly narrowed apically, dorsally c. 0.4× as long as eye. OED 1.3-1.5× ocellar diameter. Frons coarsely punctate, moderately swollen laterally, strongly impressed medially. Clypeus 1.6× wider than long, slightly convex, with scattered punctures, apical margin rounded. MI 0.75-0.8. Genal carina low, reaching hypostomal carina at mandibular base.

Mesosoma 1.4× longer than high. Lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina moderately elevated, with dentiform lamella on transversal part. Apical transversal carina of propodeum present laterally, absent medially. Hind femur 6.0-6.2× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd one. Hind claw completely pectinate, moderately curved at apex. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2-3× its width. Hairs on basal cell slightly shorter than their intervals.

1st tergite 1.6-1.7× longer than wide, with very scattered setiferous punctures; spiracle not protruding. 2nd tergite 1.0-1.05× longer than wide, with rather dense punctures. 3rd tergite 1.0-1.1× longer than wide, with dense punctures. Ovipositor 1.0-1.15× as long as fore wing, 1.15-1.3× longer than metasoma and 2.5-2.8× longer than hind tibia.

Color: Black. Antenna reddish-brown, black basally. Head black; base of mandible, clypeus and wide orbits entirely, and sometimes spot on face yellow. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, band on collar, ventral and posterior margins of pronotum and mesopleuron, entire mesosternum, margins (except posterior one) of metapleuron and two oblique paramedian stripes on propodeum black. Tergites black; 1st to 3rd tergites with yellow basal bands and 1st to 4th/5th tergites with wide apical yellow bands. All coxae and hind trochanter and trochantellus mainly black; fore and mid legs otherwise yellow; hind femur reddish; hind tibia and tarsus yellow-red. Fore wing hyaline, with brown apical band; pterostigma brown.

♂: Body length 12-14 mm. Antenna with 38-39 flagellomeres; 1st flagellomere 4.0× longer than wide and 0.6× as long as eye. Temple shortly parallel behind eye, moderately narrowed apically. OED 1.6× ocellar diameter. Clypeus 1.7-2× wider than long. MI 0.8-0.9. Genal carina reaching mandibular base. Lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina with dentiform lamella on transversal part. Apical carina of propodeum present laterally, absent medially. Hind femur 5.0-5.3× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd one. Hind claw with short teeth. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2-3× its width.

1st tergite 1.55-1.9× longer than wide, with scattered punctures. 2nd tergite 1.15× longer than wide to 1.1× wider than long, with scattered or rather dense punctures. 3rd tergite 1.1× longer than wide to 1.25× wider than long, with dense fine punctures.

Color: Antenna reddish, blackish basally. Spot on mandible, clypeus, wide orbits and spots on face yellow. Mesosoma with rich yellow coloration. Metasoma black; 1st and

2nd/3rd tergites with yellow basal bands. 1st to 5th tergites with wide yellow apical bands. Coxae and trochanters black, fore coxa and fore and mid trochanters with yellow stripes; hind trochantellus black, yellow apically. Legs mainly yellow; hind femur reddish, yellow apically; hind tibia yellow externally, red internally. Mid and hind tarsi brown distally. Wings with brown apical stripes. Pterostigma brown, yellow proximally.

Host: *Eublemma respersa* HÜBNER, 1829 (Lep. Erebidae) (Edinburgh).

***Syzeuctus crassitarsis* TELENGA, 1930 (Figs 30, 56, 64, 107)**

O r i g i n a l : *Syzeuctus crassitarsis* TELENGA, 1930: 105

H o l o t y p e : (♀) "Turkestan, Aschabad, 10.VI.1925, leg. Gussakovskij" (St. Petersburg), high resolution photos seen.

syn. *Syzeuctus crassitarsis bicolor* TELENGA, 1930: 106, preoccupied by SZÉPLIGETI, 1899, synonymized by YU & HORSTMANN 1997: 80.

H o l o t y p e : (♀) "Turkestan, Syr-Darja-Gebiet, 1927" (St. Petersburg), not studied.

syn. nov. *Syzeuctus pallidator* AUBERT, 1966: 39

L e c t o t y p e : (♀) "[red] Type; *Syzeuctus pallidator* AUB. ♀; J.F. Aubert Sineurada coll Dumont 1921 Tozeur Tunisie" (Lausanne), type studied and designated as lectotype here.

S t u d i e d m a t e r i a l : 5♀♀, 2♂♂; Mongolia*, Morocco*, Tunisia*, Turkmenistan, Uzbekistan.

D e s c r i p t i o n : ♀: Body length 7-10 mm. Antenna with 31-36 flagellomeres; 1st flagellomere 5.2-6.7× longer than wide and 0.65-0.67× longer than eye; preapical flagellomere square. Temple moderately to strongly and roundly narrowed behind eye, dorsally 0.3-0.4× as long as eye. OED 1.2-1.3× and OOD 2.0× ocellar diameter. Frons with scattered or rather dense punctures, moderately impressed medially. Face with scattered to dense punctures. Clypeus 2.0-2.1× wider than long, with scattered punctures. MI 0.6-0.8. Mandible with ventral lamella rather slender and long, lower tooth small, 0.5× as long as upper one. Genal carina reaching mandibular base.

Mesosoma 1.5-1.55× longer than high. Mesoscutum, mesopleuron and metapleuron with coarse rather dense punctures. Frontoventral edge of pronotum moderately curved; lateral pronotal groove partly smooth. Speculum punctate. Epicnemial carina low, without distinct carina on transversal part, low carina on pleural part present. Propodeum with rather dense punctures, apical transversal carina complete. Hind leg stout, hind femur 4.1-4.4× longer than wide. Hind metatarsus 0.65-0.70× as long as hind femur. Hind tarsomeres with strong apical bristles. 2nd hind tarsomere 0.85-0.95× as long as 3rd hind tarsomere. Hind claw ± pectinate, moderately curved apically. Areolet with long stalk, stalk almost as long as areolet; 2nd recurrent vein distinctly distal to its middle. Nervulus interstitial or slightly postfurcal by 1× its width. Hairs on basal cell much shorter than their intervals.

1st tergite 1.5-1.9× longer than wide, with scattered to rather dense punctures. 2nd tergite 1.1-1.4× longer than wide, with fine scattered setiferous punctures. 3rd tergite 1.1-1.5× longer than wide, with scattered to rather dense but superficial punctures. Ovipositor 1.2-1.4× longer than fore wing, 1.5-1.75× longer than metasoma and 2.9-3.4× longer than hind tibia.

Color: Mainly cream-yellow. Antenna reddish, basal flagellomeres ± blackish. Mandibular teeth, sometimes median stripe on frons, stemmaticum, occiput partly, three stripes on mesoscutum, scutoscuteellar groove, sometimes small spot on mesopleuron,

two paramedian spots on propodeum and sometimes stripe on dorsal metapleuron black. Tergites red, with wide basal and apical yellow bands; basal tergites sometimes with v-shaped blackish basal spots. Legs yellow; all femora and sometimes mid and hind trochanters and/or mid and hind tibiae with dorsal brown stripes; tips of hind tibia and hind tarsomeres sometimes brownish. Fore wing with subapical brown spot; pterostigma brownish, yellow proximally.

♂: Body length 11 mm. Antenna with 36 flagellomeres; 1st flagellomere 5.1× longer than wide and 0.65× as long as eye. Temple shortly parallel behind eye, moderately and roundly narrowed apically, dorsally 0.4× as long as eye. OED 1.1× ocellar diameter. MI 0.65. Hind femur 4.5× longer than wide; hind metatarsus 0.7× as long as hind femur; 2nd hind tarsomere about as long as 3rd one.

1st tergite 1.75× longer than wide, with rather dense punctures; 2nd tergite 1.2× longer than wide, with dense punctures; 3rd tergite 1.2× longer than wide, with dense but superficial punctures.

Color: As in ♀, but with black stripes on margins of pronotum, mesopleuron and metapleuron. Epicnemium behind fore coxa blackish.

Hosts unknown.

Remark: Although I was not able to study the type of *S. crassitarsis*, the high quality photos of the holotype kindly sent by D. Kasparyan together with the similarities of coloration and form hind tarsus convinced me to synonymize this species with *S. pallidator*. The taxon seems to be rather widespread in the Southern Palaearctic region.

***Syzeuctus decoratus* (COSTA, 1890) (Figs 33, 65, 108)**

Original: *Lissonota decorata* COSTA, 1890: 17

syn. *Lissonota formosa* TOSQUINET, 1900: 162-165, preoccupied by BRIDGMAN, 1887, synonymized by AUBERT 1967: 69.

Holotype: (♀) "type; Russia Sarepta 1880 B.; collection Dr. J. Tosquinet; *Lissonota formosa* TOSQ. dét. J. Tosquinet" (Bruxelles), type studied.

syn. *Lissonota hortobagyensis* KISS, 1926b: 245-248, synonymized by BAJARI 1959.

Lectotype: (♀) "Hortobágy Szilády, 923.VII.4; Typus *Lissonota hortobagyensis* n.sp." (Budapest), type not studied.

Studied material: 2♀♀ 3♂♂, Kyrgyzstan*, Russia (Wolgograd).

Description: ♀: Body length 10-11 mm. Antenna with 36 flagellomeres; 1st flagellomere 3.8× longer than wide and 0.55× as long as eye; preapical flagellomere 1.2× longer than wide. Temple distinctly narrowed or shortly parallel behind eye, strongly and roundly narrowed apically, dorsally c. 0.4-0.5× as wide as eye. OED 1.1-1.2× and OOD 1.5× ocellar diameter. Frons with scattered or dense punctures, sides slightly swollen, with moderate median impression. Clypeus moderately convex, 1.5-1.6× wider than long, with scattered punctures. MI 0.75-0.9. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Frontoventral edge of pronotum moderately or sharply curved, lateral pronotal groove smooth ventrally. Epicnemial carina low, without distinct lamella at transversal part. Speculum punctate. Apical transversal carina of propodeum complete and strong. Hind femur 5.5-5.7× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.3-1.4× longer than 3rd one. Hind claw long,

pectinate, moderately bent apically. Areolet stalked, 2nd recurrent vein slightly proximal or distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell shorter than their distance. Hind wing with 9 distal hamuli.

Metasoma rather stout. 1st tergite 1.4-1.5× longer than wide, with dense punctures. 2nd tergite 1.05× wider than long, with dense punctures. 3rd tergite 1.0-1.05× wider than long, with ± superficial punctures. Spiracles of 1st to 3rd tergites slightly protruding. Ovipositor 0.9× as long as fore wing, 1.0-1.2× as long as metasoma and 2.0-2.1× longer than hind tibia.

Color: Head largely yellow. Scape brownish, sometimes yellow ventrally; Antenna reddish, basal two flagellomeres ± black. Anterior tentorial pit, median stripes of face and frons, stemmaticum and occiput black. Mesosoma largely yellow; three stripes on mesoscutum, three spots on mesopleuron, stripe on mesosternum, spots on metapleuron and two paramedian spots on propodeum black. Metasoma mainly red; 1st to 5th tergites with apical cream-yellow bands, sometimes 1st tergite with basolateral yellow spot. Fore and mid coxae mainly yellow, fore and mid trochanters brown, yellow frontally, hind coxa yellow dorsally and red ventrally; hind trochanter brown, hind trochantellus yellow. Femora, tibiae and tarsi red; fore and mid tibiae yellow frontally, hind tibia yellow in basal 0.15. Wings hyaline; pterostigma ochreous, yellowish proximally.

♂: Body length 9-9.5 mm. Antenna with 35-36 flagellomeres, 1st flagellomere 4.4× longer than wide and 0.55× as long as eye. Temple shortly parallel behind eye and moderately narrowed apically. OED 1.6× ocellar diameter. Frons slightly swollen laterally and moderately impressed medially. Face densely punctate. Clypeus 1.8× wider than long, with scattered punctures. MI 1.0. Mandible with ventral lamella; lower tooth c. 0.5× as long as upper one. Genal carina reaching mandibular base.

Frontoventral edge of pronotum moderately curved, lateral pronotal groove smooth. Epicnemial carina low, with narrow lamella opposite to ventral edge of pronotum. Speculum punctate. Apical transversal carina of propodeum complete, area petiolaris rugose. Hind femur 4.8-5.0× longer than wide. Hind metatarsus 0.75-0.8× as long as hind femur. 2nd hind tarsomere 1.2× longer than 3rd one. Hind claw densely pectinate, moderately curved apically. Areolet stalked, 2nd recurrent vein distal to the middle. Nervulus postfurcal by 1-2× its width.

1st tergite 1.45-1.55× longer than wide, with coarse and dense punctures. 2nd tergite 1.0× as long as wide, with dense punctures. 3rd tergite about as long as wide, with dense punctures. Spiracles of 2nd and 3rd tergites slightly protruding laterally.

Color: Black. Yellow are palps, mandible except teeth, clypeus, face except central black stripe, malar space, gena and wide orbits. Mesosoma with extended yellow coloration: pronotum largely, large spots on mesopleuron and metapleuron, upper division of metapleuron, tegula, subtegular ridge, scutellum and postscutellum, four confluent stripes on mesoscutum, triangular central spots and anterolateral stripes on propodeum. 1st tergite blackish, following tergites ± red; 1st to 3rd/5th tergites with wide apical yellow bands, 1st tergite with subbasal yellow spot. Fore and mid coxae and trochanters mainly yellow; hind coxa yellow dorsally and apicoventrally; hind trochanter blackish with yellow apical margin, hind trochantellus yellow. Fore and mid legs yellow, femora with dorsal blackish stripes; hind femur red, with external yellow stripe; hind tibia yellow, reddish internally, hind tarsus ± brown. Wings hyaline, pterostigma brown, yellow in proximal third.

Hosts unknown.

Remark: The description of ♂♂ bases on the material from Kyrgyzstan here, the separation from ♂♂ of *S. maculipennis* is not clear yet and needs more material for comparison.

***Syzeuctus dusmeti* SEYRIG, 1928 (Figs 55, 66, 109)**

Original: *Syzeuctus dusmeti* SEYRIG, 1928: 382

Lectotype: (♀) "Sena (Huesca), 1922 Andreu" (Madrid), type not studied.

Studied material: 2♀♀ 1♂; Spain.

Description: ♀: Body length 9.5-10 mm. Antenna with 38-40 flagellomeres; 1st flagellomere 4.2× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.4× as long as eye. OED 1.2× ocellar diameter. Frons coarsely punctate, with moderately swollen sides, strongly impressed medially. Clypeus c. 2× wider than long, slightly convex, with scattered punctures, apical margin rounded. MI 0.7. Mandible with strong ventral lamella. Genal carina low, reaching mandibular base.

Side of pronotum coarsely and densely punctate. Speculum partly smooth. Epicnemial carina low or slightly elevated, with distinct but not dentiform carina on transversal part. Apical transversal carina of propodeum shortly present laterally, widely absent medially. Hind femur 5.4× longer than wide. Hind claw with few small basal teeth. Areolet stalked; 2nd recurrent vein strongly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell shorter than their intervals.

1st tergite c. 2.0× longer than wide, with very scattered fine setiferous punctures, with basolateral lamelliform extension, spiracle not protruding. 2nd tergite c. 1.1× longer than wide, with rather dense punctures. 3rd tergite 1.1× longer than wide, with dense punctures and fine granulation. Ovipositor 0.8× as long as fore wing, about as long as metasoma and 2.1× longer than hind tibia.

Color: Black. Antenna brownish. Palps, mandible, clypeus (partly reddish-yellow), face except black central stripe, gena and wide orbits yellow. Mesosoma with rich yellow coloration. 1st and 2nd tergites black, with yellow antero-lateral spots and wide yellow apical bands. 3rd tergite black, ± red apically; following tergites reddish. 3rd to 4th/5th tergites with apical yellow bands. Fore and mid legs including coxae and trochanters yellowish, with brownish dorsal stripes. Hind coxa and trochanter black; hind coxa yellow dorsally; hind trochantellus yellow; hind femur and tibia reddish, hind tarsus brownish. Wings hyaline, fore wing with apical brown spot, pterostigma brown.

♂: Body length 10-10.5 mm. Antenna with 44 flagellomeres; 1st flagellomere 4.8× longer than wide. Head with very coarse punctures. Temple shortly parallel behind eye, distinctly and roundly narrowed apically; dorsally 0.45× as long as eye. OED 1.5× ocellar diameter. Frons distinctly swollen laterally and impressed medially. Clypeus 1.8× wider than long. MI 0.85. Genal carina reaching hypostomal carina at mandibular base.

Mesosoma with very coarse punctures. Pronotal groove with almost smooth surface. Speculum punctate. Epicnemial carina low, with ± distinct lamella on transversal part. Apical transversal carina shortly present laterally, widely absent medially. Hind femur 5.5-6.0× longer than wide. Hind claw with long basal teeth. Areolet stalked; 2nd recurrent vein strongly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell shorter than their intervals.

1st tergite 2.3-2.5× longer than wide, with coarse rather dense punctures. 2nd tergite 1.4-

1.7× longer than wide, with coarse dense punctures. 3rd tergite 1.25-1.3× longer than wide, with dense but superficial punctures. 1st/3rd to 6th/7th tergites with strongly enlarged reniform tergal spiracles.

Color: Similar to ♀. Antenna reddish, slightly darkened distally. Head yellow; frons medially, stemmaticum and occiput black. 1st to 3rd/4th tergites black, with wide yellow apical bands, sometimes 1st tergite with basal yellow band. Following tergites reddish, 4th tergite with wide, 5th tergite with narrow yellow apical bands. Coxae and trochanters yellow; hind coxa with black spot; hind trochanter reddish or brown. Legs reddish. Wings hyaline, fore wing with apical brown spot, pterostigma brown.

Hosts: Phycitinae spec. (Lep. Pyralidae) (Edinburgh), *Bazaria ruscionella* RAGONOT, 1887 (Lep. Pyralidae) (Edinburgh).

***Syzeuctus exsculptus* (FONSCOLOMBE, 1854) (Figs 67, 110)**

O r i g i n a l : *Lissonota exsculpta* FONSCOLOMBE, 1854: 509

H o l o t y p e : (♀) "18. *L. exsculpta* nob." (Paris), type not studied.

syn. *Lissonota pubescens* FONSCOLOMBE, 1854: 514, synonymized by AUBERT 1978: 128

H o l o t y p e : (♂) "26. *L. pubescens* nob." (Paris), type not studied.

syn. nov. *Lissonota puberula* KRIECHBAUMER, 1895: 263-264

H o l o t y p e : (♂) (Bern), type not studied.

syn. nov. *Syzeuctus schmiedeknechti* BRAUNS, 1901: 182, synonymized by AUBERT 1969: 87.

L e c t o t y p e : (♀) "Brauns det.; 9658; 17.VI.89 Berisal" (Bern), not studied.

P a r a l e c t o t y p e : (♂) "17.VI.89 Berisal" (Berlin), studied.

S t u d i e d m a t e r i a l : 41♀♀, 40♂♂; Bulgaria*, France, Mongolia*, Morocco*, Spain, Switzerland, Turkey.

D e s c r i p t i o n : ♀: Body length 9-12 mm. Antenna with 40-45 flagellomeres; 1st flagellomere 4.0-5.0× longer than wide and 0.52-0.65× as long as eye; preapical flagellomere c. 1.2× longer than wide. Temple shortly parallel or slightly narrowed behind eye, moderately and roundly narrowed apically, dorsally 0.4-0.45× as long as eye. Ocelli small, OED 2.0-2.6× ocellar diameter. Frons punctate, basally often smooth, slightly impressed medially. Clypeus 1.5-1.8× wider than long, apex rounded. MI 0.5-0.7. Genal carina reaching mandibular base.

Mesosoma 1.3-1.35× longer than high. Ventrofrontal edge of pronotum moderately curved; lateral pronotal groove rugose-punctate or with fine striae. Epicnemial carina often moderately elevated, with ± dentiform or sometimes low lamella at transversal part. Propodeum with complete apical transversal carina, carina sometimes shortly indistinct medially. Hind femur 5.0-5.5× longer than wide. Hind metatarsus c. 0.6× as long as hind femur. 2nd hind tarsomere c. 1.5× longer than 3rd one. Hind claw completely pectinate, moderately curved apically. Areolet stalked; 2nd recurrent vein in or slightly proximal or distal to its middle. Nervulus interstitial or slightly postfurcal by 1× its width. Hairs of basal cell as long as their intervals. Hind wing with 8-9 distal hamuli.

Metasoma rather stout. 1st tergite 1.55-1.9× longer than wide, with scattered or rather dense, coarse punctures laterally. 2nd tergite 0.9-1.1× as long as wide, with rather dense coarse punctures. 3rd tergite 0.9-1.1× as long as wide, with dense but sometimes superficial punctures. Ovipositor sheath 1.0-1.4× longer than fore wing, 1.2-1.5× longer than metasoma and 2.3-2.9× longer than hind tibia.

Color: Black. Outer orbit up to vertex with narrow yellow stripe. Clypeus often ±

reddish. Mesosoma black. 1st to 3rd tergites red; sometimes 1st tergite black basally and 4th tergites red basally. Coxae and trochanters black; legs black, with \pm extended yellow frontal stripes on fore and mid femora, tibiae and tarsi; or fore and mid legs and hind femur reddish-brown. Wings \pm infusate, sometimes with weak brown apical spot; pterostigma dark brown.

♂: Body length 8.5-12 mm. Antenna with 40-45 flagellomeres; 1st flagellomere 4.5 \times longer than wide; preapical flagellomere 1.0-1.1 \times longer than wide. Head and mesosoma with long erected hairs. Temple shortly parallel behind eye, slightly and roundly narrowed apically, dorsally 0.5-0.6 \times as long as eye. OED 1.7-2.5 \times ocellar diameter. MI 0.7. Genal carina reaching mandibular base.

Mesosoma with long erected hairs. Lateral pronotal groove rugose or punctate. Speculum punctate. Epicnemial carina moderately elevated, with dentiform lamella on transversal part. Apical transversal carina complete. Hind femur 4.4-5.5 \times (in one ♂ from Morocco 6.3 \times) longer than wide. Hind metatarsus 0.7 \times as long as hind femur. 2nd hind tarsomere 1.35 \times longer than 3rd one. Hind claw with basal teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus interstitial to postfurcal by 2 \times its width. Hairs on basal cell as long as their intervals. Hind wing with 8 distal hamuli.

1st tergite 1.5-1.9 \times longer than wide, with scattered to rather dense punctures. 2nd tergite 1.0-1.1 \times wider than long, with dense punctures. 3rd tergite 1.0-1.2 \times wider than long, with dense punctures.

Color: Black. Clypeus blackish or reddish. Outer orbit and sometimes vertex narrowly yellow. 1st tergite black, sometimes red apically; 2nd to 4th/5th tergites completely red. Coxae and trochanters black. Legs otherwise blackish or \pm reddish; fore and mid femora blackish basally and yellowish apically, fore and mid tibiae and tarsi yellowish frontally; hind femur reddish, brown or black; hind tibia often with yellow base, sometimes with external yellow stripe; hind metatarsus and 2nd hind tarsomere \pm yellow basally. Wings without brown spots, pterostigma brown.

One ♂ from Morocco differs by: slenderer hind femur (6.3 \times longer than wide), red 5th tergite and completely black hind tarsus.

R e m a r k : In a long series of ♀♀ and ♂♂ from Monetier-les Bains/France collected by R. HINZ (material in ZSM, Munich), hind femora of the specimens were red or black without other differences of structure or coloration. AUBERT (1978: 132) noted that *Lissonota puberula* differs from *S. exsculptus* by a stouter hind femur and yellow-red clypeus. Both features are variable in this species. I therefore synonymize both species here.

***Syzeuctus flagellator* nov.sp. (Figs 2, 13, 31, 54, 68, 111)**

H o l o t y p e : (♀) "19.VII.1975 Chantemerle/F; E 063600 N 445420" (Munich).

P a r a t y p e s : (♀) labeled as on the holotype (Munich); (♀) "21.VII.1975 Chantemerle/F; E 063600 N 445420" (Munich); (♀ and ♂) "Wallis, Berisal, 28 VI 1919 Steck" (Basel); (♀ and ♂) "17.VI.89 Berisal" (Berlin); (♀) "20.VI.89, Simplon" (Berlin); (♀) "Sierra Schweiz" (Berlin); (♀) "18/132; Frst; *petiolaris* Grv. " (Berlin); (♀) "Berlin Thurau" (Berlin); (♂) "Usbekistan, Vil. Samarkand, Gerafschan-Geb., Aman-Kuten-Paß, 39°17'54"N/66°54'20"E/GPS, 1700 m, 07.-08.06.1997, H. & R. Rausch leg. (97/17)" (Linz).

S t u d i e d m a t e r i a l : 10♀♀, 3♂♂; France*, Germany*, Switzerland*, Uzbekistan*.

D e s c r i p t i o n : ♀: Body length 7.5-9.5 mm. Antenna with 31-33 flagellomeres; 1st

flagellomere 4.2-4.7× longer than wide and 0.63-0.65× as long as eye; preapical flagellomere almost square or slightly longer than wide. Head covered with rather long hairs. Temple strongly and roundly narrowed behind eye, 0.35-0.55× as wide as eye. OED 1.6-1.7× and OOL 2.1× ocellar diameter. Frons with slightly protruding sides, sometimes with ± distinct sublateral tubercles, centrally impressed, with scattered punctures, smooth ventrally. Face protruding centrally. Clypeus c. 1.6-1.7× wider than long, with rounded apex. MI 0.8-0.9. Gena partly granulate and matte. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Pronotum punctate, lateral pronotal groove ± rugose ventrally. Epicnemial carina moderately elevated, with ± distinct lamella or tooth at transversal part. Propodeum with apical transversal carina complete or shortly obsolete medially. Hind femur 4.8-5.1× longer than wide; hind tibia with numerous external spines. Hind metatarsus 0.68-0.70× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Hind claw with long teeth in basal 2/3, moderately curved apically. Areolet stalked, 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell as long as their intervals. Hind wing with 9 distal hamuli.

1st tergite 1.4-1.6× longer than wide, with very scattered fine setiferous punctures laterally. 2nd tergite 1.15-1.2× wider than long; with scattered or rather dense punctures. 3rd tergite 1.1-1.2× wider than long, with dense punctures. Spiracles of 1st to 3rd tergites protruding. Ovipositor 1.2-1.25× longer than fore wing, 1.45-1.7× longer than metasoma and 2.9-3.0× longer than hind tibia.

Color: Black. Clypeus in apical 1/3-2/3, narrow inner and outer orbits yellow. Mesosoma black. 1st tergite black basally, red apically, sometimes completely black. 2nd and 3rd tergites red, sometimes 4th tergite reddish basally. Coxae and trochanters black; legs otherwise reddish-yellow; hind tibia in apical 0.5-0.7 and hind tarsus black. Wings without dark spots, pterostigma ochreous or brownish.

♂: Body length 9.5-11 mm. Antenna with 33-34 flagellomeres; 1st flagellomere 4.7-5.0× longer than wide and 0.65-0.74× as long as eye; preapical flagellomere 1.4× longer than wide. Head covered with rather long erected hairs. Temple strongly and roundly narrowed behind eye. OED 1.4-1.7× and OOD 2.0× ocellar diameter. Frons punctate, usually with two blunt sublateral crests. Clypeus 1.6-1.9× wider than long. MI 0.9-1.0. Lateral pronotal groove rugose and punctate. Epicnemial carina low, with distinct lamella or tooth at transversal part. Apical transversal carina of propodeum complete. Hind femur 4.5-5.2× longer than wide. Hind metatarsus 0.65-0.75× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Hind claw with basal or complete pectination. Areolet stalked, 2nd recurrent vein in or distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell as long as their intervals. Hind wing with 9-10 distal hamuli.

1st tergite 1.5-1.75× longer than wide, with rather dense punctures laterally. 2nd tergite 1.1-1.2× wider than long, with dense punctures. 3rd tergite 1.05× wider than long, with dense but rather superficial punctures.

Color: Black. Antenna reddish, brown dorsally. Palps, mandible except teeth, clypeus, face, malar space, inner and outer orbits, scape and pedicel ventrally, tegula, fore and mid coxae and trochanters frontally, and all trochantelli yellow. Legs except coxae and trochanters reddish; fore and mid legs yellowish frontally, hind tibia yellow, infusate in apical 0.3-0.5. Hind tarsus blackish or (in ♂ from Uzbekistan) yellowish with black tips.

2nd and 3rd tergites red, 1st tergite narrowly at apex and 4th tergite basally red. Wings hyaline, pterostigma brownish.

Hosts unknown.

Remark: This new taxon is closely related to *S. caper* (SEYRIG), but differs by: Ovipositor longer, frons moderately swollen laterally or with sublateral tubercles, but without distinct horns, red color of metasoma less extended; in ♂♂ face completely yellow.

Syzeuctus flavator nov.sp. (Figs 4, 11, 53)

H o l o t y p e : (♂) "Mongolia, 80 km W Ulaanbaatar, dunes, 1230 m, 17.8.1007, M. Halada lg." (Linz).

S t u d i e d m a t e r i a l : 1♂; Mongolia*.

Description: ♂: Body length 7.3 mm. Antenna with 35 flagellomeres; 1st flagellomere 3.7× longer than wide and 0.54× as long as eye; preapical flagellomere 1.3× longer than wide. Head covered with short hairs. Temple shortly parallel behind eye and roundly narrowed apically, dorsally 0.45× as long as eye. OED 1.6× and OOD 2.1× ocellar diameter. Frons punctate, slightly swollen laterally and slightly impressed medially. Clypeus 2.0× wider than long. MI 0.8. Genal carina reaching mandibular base.

Ventrofrontal edge of pronotum strongly curved, lateral pronotal groove smooth. Epicnemial carina low, without carina on transversal part. Propodeum with dense, coarse punctures; apical transversal carina complete. Hind femur 4.6× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.2× longer than 3rd one. Hind claw with few long teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell much shorter than their intervals. Hind wing with 9 distal hamuli.

1st tergite 1.25× longer than wide, with scattered punctures laterally. 2nd tergite 1.1× wider than long, with dense punctures. 3rd tergite as long as wide, with dense but rather superficial punctures.

Color: Yellow. Antenna brown basally, reddish-brown in apical 2/3. Tergites yellow, with diffuse narrow reddish stripes basally and laterally. Legs yellow; hind femur ventrally and hind tibia internally reddish. Wings hyaline; pterostigma yellow, paler proximally.

♀ and hosts unknown.

Remark: This new taxon is characterized by its small size, almost complete yellow coloration and stout metasoma.

Syzeuctus flavomaculatus nov.sp. (Figs 32, 69, 112)

H o l o t y p e : (♀) "Mongolia, Chovd aimak, 10 km SSW von Somon Bulgan, 1200 m, exp. Z. Kabzab, 1966; Nr. 632, 4-6.VII.1966" (Budapest).

S t u d i e d m a t e r i a l : 1♀; Mongolia*.

Description: ♀: Body length 10.5 mm. Antenna with 37 flagellomeres; 1st flagellomere 4.2× longer than wide and 0.55× as long as eye; preapical flagellomere 1.1× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.35× as long as eye. OED 1.4× and OOD 1.9× ocellar diameter. Frons coarsely punctate, with

moderately swollen sides and strongly impressed center. Clypeus $2.0\times$ wider than long, slightly convex, with scattered punctures, apical margin rounded. MI 0.85. Genal carina reaching mandibular base.

Lateral pronotal groove smooth ventrally. Speculum partly smooth. Epicnemial carina low, with low carina on pleural part and with distinct low lamella on transversal part. Apical transversal carina of propodeum shortly present laterally, widely absent medially. Hind femur $5.5\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.5\times$ longer than 3rd one. Hind claw completely pectinate, moderately bent apically. Areolet with long stalk; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Basal cell densely pilose, hairs longer than their intervals. Hind wing with 8 distal hamuli.

Metasoma rather slender; 1st tergite $1.95\times$ longer than wide, with very scattered setiferous punctures, shining. 2nd tergite $1.1\times$ longer than wide, with very scattered fine setiferous punctures. 3rd tergite $1.0\times$ as long as wide, with scattered fine punctures. Ovipositor $1.2\times$ longer than fore wing, $1.5\times$ longer than metasoma and $2.8\times$ longer than hind tibia.

Color: Black. Flagellum reddish-brown, basal flagellomere black. Head yellow; mandibular teeth, short median stripe on face, narrow median frons, stemmaticum and occiput black. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, posterior margins of pronotum and mesopleuron (widened at speculum), entire mesosternum, anterior and ventral margins of metapleuron and two oblique paramedian stripes on propodeum black. Tergites black; 1st to 3rd tergites with basal yellow bands; 1st to 5th tergites with wide apical yellow bands. Fore and mid coxae black basally, yellow apically; fore and mid legs otherwise yellow. Hind coxa black, yellow dorsally; hind trochanter black, hind trochantellus yellow; hind femur red, narrow yellow apically; hind tibia reddish-yellow; hind tarsus reddish-brown. Fore wing with apical brown spot, pterostigma brownish.

♂ unknown.

***Syzeuctus frontator* nov.sp. (Figs 5, 14, 34, 70, 113)**

H o l o t y p e : (♀) "Turkey, N of Sivas, 8.7.2000 leg. M. Halada" (Linz).

P a r a t y p e s : (2♀♂♂) "Syria occ. 95 Bloudan 16.5. K. Denes jun. lgt." (Linz); (♀) "TR, Sirkans, Oltu, Erzurum, 25.6.96" (Munich).

S t u d i e d m a t e r i a l : 4♀♀, 1♂; Syria* and Turkey*.

D e s c r i p t i o n : ♀: Body length 10-12 mm. Antenna with 43-45 flagellomeres; 1st flagellomere $4.1-4.2\times$ longer than wide and $0.56\times$ as long as eye; preapical flagellomere $0.9\times$ as long as wide. Temple strongly and roundly narrowed behind eye, dorsally c. $0.6\times$ as long as eye. OED $1.8\times$ and OOD $1.9\times$ ocellar diameter. Vertex smooth, with very scattered punctures. Frons moderately impressed medially, with dense punctures. Face densely punctate, inner eye margins slightly convergent ventrally. Clypeus c. $1.6\times$ wider than long, with very few setiferous punctures, apical margin rounded. MI 0.55-0.65. Mandible with two teeth, lower tooth smaller than upper one. Genal carina reaching mandibular base.

Mesoscutum and mesopleuron with rather dense punctures. Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth. Speculum partly smooth.

Epicnemial carina low, with \pm distinct dentiform lamella on transversal part. Propodeum coarsely and densely punctate, with strong apical transversal carina. Hind femur $5.9\times$ longer than wide. Hind metatarsus $0.65\times$ as long as hind femur. 2nd hind tarsomere $1.4\times$ longer than 3rd one. Hind claw with long teeth. Areolet stalked, 2nd recurrent vein in its middle. Nervulus postfurcal by $1-2\times$ its width. Hairs of basal cell slightly shorter than or as long as their intervals. Hind wing with 9 distal hamuli.

Metasoma slender. 1st tergite $2.0-2.1\times$ longer than wide, almost smooth and strongly shining. 2nd tergite $1.1-1.35\times$ longer than wide, with fine very scattered punctures, shining. 3rd tergite $1.05-1.3\times$ longer than wide, with fine dense but superficial punctures, shining. Spiracles of 1st to 3rd tergites slightly protruding laterally. Ovipositor $1.1-1.2\times$ longer than fore wing, $1.25-1.45\times$ longer than metasoma, $2.2-2.7\times$ longer than hind tibia.

Color: Black. Clypeus, sometimes narrow stripe facial orbit, strongly widened spot on frontal orbit, narrow stripe on outer orbit, wing base, spot on fore coxa and trochanter, sometimes spots on mid and hind trochanters and trochantelli yellow. Mesosoma black or (in Syrian specimens) with yellow spots on upper pronotal margin, anterolateral on mesoscutum, apical spot on scutellum and postscutellum and central spot on propodeum. Fore and mid legs yellow, sometimes fore femur with brown stripe dorsally. Hind femur black, with yellow apical margin or yellow dorsal stripe; hind tibia blackish internally, \pm yellowish externally. Mid and hind tarsi \pm blackish. Metasoma completely black or (in Syrian specimens) 1st to 4th tergites with narrow apical yellow bands. Wings hyaline or with weak brown apical spot (in Syrian specimens), pterostigma dark brown.

♂: Body length 9 mm. Antenna with 43 flagellomeres; 1st flagellomere $4.5\times$ longer than wide and $0.67\times$ as long as eye. Temple moderately and roundly narrowed behind eye, dorsally c. $0.6\times$ as long as eye. OED $1.4\times$ ocellar diameter. Face densely punctate, inner eye margins slightly convergent ventrally. Clypeus c. $1.6\times$ wider than long, with very few setiferous punctures, apical margin rounded. MI 0.65. Genal carina reaching mandibular base.

Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina low, with \pm distinct dentiform lamella on transversal part. Propodeum with strong apical transversal carina. Hind femur $6.2\times$ longer than wide. 2nd hind tarsomere $1.4\times$ longer than 3rd one. Hind claw with long teeth. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by $1-2\times$ its width.

Metasoma slender. 1st tergite $2.2\times$ longer than wide, almost smooth and strongly shining. 2nd tergite $1.35\times$ longer than wide, with fine very scattered punctures, shining. 3rd tergite $1.2\times$ longer than wide, with fine superficial punctures, shining.

Color: Black. Mandible except teeth, clypeus, face, malar space, complete orbits (frontal orbit strongly widened) yellow. Mesosoma black; collare, side of pronotum largely, hook-shaped antero-lateral spots on mesoscutum (confluent centrally), scutellum except antero-median black spot, postscutellum, tegula, spot on subtegular ridge, large stripe on mesopleuron, two spots on metapleuron and large triangular spot on posterior half of propodeum yellow. Metasoma black; 1st tergite subbasally and 1st to 4th tergites apically with narrow yellow bands. Fore and mid legs yellow; mid tarsus brown in distal 2/3. Hind leg black; hind coxa yellow dorsally; hind femur with dorsal yellow stripe; hind tibia yellow externally. Fore wing with weak brown apical spot, pterostigma dark brown.

R e m a r k : This new taxon differs from *S. vigil* (TOSQUINET) by: Epicnemial carina

with dentiform lamella on transversal part, basal tergites slenderer and with scattered fine punctures, hind femur slenderer.

***Syzeuctus fuscator* (PANZER, 1809) (Figs 71, 114)**

O r i g i n a l : *Ophion fuscator* PANZER, 1809: vol 102, fig. 22. Type lost, interpretation according to HORSTMANN 1982: 236.

syn. *Syzeuctus buculus* SEYRIG, 1927, synonymized by HORSTMANN 1999: 53.

L e c t o t y p e : (♀) "Htes Alpes 5.26-Cleu" (Munich), type studied.

syn. *Syzeuctus hispanicus* HEDWIG, 1939, synonymized by HORSTMANN 1999: 53. Holotype from Valencia/Spain lost.

S t u d i e d m a t e r i a l : 51♀♀, 51♂♂; Czech Republic (Moravia)*, France, Germany, Hungary, Italy*, Mallorca, Morocco, Portugal, Sardinia*, Sicily*, Spain, Switzerland*, United Kingdom.

D e s c r i p t i o n : ♀: Body length 10-12 mm. Antenna with 33-39 flagellomeres; 1st flagellomere 4.6-5.0× longer than wide and 0.55× as long as eye; preapical flagellomere about square. Head 2.2× wider than long. Temple strongly and roundly narrowed behind eye, dorsally 0.35× as long as eye. OED 1.6-2.2× ocellar diameter. Frons ± impressed medially, slightly or strongly swollen laterally, with dense punctures. Face densely punctate, centrally protruding, inner eye margins slightly convergent ventrally. Clypeus c. 2× wider than long, with rather dense punctures, apical margin rounded. MI 0.5-0.7. Genal carina reaching mandibular base.

Mesosoma densely punctate, 1.45× longer than high. Frontoventral edge of pronotum moderately to strongly curved; lateral pronotal groove smooth. Speculum punctate. Epicnemial carina usually moderately elevated ventrally, with dentiform lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 4.8-6.0× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd one. Hind claw with short basal teeth, moderately bent apically. Areolet stalked, 2nd recurrent vein in or slightly distal to its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 9-10 distal hamuli.

1st tergite 1.5-2.1× longer than wide, with scattered lateral punctures. 2nd tergite 0.9-1.25× as long as wide, with dense punctures. 3rd tergite 0.9-1.2× as long as wide, densely punctate. Spiracles of 1st to 3rd tergites ± protruding laterally. Ovipositor 1.0-1.4× as long as fore wing, 1.1-1.4× longer than metasoma and 2.1-3.0× longer than hind tibia.

Color: Black. Clypeus, sometimes mandibular base, wider inner and narrow outer orbits, frontal spot on upper margin of pronotum, anterolateral and central spots on mesoscutum, spot on mesopleuron, tegula, spot on subtegular ridge, scutellum except anteromedian black spot, postscutellum and apical band on propodeum yellow. Metasoma black; 1st tergite often with subbasal yellow band; sometimes 2nd and 3rd tergites with basal yellow bands; 1st to 3rd tergites with wide apical yellow bands (sometimes also 4th tergite). Coxae and mid and hind trochanters black, sometimes fore coxa with yellow spot; fore and mid legs yellow or reddish-yellow; hind femur black, brown or reddish-brown (but always darker than mid femur), often yellow apically; hind tibia yellow, brownish or black in apical third, hind tarsus ± reddish or brownish, sometimes (in a specimen from Morocco) hind metatarsus with central yellow ring. Wings with apical brown stripes (often weak); pterostigma reddish-brown, sometimes paler proximally.

♂: Body length 8-12 mm. Antenna with 33-40 flagellomeres; 1st flagellomere 4.2× longer than wide. Temple moderately and roundly narrowed behind eye. OED 1.7-2.0× ocellar diameter. MI 0.6-0.8. Epicnemial carina slightly elevated, with dentiform lamella at transversal part. Apical transversal carina of propodeum complete. Hind femur 4.8-5.9× longer than wide. 1st tergite 1.9-2.0× longer than wide, with rather coarse but scattered punctures. 2nd tergite 1.0-1.2× longer than wide, with coarse rather dense punctures. 3rd tergite 1.0-1.2× longer than wide, with coarse dense but sometimes superficial punctures.

Color: Black. Face ± yellow, sometimes with black median stripes. Palps, mandible, clypeus, malar space, and wide orbits yellow. Sometimes scape, pedicel, and flagellum yellowish ventrally. Mesosoma with extended yellow coloration. 1st to 4th tergites with apical yellow bands (often also with yellow basal spots or bands), rarely 5th tergite with weak ochreous apical band. Fore and mid legs except black bases of coxae completely yellow. Hind femur dark brown or black, sometimes yellow in apical 0.1; hind tibia yellow, infuscate in apical 0.4; hind tarsus reddish-yellow or brown. Wings sometimes ± infuscate, with weak brown apical bands; pterostigma ochreous.

Hosts: *Epischnia asteris* (STAUDINGER, 1870) (Lep. Pyralidae) (Edinburgh), *Pempelia palumbella* (DENIS & SCHIFFERMÜLLER, 1775) (Lep. Pyralidae) (Edinburgh), *Oiceticoides febretta* (FONSCOLMBE, 1835) (Lep. Psychidae) (AUBERT 1978: 126).

***Syzeuctus heluanensis* SCHMIEDEKNECHT, 1900**

O r i g i n a l : *Syzeuctus heluanensis* SCHMIEDEKNECHT, 1900: 345

P a r a l e c t o t y p e : (♀) "F, Wadis E Heluan, 1897" (Rudolstadt), studied.

The lectotype (see OEHLKE & TOWNES 1969: 400) was not found in Berlin and is probably lost.

S t u d i e d m a t e r i a l : 1♀; Egypt.

D e s c r i p t i o n : ♀: Body length 9 mm. Antenna with 31 flagellomeres; 1st flagellomere 5.0× longer than wide and 0.56× as long as eye; preapical flagellomere 1.2× longer than wide. Temple parallel behind eye and slightly and roundly narrowed apically, dorsally 0.5× as wide as eye. OED 1.5× and OOD 2.0× ocellar diameter. Frons with scattered punctures, moderately swollen laterally and moderately impressed medially. Clypeus slightly convex, almost smooth, c. 2× wider than long. Lower mandibular tooth smaller than upper one. MI 0.6. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Frontoventral edge of pronotum strongly curved, lateral pronotal groove smooth ventrally. Epicnemial carina low, with low lamella at transversal part. Speculum partly smooth. Apical transversal carina of propodeum entirely absent. Hind femur 5.0× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.25× longer than 3rd one. Hind claw densely pectinate, moderately bent apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by 1× its width. Hairs of basal cell much shorter than their intervals. Hind wing with 9 distal hamuli.

1st tergite 1.6× longer than wide, with scattered punctures. 2nd tergite 1.2× wider than long, with dense punctures. 3rd tergite 1.2× wider than long, with rather dense punctures. Ovipositor 1.0× as long as fore wing, 1.38× longer than metasoma and 2.6× longer than hind tibia.

Color: Head and mesosoma mainly yellow. Flagellum reddish-yellow. Median stripe on frons, stripes between ocelli, occiput, pedicel and 1st flagellomere, three stripes on mesoscutum, large dorso-caudal spot on mesopleuron, metapleuron except yellow caudal spot and sides of propodeum blackish. 1st tergite yellow, with triangular blackish spot centrally; 2nd to 4th tergites reddish, with wide apical yellow bands; 5th to 7th tergites brown, with yellow apical bands. Legs including coxae and trochanters yellow; trochanters, femora and tibiae with dorsal brownish stripes. Fore wing with weak subapical brown spot; pterostigma brownish, yellow proximally.

♂ and hosts unknown.

***Syzeuctus hyalinipennis* SZÉLIGETI, 1901, new ♂ (Figs 35, 72)**

O r i g i n a l : *Syzeuctus hyalinipennis* SZÉLIGETI, 1901: 143

H o l o t y p e : (♀) "Transbaikalia Burdukova; Exp Zichy leg. Csiki" (Budapest), type studied.

S t u d i e d m a t e r i a l : 1♀ and 3 ♂♂; Mongolia and Far East Russia.

D e s c r i p t i o n : ♀: Body length 9.5 mm. Tips of flagella missing; 1st flagellomere 5.0× longer than wide and 0.62× as long as eye. Temple strongly and roundly narrowed behind eye, dorsally c. 0.4× as long as eye. OED 1.75× and OOD 2.1× ocellar diameter. Frons densely punctate, slightly impressed medially. Face densely punctate, inner eye margins slightly convergent ventrally. Clypeus 2.0× wider than long, almost smooth, apical margin rounded. MI 0.6. Upper mandibular tooth larger than lower one. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth. Speculum punctate. Epicnemial carina low, with blunt slightly denticular lamella on transversal part, low on pleural part. Propodeum with dense punctures, apical transversal carina complete. Hind femur slender, 5.9× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd hind tarsomere. Hind claw pectinate, moderately curved apically. Areolet stalked; 2nd recurrent vein slightly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell longer than their intervals. Hind wing with 8 distal hamuli.

Metasoma slender. 1st tergite 1.95× longer than wide, with dense, coarse punctures laterally. 2nd tergite 1.2× longer than wide, with dense, coarse punctures. 3rd tergite 1.15× longer than wide, with dense punctures. Spiracles of 1st to 3rd tergites slightly protruding laterally. Ovipositor 0.95× as long as fore wing, 1.3× longer than metasoma and 2.0× longer than hind tibia.

Color: Black. Clypeus reddish in apical 2/3. Narrow stripe of frontal orbits yellow, slightly widened dorsally. Mesosoma including tegula entirely black. 1st to 3rd tergite entirely and 4th tergite basally red. Coxae and trochanters black; fore and mid legs otherwise reddish; hind leg dark brown; hind tibia ochreous in basal 0.2. Fore wing hyaline; pterostigma brown.

♂ (Mongolia): Body length 9-10 mm. Head and mesosoma with rather long erected hairs. Antenna with 41 flagellomeres; 1st flagellomere 4.8× longer than wide and 0.62× as long as eye. OED 1.1-1.5× and OOD 1.6-2.2× ocellar diameter. Temple strongly and roundly narrowed behind eye, dorsally 0.6× as long as eye. Clypeus 1.5-1.6× wider than long, convex. MI 0.6-0.7. Lateral pronotal groove partly rugose. Epicnemial carina low, with ± distinct tooth opposite to ventral edge of pronotum. Speculum punctate. Apical

carina of propodeum strong and complete. Hind femur $5.3\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.3\times$ longer than 3rd one. Claws with basal teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell longer than their intervals. Hind wing with 8 distal hamuli.

1st tergite $1.8-2.1\times$ longer than wide, with scattered fine or rather coarse punctures. 2nd tergite $1.15-1.25\times$ longer than wide, with rather dense coarse punctures. 3rd tergite $1.1-1.2\times$ longer than wide, with dense punctures, sometimes superficial punctures. Spiracles of 1st to 3rd tergites protruding laterally.

Color: Black. Flagellum blackish. 1st tergite often red apically. 2nd to 4th tergites red. Palps, mandible except teeth, clypeus, face except black median stripe, inner and outer orbits, sometimes ventral spot on scape, tegula, sometimes apical spots on scutellum and postscutellum yellow. Fore and mid legs with coxae and trochanters yellow, mid coxa with black dorsal spot; hind femur reddish or black and yellow apically; hind tibia yellow, apical $1/2-2/3$ brown; mid and hind tarsi \pm brown. Wings hyaline, without brown apical spots, pterostigma brown.

Hosts unknown.

Remark: This species is closely related to *S. petiolaris* (GRAVENHORST). The ♀ differs from the European material of *S. petiolaris* by slenderer basal tergites and blackish hind legs. It is not clear yet, if these Mongolian ♂♂ (coll. Budapest) which were determined as "*S. apicalis*" by MOMOI and described here in detail, belong to the ♀ from Far East Russia. There seem to be several closely related taxa of the *petiolaris*-species group in Central and Eastern Asia; for a better knowledge, more material from these areas has to be studied in the future.

***Syzeuctus hyalinus* nov.sp. (Figs 3, 16, 36, 73, 116)**

H o l o t y p e : (♀) "MGL-Övörkhangay 12 km SW Arvaykheer, N 46°22' E 102°49', 1770 m, 3.VII.2004, J. Halada leg." (Linz).

P a r a t y p e s : (2♀♀) labeled as on the holotype (Linz, coll. Riedel).

S t u d i e d m a t e r i a l : 3♀♀; Mongolia*.

D e s c r i p t i o n : ♀: Body length 9-9.5 mm. Distal flagellomeres of all specimens broken off; 1st flagellomeres $3.8\times$ longer than wide and $0.54\times$ as long as eye. Temple moderately and roundly narrowed apically, dorsally c. $0.35\times$ as wide as eye. OED $1.5\times$ and OOD $2.2\times$ ocellar diameter. Frons densely punctate, with weak median impression. Face with dense punctures, finely granulate. Clypeus moderately convex, c. $1.7\times$ wider than long, with scattered punctures, shining. MI 0.9-1.0. Genal carina reaching mandibular base.

Mesosoma c. $1.55\times$ longer than high. Lateral pronotal groove smooth ventrally. Epicnemial carina low, with low but dentiform lamella on transversal part. Speculum punctate. Apical transversal carina of propodeum complete. Hind femur $5.1-5.4\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.2-1.4\times$ longer than 3rd one. Hind claw with short teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus interstitial or slightly postfurcal by $1\times$ its width. Hairs on basal cell much shorter than their intervals. Hind wing with 8-10 distal hamuli.

Metasoma stout; 1st tergite 1.4-1.55× longer than wide, with dense punctures. 2nd tergite 1.05-1.1× wider than long, with dense punctures. 3rd tergite 1.1-1.2× wider than long, with dense punctures. Ovipositor 1.15-1.2× longer than fore wing, 1.6-1.7× longer than metasoma and 2.9-3.0× longer than hind tibia.

Color: Head and mesosoma mainly yellow. Scape and pedicel black; flagellum reddish, basal flagellomeres black. Mandibular teeth, anterior tentorial pit, median stripe and sometimes two paramedian stripes of face, median stripe of frons, stemmaticum and occiput, three stripes on mesoscutum, scuto-scutellar groove, two stripes on mesopleuron, stripe on mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. Metasoma mainly black; 1st tergite apically, 2nd and 3rd tergites entirely and 4th tergite basally dark reddish or reddish-brown; 1st to 4th tergites with apical yellow bands. Fore and mid legs yellow; fore and mid femora with brown stripes dorsally; hind coxa and trochanter black ventrally, yellow dorsally; hind trochantellus completely yellow; hind femur yellow dorsally and reddish-brown ventrally; hind tibia yellow externally and reddish internally; mid and hind tarsi ± reddish-brown. Wings hyaline; pterostigma brownish, yellow proximally.

♂ unknown.

***Syzeuctus ibericus* nov.sp. (Figs 17, 51, 117)**

H o l o t y p e : (♀) "T: Antiga Espagne Barcelona 1900; collection Dr. J. Tosquinet; *Lissonota* (*Syzeuctus*) *steckii* BRAUNS, dét. J. Tosquinet" (Bruxelles).

S t u d i e d m a t e r i a l : 1♀, Spain*.

D e s c r i p t i o n : ♀: Body length 11 mm. Antenna with 40 flagellomeres; 1st flagellomere 4.3× longer than wide and 0.6× as long as eye; preapical flagellomere 1.35× longer than wide. Temple moderately and roundly narrowed behind eye, dorsally c. 0.4× as long as eye. OED 1.8× and OOD 2.4× ocellar diameter. Frons densely punctate, slightly impressed medially. Face densely punctate. Clypeus 1.7× wider than long, with scattered punctures, apical margin rounded. MI 0.75. Mandible with ventral lamella. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Mesoscutum, mesopleuron and metapleuron with coarse dense punctures. Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth. Speculum punctate. Epicnemial carina slightly elevated, with denticular lamella on transversal part, pleural part ± obsolete. Propodeum with rather dense punctures, apical transversal carina indicated as a blunt rim centrally. Hind femur 5.2× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.3× longer than 3rd hind tarsomere. Hind claw with short teeth basally, moderately bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell shorter than their intervals. Hind wing with 10 distal hamuli.

Metasoma rather slender. 1st tergite 1.45× longer than wide, densely punctate. 2nd tergite 1.25× longer than wide, densely punctate. 3rd tergite 1.2× longer than wide, densely punctate. Ovipositor long, 1.8× longer than fore wing, 2.1× longer than metasoma and 4.0× longer than hind tibia.

Color: Black. Antenna black. Clypeus reddish in apical 2/3. Spot on mandibular base, inner and outer orbits, small anterolateral stripe on mesoscutum, spot on collare, tegula,

apical spots on scutellum and on postscutellum yellow. 1st to 3rd tergites entirely and 4th tergite basally red. Legs including coxae and trochanters black; fore and mid femora and tibiae and fore tarsus with frontal yellowish stripes. Fore wing with subapical brown spot; pterostigma black, yellow proximally.

♂ and hosts unknown.

Remark : This species is closely related to *S. inaequalis* (FONSCOLOMBE) and might represent a variant of that taxon only, but differs by its slenderer flagellum and metasoma, longer ovipositor and slightly different color pattern of the mesosoma.

***Syzeuctus inaequalis* (FONSCOLOMBE, 1854) (Figs 37, 74, 118)**

Original : *Lissonota inaequalis* FONSCOLOMBE, 1854: 507.

H o l o t y p e : (♂) "16. *L. inaequalis* nob." (Paris), type not studied.

syn. *Lissonota Stecki* BRAUNS, 1888: 1-2, synonymized by AUBERT 1978: 129. Lectotype missing (HORSTMANN 1998).

Studied material : 12♀♀, 10♂♂; Bulgaria*, Czech Republic (Bohemia)*, France, Germany, Greece*, Morocco*, Spain, Switzerland.

Description : ♀: Body length 10-10.5 mm. Antenna with 37-41 flagellomeres; 1st flagellomere 3.5-3.7× longer than wide and 0.5× as long as eye; preapical flagellomere about square. Head 2.1× wider than long. Temple shortly parallel behind eye, roundly narrowed apically, dorsally c. 0.45-0.5× as long as eye. OED 1.7-1.8× and OOD 2.8× ocellar diameter. Frons densely punctate, slightly impressed medially. Face densely punctate. Clypeus 1.8-2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.65-0.8. Mandible with ventral lamella. Genal carina reaching mandibular base.

Mesosoma 1.4× longer than high. Mesoscutum, mesopleuron and metapleuron with coarse dense punctures. Frontoventral edge of pronotum moderately curved; lateral pronotal groove partly smooth. Speculum punctate. Epicnemial carina slightly elevated, with denticular lamella on transversal part, pleural part ± obsolete. Propodeum with dense, but partly scattered punctures; apical transversal carina ± present laterally, absent medially. Hind femur 4.3-5.3× longer than wide. Hind metatarsus 0.6× as long as hind femur. 2nd hind tarsomere 1.3-1.4× longer than 3rd hind tarsomere. Fore and mid claws with short teeth; hind claw not pectinate or short teeth, moderately curved apically. Areolet with long stalk; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell longer than their intervals. Hind wing with 9 distal hamuli.

Metasoma stout. 1st tergite 1.15-1.35× longer than wide, with scattered or rather dense coarse punctures laterally. 2nd tergite 1.1-1.25× wider than long, with rather dense coarse punctures. 3rd tergite 1.0-1.3× wider than long, with dense punctures. Ovipositor 1.2-1.5× longer than fore wing, 1.6-2.0× longer than metasoma and 2.5-3.4× longer than hind tibia.

Color: Black. Clypeus reddish in apical 2/3. Tegula reddish or yellowish. Spot on vertex opposite to lateral ocellus, stripe on outer orbit, sometimes stripe of frontal orbit, sometimes anterolateral spot on scutellum, subtegular ridge and spot on metapleuron yellowish. 1st-4th/5th tergites red, often ± brownish apically; 1st tergite often black basally. Coxae and trochanters black; legs otherwise reddish, brown or black; fore femur and tibia with frontal yellowish stripes; tibiae sometimes yellow basally; mid and hind tarsi

brown. Fore wing slightly infusate, with weak subapical brown spot; pterostigma brown or black, yellow proximally.

♂: Body length 9.5-11 mm. Antenna with 38-41 flagellomeres; 1st flagellomere 3.4-3.6× longer than wide and 0.5-0.55× as long as eye. Temple moderately rounded or shortly parallel behind eye, moderately narrowed apically, dorsally 0.6-0.65× as long as eye. OED 1.5-2.0× ocellar diameter. Clypeus 1.8× wider than long. MI 0.85. Genal carina reaching mandibular base.

Frontoventral edge of pronotum moderately curved, lateral pronotal groove partly punctate. Epicnemial carina slightly elevated and with strong tooth on transversal part. Speculum punctate. Apical carina of propodeum shortly present laterally, absent medially. Hind femur 4.3-5.0× longer than wide. Hind metatarsus 0.65-0.75× as long as hind femur. 2nd hind tarsomere 1.25-1.35× longer than 3rd one. Hind claw with long teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus postfurcal by 2× its width.

1st tergite 1.3-1.5× longer than wide, with scattered or rather dense coarse punctures. 2nd tergite 1.05-1.2× wider than long with rather dense punctures. 3rd tergite 1.0-1.2× wider than long, with dense punctures. Spiracles of 2nd and 3rd tergites not protruding laterally.

Color: Black. Clypeus red or yellow. Narrow orbits largely or entirely, often anterolateral spot on mesoscutum, tegula, sometimes small spots on meso- and metapleuron, often anterolateral spot and sometimes hind margin of scutellum and apical margin of postscutellum, sometimes spot on fore coxa, fore femur, tibia and tarsus frontally, often mid femur frontally, and mid and hind tibiae basally yellow. Legs otherwise dark reddish-brown or blackish; sometimes hind femur reddish. Metasoma red, sometimes 1st tergite basally and 4th to 7th tergites ± blackish. Wings without apical spots, pterostigma brown, paler proximally.

Hosts unknown.

***Syzeuctus irrisorius* (ROSSI, 1794) (Figs 75, 119)**

O r i g i n a l : *Ichneumon irrisorius* ROSSI, 1794: 108, type lost.

S t u d i e d m a t e r i a l : 34♀, 30♂; Austria, Corsica, Croatia, Czech Republic (Moravia), France, Germany, Greece*, Hungary, Italy, Sardinia*, Slovakia, Spain, Turkey.

D e s c r i p t i o n : ♀: Body length 7.5-10(12) mm. Antenna with 32-38 flagellomeres; 1st flagellomere 3.8-4.7× longer than wide and 0.56× as long as eye; preapical flagellomere 0.9-1.0× as long as wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.45× as long as eye. OED 1.3-1.6× and OOD 2.1× ocellar diameter. Frons densely punctate, slightly impressed medially. Face densely punctate. Clypeus 1.5× wider than long, with scattered punctures, apical margin rounded. MI 0.8-0.9. Genal carina sometimes reaching hypostomal carina close to mandibular base, usually reaching mandibular base.

Mesosoma with coarse dense punctures, 1.30-1.35× longer than high. Frontoventral edge of pronotum strongly curved; lateral pronotal groove smooth. Epicnemial carina slightly elevated, more distinctly on transversal part, carina on pleural part distinct. Speculum partly smooth. Propodeum with rather dense punctures; apical transversal carina entirely absent or shortly present laterally. Hind femur 5.1-5.2× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd one. Hind

claw with rather short teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein distinctly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 8 distal hamuli.

Metasoma stout. 1st tergite 1.25-1.5× longer than wide, with scattered punctures laterally. 2nd tergite 1.1-1.3× wider than long, with scattered or dense punctures. 3rd tergite 1.15-1.35× wider than long, with rather scattered or dense punctures. Ovipositor 0.8-1.1× as long as fore wing, 1.0-1.4× longer than metasoma and 2.1-2.9× longer than hind tibia.

Var.: A large ♀ from Spain (Bruxelles) has an unusually slender metasoma: body length 12 mm, 1st tergite 1.45× longer than wide, with scattered punctures laterally. 2nd tergite 1.1× longer than wide, with dense punctures. 3rd tergite 1.1× longer than wide, with dense punctures. The specimen is otherwise typical.

Color: Black. Flagellum reddish, basal flagellomeres ± black. Palps, base of mandible, clypeus, gena and orbits yellow. Mesosoma black; spot on collare and upper margin of pronotum, anterolateral and central spots on mesoscutum, tegula, subtegular ridge, two spots on mesopleuron, spot on metapleuron and on upper division of metapleuron, scutellum except black anteromedian spot, postscutellum, spot anterior to propodeal spiracle and large triangular spot on posterior 2/3 of propodeum yellow. 1st tergite with subbasal and apical yellow band; 2nd to 4th/5th tergites with apical yellow bands. 2nd and 3rd tergites sometimes ± reddish. Coxae and trochanters black; hind coxa and trochanter black or hind coxa dorsally, trochanters and trochantelli partly yellow. Fore and mid legs yellow or red; mid tarsus ± brownish; hind femur red; hind tibia usually yellow basally, reddish-yellow apically; hind tarsus ± brownish. Fore wing without or with very weak apical brown spot; pterostigma ochreous.

♂: Body length 7-9 mm. Antenna with 34-36 flagellomeres; 1st flagellomere 4.1× longer than wide and 0.57× as long as eye; preapical flagellomere square. OED 1.4-1.5× ocellar diameter. MI 0.8-0.9. Frontoventral edge of pronotum strongly curved; lateral pronotal groove punctate. Epicnemial carina slightly elevated, more distinctly on transversal part, carina on pleural part distinct. Speculum partly smooth. Propodeum with rather dense punctures; apical transversal carina entirely absent or shortly developed laterally. Hind femur 5.0-5.3× longer than wide. Hind wing with 8-9 hamuli.

1st tergite 1.5-1.7× longer than wide. 2nd tergite 1.0-1.2× wider than long, densely punctate. 3rd tergite 1.0-1.2× wider than long, densely punctate. 2nd and 3rd tergites with transversal thyridia at base.

Color: Similar to ♀. Flagellum reddish, basal flagellomeres infusate. Clypeus reddish or yellow. 1st tergite with subbasal and apical yellow band; 2nd to 5th/6th tergites with apical yellow bands. Coxae black, with yellow spots, trochanters with yellow spots, trochantelli usually yellow. Legs reddish; tarsi ± brownish. Wings without brown spot; pterostigma brownish.

Hosts unknown.

***Syzeuctus kabzabi* nov.sp. (Figs 38, 77, 121)**

H o l o t y p e : (♀) "Mongolia, Chovd aimal, 3 km N von Somon Uenc im Tal Uenc gol, 1450 m, Exp. Dr. Z. Kaszab, 1966; Nr 622, 3.VII.1966" (Budapest).

P a r a t y p e s : (♀) labeled as on the holotype (Budapest); (♀) "Mongolia, Chovd aimal, 3 km N von Somon Uenc im Tal Uenc gol, 1450 m, Exp. Dr. Z. Kaszab, 1966; Nr 614, 2-3.VII.1966" (Budapest).

Studied material: 3♀♀; Mongolia*.

Description: ♀: Body length 9.5-14 mm. Antenna with 34-42 flagellomeres; 1st flagellomere 4.8-5.0× longer than wide and 0.6× as long as eye; preapical flagellomere 1.4× longer than wide. Temple moderately and roundly narrowed behind eye, dorsally c. 0.5× as long as eye. OED 1.4-1.6× and OOD 1.9× ocellar diameter. Vertex almost smooth. Frons with scattered punctures, slightly swollen laterally and impressed medially. Face densely punctate, with parallel sides. Clypeus 1.6-1.7× wider than long, with scattered punctures, apical margin rounded. MI 0.75-0.85. Genal carina reaching mandibular base.

Mesosoma 1.45× longer than high. Frontoventral edge of pronotum strongly curved; lateral pronotal groove smooth. Epicnemial carina slightly elevated, with denticular lamella on transversal part. Mesoscutum, mesopleuron including speculum and metapleuron densely punctate. Propodeum with complete apical transversal carina. Hind femur 5.3-5.6× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.25× longer than 3rd one. Hind claw long and slender, with short teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein almost in its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell slightly shorter than their intervals. Hind wing with 10 distal hamuli.

1st tergite 1.55-1.7× longer than wide, with scattered fine or coarser setiferous punctures laterally. 2nd tergite 1.1-1.35× longer than wide, with scattered or rather dense punctures. 3rd tergite 1.0-1.3× longer than wide, with fine superficial punctures. Ovipositor 1.75× longer than fore wing, 1.9× longer than metasoma and 4.9× longer than hind tibia.

Color: Largely dark brownish-red. Head black, face reddish centrally. Spot on mandible and clypeus yellow-red. Inner orbit, vertical and outer orbits cream-yellow. Mesosoma black, with ± extended reddish-brown suffusion on propodeum, mesopleuron and metapleuron. Collare, upper margin of pronotum, large hook-shaped anterolateral stripe and central spot on mesoscutum, tegula, subtegular ridge, scutellum except antero-median black spot and lateral spot on propodeum cream-yellow. Metasoma red or reddish-brown, 1st to 3rd tergites with diffuse reddish or yellowish apical bands. Legs including coxae and trochanters reddish; fore and mid coxae and trochanters often with yellow spots; fore trochantellus yellow, fore leg with frontal yellow stripe; hind tibia yellow basally. Fore wing with subapical brown spot. Pterostigma brown, cream-yellow proximally.

♂ and hosts unknown.

Remark: This new species is characterized by its slender red metasoma, long ovipositor, long and moderately curved claws, and distinct subapical brown spot on fore wing.

***Syzeuctus kasparyator* AUBERT, 1977, new ♂ (Figs 76, 120)**

Original: *Syzeuctus kasparyator* AUBERT, 1977: 36.

Holotype: (♀) "Kharykin, Kazakhstan, Rudolph, 27-VI-1951, leg. Kasparyan" (St. Petersburg), type not studied.

Studied material: 4♀♀, 6♂♂; Iran*, Jordania*, Kazakhstan, Turkey*, Uzbekistan*.

Description: ♀: Body length 8.5-10.5 mm. Antenna with 36-40 flagellomeres; 1st flagellomere 4.4× longer than wide and 0.48-0.53× as long as eye; preapical

flagellomere square. Temple strongly and roundly narrowed behind eye; dorsally $0.45\times$ as long as eye. Ocelli large: OED $0.9\text{--}1.0\times$ and OOL $1.7\times$ ocellar diameter. Frons distinctly swollen laterally and impressed medially, with scattered punctures, almost smooth above antennal sockets. Clypeus $1.6\times$ wider than long. MI $0.4\text{--}0.5$. Genal carina slightly lamelliform ventrally, reaching mandibular base.

Mesosoma with coarse punctures, $1.45\times$ longer than high. Frontoventral edge of pronotum strongly curved, lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina slightly elevated, with dentiform lamella on transversal part. Propodeum densely and coarsely rugose-punctate; apical transversal carina shortly present laterally, absent or weakly indicated by irregular rugae medially. Hind femur $5.3\text{--}5.9\times$ longer than wide. Hind metatarsus $0.67\times$ as long as hind femur. 2nd hind tarsomere c. $1.6\times$ longer than 3rd hind tarsomere. Hind claw with short basal teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $1\text{--}2\times$ its width. Hairs on basal cell shorter than their intervals. Hind wing with 8 distal hamuli.

1st tergite $2.1\text{--}2.5\times$ longer than wide, with scattered fine setiferous punctures. 2nd tergite $1.2\text{--}1.35\times$ longer than wide, with fine scattered setiferous punctures. 3rd tergite $1.15\text{--}1.2\times$ longer than wide, with fine dense punctures. Ovipositor $0.75\text{--}0.85\times$ as long as fore wing, $0.8\text{--}1.0\times$ as long as metasoma and $1.8\text{--}1.9\times$ as long as hind tibia.

Color: Black. Flagellum reddish, basal flagellomere blackish. Clypeus reddish-yellow. Head yellow; median stripe of frons, stemmaticum and occiput black. Mesosoma yellow, spot on collare, three stripes on mesoscutum, scuto-scutellar groove, band on collare, ventral and posterior margins of pronotum, margins of mesopleuron, mesosternum mainly, margins (except posterior one) of metapleuron and two oblique paramedian stripes on propodeum black. Tergites black, 1st to 5th tergites with wide yellow apical bands, 1st tergite with basal yellow band. 2nd and 3rd tergites with antero-lateral yellow spots. Fore and mid legs completely yellow. Hind leg black; hind coxa yellow dorsally; hind trochantellus yellow; hind femur narrowly yellow at apex (reddish with yellow stripe in Iranian ♀); hind tibia yellow in basal $1/5$. Wings hyaline, fore wing with distinct apical brown spot; pterostigma brown.

♂: Body length $7.5\text{--}9.5$ mm. Antenna with 37–39 flagellomeres; 1st flagellomere $4.2\text{--}5.3\times$ longer than wide and $0.57\text{--}0.62\times$ as long as eye. Head with very coarse punctures. Temple shortly parallel behind eye, distinctly narrowed apically; dorsally $0.35\times$ as long as eye. OED $0.8\text{--}1.0\times$ and OOL $2.0\times$ ocellar diameter. Frons distinctly swollen laterally and impressed medially. Clypeus $1.6\times$ wider than long. MI $0.6\text{--}0.65$. Genal carina slightly elevated ventrally, reaching mandibular base.

Mesosoma with very coarse punctures, $1.5\times$ longer than high. Lateral pronotal groove punctate. Speculum partly smooth. Epicnemial carina low, with low carina on transversal part. Apical transversal carina absent or shortly present laterally. Hind femur $5.3\text{--}5.9\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere c. $1.35\text{--}1.45\times$ longer than 3rd hind tarsomere. Hind claw with short basal teeth. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell shorter than the distance between them.

1st tergite $2.6\text{--}2.8\times$ longer than wide, with very scattered fine setiferous punctures. 2nd tergite $1.5\text{--}1.7\times$ longer than wide, with fine scattered setiferous punctures. 3rd tergite $1.3\text{--}1.5\times$ longer than wide, with fine scattered punctures. 1st to 6th tergites with strongly enlarged, reniform tergal spiracles.

Color: Black. Antenna blackish or reddish ventrally. Head yellow; clypeal margins, median stripe of face, frons medially, stemmaticum and occiput black. Mesosoma yellow, spot on collare, three stripes on mesoscutum, scuto-scutellar groove, band on collare, ventral and posterior margins of pronotum, margins of mesopleuron, mesosternum mainly, margins (except posterior one) of metapleuron and two oblique paramedian stripes on propodeum black. Tergites black, 1st to 4th/6th tergites with wide yellow apical bands, 1st tergite also with subbasal yellow band, 2nd and 3rd tergites with basal yellow band or spots. Fore and mid legs yellow; mid coxa black basally; fore and mid femora sometimes with \pm brownish dorsal stripes; mid tarsus brown. Hind leg black; hind coxa yellow dorsally; hind trochantellus sometimes yellow; hind femur narrowly yellow at apex (reddish with yellow stripe in Iranian ♂); hind tibia yellow in basal 1/3-2/3. Wings hyaline, fore wing with apical brown spot; pterostigma brown.

Hosts unknown.

Remark: Due to the extended tergal spiracles, the new ♂ resembles *S. dusmeti* SEYRIG. It differs by smaller size, smaller and roundish tergal spiracles, shorter malar space, larger ocelli, black apical tergites and scattered punctures on basal tergites.

***Syzeuctus kazakhstanicus* nov.sp. (Figs 52, 98, 122)**

H o l o t y p e : (♀) "Kazakhstan 20 km SE Aksay env., 16.-19.6.1992, leg. J. Halada" (Linz).

P a r a t y p e s : (2♀♀) labeled as on the holotype (Linz); (♀) "Kazakhstan or., River Ili, 14.6.93, Aidarli, lg. K. Denes" (Linz); (2♀♀♂) "Kazakhstan ridge Malaysari 144 km N Alma-Ata, 21.6.92, lg. Jirousek" (Linz, coll. Riedel); (2♂♂) "Kazakhstan Lepsi, 78,8-46,4, 19-20.6.1995, M. Mucka lgt." (Linz); (♂) "Kazakhstan or., Lepsi, 46,4N 78,8E, 19.-20.6.1995, leg. Jiri Halada" (Linz).

S t u d i e d m a t e r i a l : 6♀♀, 4♂♂; Kazakhstan*.

D e s c r i p t i o n : ♀: Body length 9.5-11 mm. Antenna with 42-43 flagellomeres; 1st flagellomere 4.3× longer than wide and 0.53× as long as eye. Temple strongly and roundly narrowed behind eye, width 0.35× eye width. OED 1.6-1.7× ocellar diameter. Frons with slightly protruding sides, centrally impressed, with \pm scattered punctures, and sometimes smooth ventrally. Face protruding centrally. Clypeus 1.6× wider than long, with rounded apex. MI 0.6. Genal carina reaching mandibular base.

Pronotum punctate, lateral pronotal groove \pm smooth ventrally. Epicnemial carina moderately elevated, with \pm distinct lamella at transversal part. Propodeum with dense and partly rugose punctuation; apical transversal carina complete. Hind femur 4.5-4.8× longer than wide. 2nd hind tarsomere 1.5× longer than 3rd one. Hind claw with long teeth in basal 2/3, moderately curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals.

1st tergite 1.8-1.85× longer than wide, with very scattered fine setiferous punctures laterally. 2nd tergite 1.0-1.05× longer than wide; with rather dense punctures. 3rd tergite 1.0-1.15× wider than long, with dense punctures. Spiracles of 1st to 3rd tergites \pm protruding. Ovipositor 1.1-1.2× longer than fore wing, 1.45-1.7× longer than metasoma and 2.4× longer than hind tibia.

Color: Black. Clypeus in apical 1/3-2/3, narrow inner and outer orbits yellow. Mesosoma black. 1st tergite black basally, red apically, sometimes entirely red. 2nd to 5th/6th tergites red. Coxae and trochanters black; legs otherwise reddish-yellow; hind tibia in apical 0.5-0.7 and hind tarsus black. Wings slightly infusate, without dark spots, pterostigma brownish.

♂: Body length 10.5-11 mm. Antenna with 42-45 flagellomeres; 1st flagellomere 5.3× longer than wide and 0.67× as long as eye. OED 1.6× ocellar diameter. Clypeus 1.6× wider than long. MI 0.65. Hind femur 4.7× longer than wide. Nervulus postfurcal by 3× its width. 1st tergite 2.0× longer than wide, densely punctate. 2nd tergite 1.1× longer than wide, with dense coarse punctures. 3rd tergite 1.1× wider than long, with dense punctures.

Color: Black. Mandible except teeth, clypeus and face largely, spot on gena, inner and outer orbits, tegula, sometimes spot on propleuron, sometimes apical spot on scutellum, fore and mid coxae and trochanters frontally, fore and mid legs frontally yellow. Hind coxa and trochanter black or with reddish suffusion. Hind femur red or black; hind tibia yellow at basal 3/10, red apically; hind tarsus brownish. 1st tergite black, red apically; 2nd to 6th tergites reddish. Wings without brown spots; pterostigma brown.

Hosts unknown.

Remark: This new species resembles *Syzeuctus petiolaris* (GRAVENHORST). It differs from *S. petiolaris* by the red apical tergites, rugose-punctate propodeum and slightly longer ovipositor in ♀.

***Syzeuctus leo* (SEYRIG, 1926) (Figs 39, 78, 123)**

Original: *Diceratops leo* SEYRIG, 1926: 130

Lectotype: (♀) "El Soldado (Sierra Morena), VI-22" (Madrid), type not studied.

Studied material: 6♀♀, 6♂♂; Spain, Turkey*.

Description: ♀: Body length 10-11 mm. Antenna with 33-35 flagellomeres; 1st flagellomere 4.5-5.0× longer than wide and 0.6× as long as eye. Temple strongly and roundly narrowed behind eye, 0.4× as wide as eye. Stemmaticum moderately elevated. OED 1.3-1.6× ocellar diameter. Frons strongly impressed medially, with ± distinct sublateral horns, with scattered punctures. Face densely punctate, centrally protruding; inner eye margins parallel. Clypeus 1.5× wider than long, moderately convex, with scattered punctures, apical margin rounded. MI 0.7-0.9. Genal carina slightly sinusoid ventrally, reaching mandibular base.

Side of pronotum coarsely punctate, frontoventral edge moderately curved, lateral pronotal groove rugose ventrally. Speculum partly smooth. Epicnemial carina slightly to moderately elevated, with low carina on transversal part. Propodeum coarsely and densely punctate, with complete apical transversal carina. Hind femur 4.4-4.5× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.3× longer than 3rd one. Hind claw with short teeth, moderately curved apically. Areolet stalked, 2nd recurrent vein slightly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell as long as their intervals.

Metasoma stout; 1st tergite 1.4-1.55× longer than wide, with scattered lateral punctures. 2nd tergite 1.2-1.3× wider than long, with scattered to rather dense punctures. 3rd tergite 1.1-1.3× wider than long, densely punctate. 1st tergite not distinctly widened basally, spiracles on 1st to 3rd tergites slightly protruding. Ovipositor 0.9× as long as fore wing, 1.1-1.2× longer than metasoma and 2.3× longer than hind tibia.

Color: Black. Flagellum reddish ventrally. Clypeus reddish or yellowish apically. Narrow inner orbit up to vertex, narrow outer orbit, anterolateral spot on mesoscutum, tegula and sides of scutellum yellow. 1st to 4th tergites red. Coxae and trochanters black;

fore coxa sometimes with yellow spot. Legs otherwise reddish; hind tibia yellowish basally, infusate in apical third; hind tarsus blackish, sometimes hind metatarsus with yellow stripe. Wings brownish; pterostigma ochreous.

♂: Body length 8-10.5 mm. Antenna with 33-35 flagellomeres; 1st flagellomere 4.7× longer than wide and 0.63× as long as eye. Temple moderately and roundly narrowed behind eye. OED 1.3-1.4× and OOD 1.8× ocellar diameter. MI 0.85. Lateral pronotal groove with coarse striae or rugae. Epicnemial carina low, with low lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 4.5-4.7× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.25× longer than 3rd one.

1st tergite 1.3-1.7× longer than wide, with scattered lateral punctures. 2nd tergite 1.1-1.2× wider than long, with scattered to rather dense punctures. 3rd tergite 1.0-1.2× wider than long, with scattered superficial punctures.

Color: Similar to ♀, but mandible except teeth, clypeus, sometimes central spot on face, sometimes subtegular ridge and spots on fore and mid coxae and trochanters yellow. Coxae and trochanters black, fore and mid legs yellow; fore and mid trochanters and femora with caudal brown stripes. Hind trochantellus yellow; hind femur red, narrowly black basally and yellowish apically OR brownish with apical yellow spot; hind tibia yellow, brown in apical 1/3; hind metatarsus brown, with yellow stripe externally. 1st tergite black, often red apically, 2nd to 4th tergites red. Pterostigma brown.

Hosts: *Pempelia geminella* EVERS MANN, 1840 (Lep. Pyralidae) (Edinburgh).

***Syzeuctus longigenus* UCHIDA, 1940, new ♂ (Figs 8, 21, 45, 86, 132)**

Original: *Syzeuctus longigenus* UCHIDA, 1940: 27

Holotype: (♀) "Mongolei, Apaka, VI.1939" (Sapporo), type not studied, high-resolution photos of holotype seen.

Studied material: 22♀♀, 8♂♂; Mongolia.

Description: ♀: Body length 8-9.5 mm. Antenna with 33-35 flagellomeres; 1st flagellomere 4.0× longer than wide and 0.55× as long as eye; preapical flagellomere 1.1-1.3× longer than wide. Temple moderately and roundly narrowed behind eye, dorsally c. 0.4× as long as eye. OED 1.6-1.8× and OOD 2.0× ocellar diameter. Frons rather densely punctate, moderately swollen laterally and impressed medially. Face densely punctate. Clypeus 1.8-1.9× wider than long, with scattered punctures, apical margin rounded. MI 0.85-0.9. Genal carina reaching mandibular base.

Mesosoma with coarse dense punctures, 1.5× longer than high. Frontoventral edge of pronotum moderately curved; lateral pronotal groove smooth. Epicnemial carina low, without or with ± distinct low carina in transversal part, with low carina on pleural part. Speculum punctate. Propodeum with complete apical transversal carina. Hind femur 4.8-4.9× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.3× longer than 3rd one. Hind claw with long teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus almost interstitial. Hairs on basal cell much shorter than their intervals. Hind wing with 8 distal hamuli.

Metasoma stout. 1st tergite 1.35-1.45× longer than wide, with rather dense coarse punctures laterally. 2nd tergite 1.05-1.15× wider than long, with dense punctures. 3rd tergite 1.1-1.2× wider than long, with dense punctures. Ovipositor 1.2-1.35× longer than

fore wing, 1.5-1.7× longer than metasoma and 3.0-3.2× longer than hind tibia.

Color: Mainly yellow. Flagellum reddish, black basally; scape sometimes yellow ventrally. Head yellow; mandibular teeth, median stripe on face, frons medially, stemmaticum and occiput black. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. 1st to 5th tergites red, with wide apical yellow bands. 1st to 3rd tergites with subbasal and lateral yellow bands. 6th and 7th tergites often brownish. Fore and mid legs yellow, fore and mid femora often with brown dorsal stripes. Hind coxa and trochanter black, hind coxa yellow dorsally; hind trochantellus yellow; hind femur and tibia yellow, reddish or blackish ventrally. All tarsi reddish-yellow. Wings hyaline; pterostigma brown, yellowish proximally.

♂: Body length 8-9 mm. Antenna with 35-36 flagellomeres; 1st flagellomere 3.8× longer than wide and 0.5× as long as eye; preapical flagellomere 1.4× longer than wide. Temple shortly parallel behind eye and moderately narrowed apically. OED 1.7-1.8× and OOD 2.3-2.4× ocellar diameter. Face finely punctate, shining. Inner eye margins slightly divergent ventrally. Clypeus 1.7× wider than long, with scattered punctures, apical margin rounded. MI 1.0-1.1. Genal carina reaching mandibular base.

Epinemial carina low, without carina on transversal part. Speculum punctate. Propodeum with complete apical transversal carina. Hind femur 5.0-5.3× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.2× longer than 3rd one. Hind claw with long teeth. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell much shorter than their intervals. Hind wing with 8 distal hamuli.

1st tergite 1.5× longer than wide, with rather dense coarse punctures laterally. 2nd tergite 1.0-1.1× wider than long, with dense punctures. 3rd tergite 1.0-1.1× wider than long, with dense punctures.

Color: Mainly yellow. Flagellum reddish, black basally; scape yellow ventrally. Head yellow; mandibular teeth, median stripe on face, frons medially, stemmaticum and occiput black. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. 1st to 3rd tergites with subbasal and lateral yellow bands. Fore and mid legs yellow, fore and mid femora often with brown dorsal stripes. Hind coxa and trochanter partly black, hind coxa yellow dorsally; hind trochantellus yellow; hind femur and tibia yellow, ± reddish ventrally. All tarsi reddish-yellow. Wings hyaline; pterostigma brown, yellowish proximally.

Hosts unknown.

***Syzeuctus longivalvator* AUBERT, 1977 (Figs 40, 79, 124)**

O r i g i n a l : *Syzeuctus longivalvator* AUBERT, 1977: 36-37

P a r a t y p e : (♀) "Paratype; Chernomorsk zapov. Smeny., Goloj Pristani, Kasparyan 1.7.974" (Lausanne), type studied.

S t u d i e d m a t e r i a l : 57♀♀, 63♂♂; Bulgaria*, Croatia*, Kazakhstan, Serbia*, Siberia, Turkey*, Ukraine.

Description: ♀: Body length 11-13 mm. Antenna with 38-42 flagellomeres; 1st flagellomere 4.3-4.5× longer than wide and 0.6× as long as eye; preapical flagellomere 1.3× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.35× as long as eye. OED 1.4-1.8× and OOD 2.4× ocellar diameter. Frons densely punctate, moderately swollen laterally and impressed medially. Face densely punctate, with parallel sides. Clypeus 1.7-2.1× wider than long, with scattered punctures, apical margin rounded. MI 0.65-0.85. Mandible with ventral lamella, lower tooth 0.5× as long as upper one. Genal carina lamelliform ventrally, reaching mandibular base.

Mesosoma 1.35× longer than high. Frontoventral edge of pronotum strongly curved; lateral pronotal groove smooth or punctate. Epicnemial carina slightly elevated, with denticular lamella on transversal part. Mesoscutum, mesopleuron including speculum and metapleuron densely punctate. Propodeum with complete apical transversal carina. Hind femur 5.0-5.6× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.35-1.4× longer than 3rd one. Hind claw slender, densely pectinate and moderately bent apically. Areolet stalked; 2nd recurrent vein in or slightly distal to its middle. Nervulus interstitial to postfurcal by 2× its width. Hairs on basal cell shorter than their intervals. Hind wing with 9 distal hamuli.

Metasoma slender. 1st tergite 1.7-2.0× longer than wide, with scattered to rather dense punctures laterally. 2nd tergite 1.3-1.4× longer than wide, with scattered to dense punctures. 3rd tergite 1.2-1.3× longer than wide, with dense but fine superficial punctures. Ovipositor 1.6-2.0× longer than fore wing, 1.8-2.2× longer than metasoma and 4.0-4.5× longer than hind tibia.

Color: Black or dark reddish. Head mainly yellow and with dark median stripe of face and frons, dark stemmaticum and occiput OR with yellow mandible, clypeus, gena and wide orbits. Flagellum reddish, basal flagellomeres; scape and pedicel black. Mesosoma with very extensive yellow coloration: collare, lateral edge and upper margin of pronotum, tegula, subtegular ridge, hook-shaped anterolateral and central spots on mesoscutum, spots on mesopleuron, metapleuron and propodeum, scutellum except black anteromedian spot and postscutellum yellow. Metasoma black or 1st to 3rd tergites reddish-brown; often 1st (and sometimes 2nd) tergites yellow subbasally, 1st/2nd to 4th/5th tergites with yellow apical bands. Fore and mid legs yellow; coxae, femora and tibiae with dorsal brown stripes. Hind coxa, hind trochanter and hind femur yellow dorsally, black ventrally (or entirely reddish); hind trochantellus yellow; hind tibia and tarsus yellow, with dorsal brown stripes (often all tibiae with yellow basal bands). Fore wing with large subapical brown spot. Pterostigma brown, yellowish proximally.

♂: Body length 10-12 mm. Antenna with 36-43 flagellomeres, 1st flagellomere 3.7-4.2× longer than wide and 0.6× as long as eye. Temple strongly and roundly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.2-1.7× ocellar diameter. Stemmaticum and frons with superficial punctures. Frons moderately swollen laterally and impressed medially. Inner eye margins slightly divergent ventrally. Clypeus 1.8-2.0× wider than long, with scattered punctures. MI 0.9-1.1. Mandible with ventral lamella; lower tooth 0.5× as long as upper one. Genal carina reaching mandibular base.

Frontoventral edge of pronotum strongly curved, lateral pronotal groove smooth. Epicnemial carina low, with ± distinct dentiform lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 4.5-4.9× longer than wide. 2nd hind tarsomere 1.2× longer than 3rd tarsomere. Hind claw with short teeth. Areolet

stalked, 2nd recurrent vein in or distal to its middle. Nervulus slightly postfurcal by 1× its width.

1st tergite 1.7-2.1× longer than wide, with rather coarse, scattered or dense punctures. 2nd tergite 1.15-1.25× longer than wide, with fine rather dense punctures. 3rd tergite 1.2-1.25× longer than wide, with superficial punctures.

Color: Black or ± reddish. Palps, mandible except teeth, clypeus except dorsal margin, face except central black stripe, malar space, gena and wide orbits yellow. Mesosoma with extended yellow coloration. Tergites black or 1st to 5th tergites ± reddish; 1st to 6th tergites with wide apical yellow bands; 1st tergite with subbasal yellow spot. Fore and mid coxae and trochanters mainly yellow; hind coxa yellow dorsally and apicoventrally; hind trochanter reddish, hind trochantellus yellow. Legs yellowish, with dorsal reddish stripes; hind femur yellow with ventral red stripe. Wings hyaline, pterostigma brown, yellow in proximal third.

Hosts unknown.

***Syzeuctus maculipennis* (COSTA, 1883) (Figs 41, 80, 125)**

O r i g i n a l : *Lissonota maculipennis* COSTA, 1883: 101

syn. *Lissonota lunigera* BRAUNS, 1888: 2, synonymized by YU & HORSTMANN 1997.

P a r a L e c t o t y p e : (♂) "Sierre 15.7.84 Frieze" (Berlin), studied. Lectotype not found in Berlin.

syn. *Lissonota ducalis* COSTA, 1890: 16, synonymized by YU & HORSTMANN 1997.

syn. *Lissonota multipicta* KRIECHBAUMER, 1895: 264-266, synonymized by YU & HORSTMANN 1997.

P a r a L e c t o t y p e : (♂) "Sièrre 21-23.6.79. Frey-G.; 830; *multipicta* m. ♂" (Bern), studied by Horstmann.

In Munich 1♂ from Sierre labeled as "holotype" by AUBERT in 1973 and 3♂♂ labeled as paralectotypes by HORSTMANN in 2002.

syn. *Syzeuctus braunsii* SZÉPLIGETI, 1899: 31, synonymized by YU & HORSTMANN 1997.

H o l o t y p e : (♂) "Budapest Pável; Holotypus *Syzeuctus braunsii* SZÉPL. (recte: *lunigera*) J.F. Aubert 1976" (Budapest), type studied.

S t u d i e d m a t e r i a l : 25♀♀, 35♂♂; Azerbaijan*, Bulgaria, Croatia, France, Greece*, Hungary, Iran*, Kazakhstan*, Switzerland, Turkey*.

D e s c r i p t i o n : ♀: Body length 10.5-12 mm. Antenna with 37-41 flagellomeres; 1st flagellomere 3.6-4.0× longer than wide and 0.42-0.50× as long as eye; preapical flagellomere 1.1-1.2× longer than wide. Temple moderately and roundly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.5-1.8× and OOD 2.1× ocellar diameter. Frons densely punctate, slightly swollen laterally, with median impression. Face densely punctate, with parallel sides. Clypeus 1.8-2.2× wider than long, with scattered punctures, apical margin rounded. MI 0.6-0.8. Genal carina reaching mandibular base, slightly bent outwards ventrally.

Mesosoma 1.3× longer than high. Frontoventral edge of pronotum moderately curved. Lateral pronotal groove smooth. Epicnemial carina slightly elevated, with ± distinct denticular projection on transversal part. Mesoscutum, mesopleuron including speculum and metapleuron densely punctate. Propodeum with complete apical transversal carina, rarely carina shortly obsolete medially. Hind femur 4.7-5.3× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.2-1.3× as long as 3rd one. Hind claw with dense short teeth, slightly curved apically. Areolet stalked; 2nd recurrent

vein in or distal to its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 9-10 distal hamuli.

1st tergite 1.5-1.9× longer than wide, with scattered or dense coarse punctures. 2nd tergite 1.0-1.3× longer than wide, densely punctate laterally. 3rd tergite 1.0-1.3× longer than wide, with dense punctures. Spiracles of 1st to 3rd tergites ± protruding laterally. Ovipositor 1.1-1.5× longer than fore wing, 1.3-1.8× longer than metasoma and 2.7-3.4× longer than hind tibia.

Color: Black. Basal spot on mandible, clypeus, inner and outer orbits confluent on vertex, often malar space or complete orbits, sometimes paramedian stripes on face, spot on collare yellow. Mesosoma variable: Dark form (f. *lunigera*): sometimes anterolateral spot on scutellum, spot on collare, anterolateral spot on mesoscutum and subtegular ridge yellow. Pale form: Mesoscutum anterolaterally and centrally, collare, tegula, subtegular ridge, stripe or spots on mesopleuron, spot on metapleuron, scutellum and postscutellum, and lateral and central spots on propodeum yellow. Tegula yellowish or reddish. Metasoma sometimes black and basal tergites diffusely reddish, usually 1st-3rd tergites red, sometimes 1st-4th tergites with apical yellow bands. Legs except black coxae and trochanters reddish; sometimes coxae and trochanters with yellow spots; sometimes fore and mid legs with yellow frontal stripes; all tibiae narrowly yellowish at base; sometimes hind tibia yellow externally mid and hind tarsi ± brownish or black. Fore wing with (sometimes weak) subapical brown spot; pterostigma brown or black, yellow proximally.

♂: Body length 9-11 mm. Antenna with 36-43 flagellomeres; 1st flagellomere 3.3-4.0× as long as wide and 0.50-0.55× as long as eye. Temple shortly parallel or slightly rounded behind eye, strongly narrowed apically, dorsally 0.4-0.6× as long as eye. OED 1.6-1.7× and OOD 2.0× ocellar diameter. Clypeus 1.7-2.0× wider than long. MI 0.8-0.9. Genal carina reaching mandibular base.

Lateral pronotal groove smooth ventrally. Epicnemial carina low, with low carina or weak lamella in transversal part. Speculum punctate. Apical transversal carina of propodeum complete. Hind femur 4.3-4.7× longer than wide. Hind metatarsus 0.7-0.75× as long as hind femur. 2nd hind tarsomere 1.3× longer than 3rd one. Hind claw with short teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein slightly proximal or distal to its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 8-9 distal hamuli.

1st tergite 1.5-1.8× longer than wide, with rather dense punctures. 2nd tergite 0.9-1.1× as long as wide, with dense punctures. 3rd tergite 0.9-1.1× as long as wide, with dense punctures. Spiracles of basal tergites not or slightly protruding.

Color: Black and yellow. Face mainly or entirely yellow. Scape and pedicel often yellow ventrally flagellum reddish or blackish. Mesosoma with extended yellow coloration. Basal tergites red or blackish with ± distinct reddish suffusion; 1st to 2nd/4th tergites usually with apical yellow bands. Fore and mid legs largely yellow, sometimes femora and tibiae with red stripes ventrally. Hind coxa black, with yellow spot; hind trochanter usually black, hind trochantellus yellow. Hind femur red or yellow with red dorsal stripe; hind tibia red, yellow basally or externally; mid and hind tarsi ± brown. Subapical spot of fore wing sometimes weak or absent; pterostigma ochreous or blackish, yellow proximally.

Hosts unknown.

***Syzeuctus maroccanus* nov.sp. (Figs 6, 18, 42, 81, 126)**

H o l o t y p e : (♀) "Morocco SW, N of Guelmin, 9.V.2003, M. Snizek leg." (Linz).

S t u d i e d m a t e r i a l : 1♀; Morocco*.

D e s c r i p t i o n : ♀. 5th right hind tarsomere and 2nd to 5th left hind tarsomereres missing. Body length 10 mm. Antenna with 39 flagellomeres; 1st flagellomere 4.8× longer than wide and 0.56× as long as eye; preapical flagellomere about square. Temple strongly and roundly narrowed behind eye, dorsally 0.3× as long as eye. OED 1.0× and OOD 2.2× ocellar diameter. Frons moderately swollen laterally, strongly impressed medially, with scattered punctures, partly smooth medially. Face densely punctate, with parallel sides. Clypeus 2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.5. Genal carina reaching mandibular base, slightly bent outwards ventrally.

Mesosoma 1.5× longer than high. Frontoventral edge of pronotum strongly curved. Lateral pronotal groove smooth ventrally. Epicnemial carina low, with low carina on transversal part. Mesoscutum, mesopleuron and metapleuron densely punctate. Speculum partly smooth. Propodeum with very dense coarse punctures and with short apical transversal carina laterally, carina widely absent medially. Hind femur 5.8× longer than wide. Hind metatarsus 0.68× as long as hind femur. 2nd hind tarsomere 1.5× as long as 3rd one. Mid claw densely pectinate, moderately bent apically (hind claw missing). Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 11 distal hamuli.

Metasoma slender. 1st tergite 2.6× longer than wide, with very scattered fine punctures. 2nd tergite 1.5× longer than wide, rather densely punctate. 3rd tergite 1.2× longer than wide, with dense but very superficial punctures. Ovipositor 0.8× as long as fore wing, 1.0× as long as metasoma and 2.0× longer than hind tibia.

Color: Black. Antenna black. Head mainly yellow; teeth of mandible, median stripe of frons, stemmaticum and occiput black. Mesosoma with rich yellow coloration: pronotum mainly, mesoscutum except three black stripes, scutellum, postscutellum, tegula, subtegular ridge, large spots on mesopleuron, mesosternum and metapleuron, upper division of metapleuron and large lateral and median spots on propodeum yellow. Metasoma reddish-brown, 1st tergite with basolateral yellow spots; 1st to 4th tergites with diffuse apical yellow bands. Fore and mid legs yellow; mid tibia reddish ventrally, mid tarsus brown. Hind coxa black, with large yellow spots; hind trochanter brown, hind trochantellus yellow; hind femur and tibia reddish; hind tibia slightly paler basally. Hind tarsus brown. Fore wing with brown apical stripe. Pterostigma brown.

♂ and hosts unknown.

***Syzeuctus mongolicus* nov.sp. (Figs 7, 19, 43, 82, 127)**

H o l o t y p e : (♀) "Mongolia-Gobi, 100 km SW Dalanzad-gad, Bayanzag, der. *Saxaulus*, 1.-2.VII 2003, J. Halada lg." (Linz).

Paratypes: (7♀♀ 11♂♂) labeled as on the holotype (Linz and coll. Riedel); (3♀♀ 3♂♂) "Mongolia, 6-7.vii.2004, Bayankhongor prov., 130 km S Bayankhongor, N 45°03'E 100°59', 1240 m, Orog Nuur, on *Saxaulus*, Jacob Strake leg." (Linz); (3♀♀ 1♂) "MGL-Bayankhongor, 130 km S Bayankhongor, N 45°03'E 100°59', 1240 m., 6.VII.2004, M. Kadlecova lg." (Linz); (2♀♀ 7♂♂) "MGL-Bayankhongor, 130 km S Bayankhongor, N 45°03'E 100°59', 1240 m., 6.VII.2004, J. Halada lg." (Linz); (♂) "Mongolia-SE Dornogov reg., 5.8.2007, 2 km SE Khuvsbol, J. Halada lg." (Linz).

Studied material: 15♀♀, 22♂♂; Mongolia*.

Description: ♀: Body length 11-12 mm. Antenna with 35-36 flagellomeres, filiform; 1st flagellomere 4.0× longer than wide and 0.44-0.46× as long as eye; preapical flagellomere 1.2-1.3× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.3× long as eye. OED 1.1× and OOD 1.9× ocellar diameter. Frons with scattered punctures, sides moderately swollen, with deep central impression and median longitudinal rim. Face with rather dense punctures, with parallel sides. Clypeus 2.3× wider than long, with very scattered punctures and with transversal central ridge; apical margin rounded. Mandible with wide ventral lamella; lower mandibular tooth small, 0.5× as long as the upper one. Malar space very narrow, MI 0.25-0.35. Genal carina slightly lamelliform ventrally, reaching mandibular base.

Mesosoma punctate, c. 1.5× longer than high. Frontoventral edge of pronotum strongly curved, lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina low, with low carinae on pleural and transversal parts. Propodeum with complete apical transversal carina. Hind femur 4.0-4.3× longer than wide; hind metatarsus 0.63× as long as hind femur. Hind tarsomeres with apical rows of bristles; 2nd hind tarsomere about as long as 3rd one. Hind claw with short teeth in basal 1/3-1/2, slightly bent apically. Areolet with long stalk; 2nd recurrent vein slightly distal to its middle. Nervulus ± interstitial. Hairs on basal cell distinctly shorter than their intervals. Hind wing with 11-12 hamuli.

1st tergite 1.6× longer than wide, with scattered punctures laterally. 2nd tergite 1.0× as long as wide, with fine rather dense punctures. 3rd tergite 1.0-1.05× wider than long, with dense punctures. Spiracles of basal tergites not protruding laterally. Ovipositor 1.0-1.3× longer than fore wing, 1.15-1.4× longer than metasoma and 2.7-3.0× longer than hind tibia.

Color: Yellow. Scape with brown stripe dorsally. Flagellum except blackish basal flagellomeres reddish-brown. Median stripe of face, stripes around ocelli and occiput, three stripes on mesoscutum, scuto-scutellar groove, margins of mesopleuron, stripe on mesosternum and two paramedian spots on propodeum black. Tergites black; 1st tergite with wide basal and apical yellow bands; 2nd to 4th tergites with narrow basal and wide apical yellow bands; 5th tergite with apical band. Legs yellow; stripe on hind coxa and hind trochanter entirely black; hind femur with brown stripe, hind tibia black in apical 1/5; tips of hind tarsomeres ± infusate. Fore wing with distinct subapical brown spot; pterostigma brown, cream-yellow proximally.

♂: Body length 10-12 mm. Antenna with 34-36 flagellomeres, filiform; 1st flagellomere 3.9× longer than wide; preapical flagellomere 1.5× longer than wide. Temple shortly parallel behind eye, strongly roundly narrowed apically. Ocelli large, OED 1.0-1.1× and OOD 1.8× ocellar diameter. Frons with scattered punctures, moderately swollen laterally, with deep central impression and median longitudinal rim. Face with rather dense punctures, with parallel or slightly divergent sides. Clypeus 2.3× wider than long, with very scattered punctures, apical margin rounded. MI 0.25-0.35. Genal carina slightly lamelliform ventrally, reaching mandibular base.

Frontoventral edge of pronotum strongly curved, lateral pronotal groove smooth. Speculum partly smooth. Epicnemial carina low, with low carinae on pleural and transversal parts. Propodeum with complete apical transversal carina. Hind femur $4.1\times$ longer than wide; hind metatarsus $0.6\times$ as long as hind femur. Hind tarsomeres with apical rows of bristles; 2nd hind tarsomere $0.9-1.0\times$ as long as 3rd one. Hind claw without visible teeth, slightly curved apically. Areolet stalked; 2nd recurrent vein slightly distal to its middle. Nervulus \pm interstitial. Hairs on basal cell distinctly shorter than their intervals. Hind wing with 10-11 hamuli.

1st tergite $1.9\times$ longer than wide, with scattered punctures. 2nd tergite about as long as wide, with rather dense punctures. 3rd tergite $1.0-1.05\times$ wider than long, with dense punctures.

Color: Yellow. Scape with brown stripe dorsally. Flagellum except blackish basal flagellomeres reddish-brown. Median stripe of face, stripes around ocelli and occiput, three stripes on mesoscutum, scutoscuteellar groove, margins of mesopleuron, stripe on mesosternum and two paramedian spots on propodeum black. Tergites black; 1st to 5th tergites with wide apical yellow bands, apical band of 6th tergite narrow; 1st to 3rd tergites with basal yellow bands. Legs yellow; stripe on hind coxa and hind trochanter largely black; hind femur with blackish stripe, hind tibia black in apical 0.2; tips of hind tarsomeres \pm infusate. Fore wing hyaline; pterostigma brown, cream-yellow proximally. Hosts unknown.

Syzeuctus paraturcator nov.sp. (Figs 83, 128)

H o l o t y p e : (♀) "Turkey east, Elazig env. 1200 m, 10 June 2011, lgt. K. Deneš jun." (Linz).

P a r a t y p e s : (♂) "Tr. Konya, 30 km S of Aksehir, 24.VI.98, leg. J. Halada" (Linz); (♀) "Turkey SE of Elazog, Hazar Gölü, 29.6.2000, leg. M. Halada" (Linz); (2♀♀) "Iran: Markazi Prov., Arak, Haftad qoleh, Aera chekab, N 34°08'07.2'' E 50°15'56.1'', Jun 11-20 July, 2018, 2090 m, Malaise trap, M. Parchami-Araghi" (coll. Riedel).

S t u d i e d m a t e r i a l : 4♀♀, 1♂; Iran*, Turkey*.

D e s c r i p t i o n : ♀: Body length 10-10.5 mm. Antenna with 36-37 flagellomeres; 1st flagellomere $4.5\times$ longer than wide and $0.6\times$ as long as eye; preapical flagellomere $1.25\times$ longer than wide. Temple strongly and roundly narrowed behind eye, dorsally $0.3\times$ as long as eye. OED $1.4-1.6\times$ and OOD $2.2\times$ ocellar diameter. Frons with scattered punctures medially, moderately swollen laterally and strongly impressed medially. Face densely punctate. Clypeus c. $1.8\times$ wider than long, with scattered punctures, apical margin rounded. MI 0.7. Genal carina reaching hypostomal carina at mandibular base.

Mesosoma coarsely and densely punctate, c. $1.5\times$ longer than high. Frontoventral edge of pronotum strongly curved; latera pronotal groove smooth ventrally. Epicnemial carina low, with low carina on pleural part. Apical transversal carina of propodeum entirely absent or shortly developed laterally (but in one ♀ from Iran indicated medially by some irregular rugae). Hind femur $5.8-6.0\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.3\times$ as long as 3rd one. Hind claw completely pectinate; strongly bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell about as long as their intervals. Hind wing with 8-11 distal hamuli.

Metasoma slender. 1st tergite $1.9-2.0\times$ longer than wide, almost smooth, with few fine punctures laterally, strongly shining. 2nd tergite $1.2-1.25\times$ longer than wide, with very

scattered fine setiferous punctures, strongly shining. 3rd tergite 1.05-1.1× longer than wide, with superficial fine punctures. Ovipositor 1.2-1.4× as long as fore wing, 1.8-2.0× longer than metasoma and 3.1-3.4× longer than hind tibia.

Color: Black. Antenna brown or black. Apical 2/3 of clypeus, narrow facial, wider frontal and narrow outer orbits yellow. Mesosoma black; upper margin of pronotum, anterolateral and central spots on mesoscutum, tegula, subtegular ridge, spot on mesopleuron, scutellum except black anteromedian spot, postscutellum and large triangular spot on posterior propodeum yellow. Metasoma black; 1st to 4th tergites with wide apical yellow bands. Coxae and hind trochanter black; fore coxa with yellow spot; trochanters and trochantelli otherwise yellow. Fore and mid legs yellowish, fore femur with reddish dorsal stripe; hind femur dark brown or black, yellow apically; hind tibia brown or black, with yellow stripe basally and externally; hind tarsus reddish-brown. Fore wing with weak brown apical spot; pterostigma brown, ± yellow proximally.

♂: Body length 9.5 mm. Antenna with 36 flagellomeres; 1st flagellomere 4.7× longer than wide and 0.6× as long as eye. Temple moderately and roundly narrowed behind eye, dorsally 0.5× as long as eye. OED 1.3× ocellar diameter. Frons with scattered punctures medially, moderately swollen laterally and strongly impressed medially. Face densely punctate. Clypeus c. 2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.85. Genal carina reaching hypostomal one at mandibular base.

Mesosoma coarsely and densely punctate. Frontoventral edge of pronotum strongly curved. Lateral pronotal groove smooth ventrally. Epicnemial carina low, with low carina on pleural part. Apical transversal carina of propodeum completely absent or shortly developed laterally. Hind femur 6.5× longer than wide. Hind metatarsus 0.65× as long as hind femur. 2nd hind tarsomere 1.35× as long as 3rd one. Hind claw completely pectinate; strongly bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width.

1st tergite 2.2× longer than wide, almost smooth, with few fine lateral punctures and strongly shining. 2nd tergite 1.2× longer than wide, with very scattered fine setiferous punctures, strongly shining. 3rd tergite 1.05× longer than wide, with superficial fine punctures.

Color: Black. Flagellum brown, blackish basally. Apical 2/3 of clypeus, narrow facial orbit, wider frontal orbit and narrow outer orbit yellow. Mesosoma black; upper margin of pronotum, anterolateral and central spots on mesoscutum, tegula, subtegular ridge, scutellum except black anteromedian spot, postscutellum and large triangular spot on posterior propodeum yellow. Metasoma black; 1st to 4th tergites with wide apical yellow bands. Fore and mid coxae and trochanters black, with yellow spots. Fore and mid legs yellowish; hind leg blackish; hind femur yellow apically; hind tibia brownish, yellow externally. Fore wing hyaline; pterostigma brown.

Hosts unknown.

R e m a r k : This new taxon resembles *S. bicolor* SZÉPLIGETI, but differs by the largely reduced or absent apical transversal carina of propodeum.

***Syzeuctus persicus* nov.sp. (Figs 20, 129)**

H o l o t y p e : (♀) "Iran: Markazi Prov., Arak, Haftad qoleh, Siloak valley, N 34°08'06.5'' E 50°10'50.0'', Jun 10-15 July, 2018, 2090 m, Malaise trap, M. Parchami-Araghi" (coll. Riedel).

S t u d i e d m a t e r i a l : 1♀; Iran*.

Description: ♀: Body length 9 mm. Antenna with 36 flagellomeres; 1st flagellomere 4.0× longer than wide and 0.57× as long as eye; preapical flagellomere 1.1× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally c. 0.3× as long as eye. OED 1.7× and OOD 2.2× ocellar diameter. Frons densely punctate, distinctly swollen laterally and deeply impressed medially. Face densely punctate, inner eye margins distinctly convergent ventrally. Clypeus indistinctly separated from face, c. 1.8× wider than long, with scattered punctures, apical margin rounded. MI 0.4. Mandible with ventral lamella, lower tooth smaller than upper one. Genal carina slightly widened ventrally, reaching mandibular base.

Mesoscutum, mesopleuron and metapleuron with coarse dense punctures. Frontoventral edge of pronotum slightly curved, lateral pronotal groove smooth ventrally. Speculum smooth. Epicnemial carina low, with low carinae on pleural and transversal parts. Propodeum with rather dense punctures; apical transversal carina shortly present laterally. Hind femur 5.5× longer than wide. Hind metatarsus 0.67× as long as hind femur. 2nd hind tarsomere 1.5× longer than 3rd one. Hind claw completely pectinate, moderately curved apically. Areolet stalked; 2nd recurrent vein distinctly distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 8 distal hamuli.

Metasoma slender. 1st tergite 2.3× longer than wide, with scattered fine setiferous punctures laterally. 2nd tergite 1.3× longer than wide, with fine scattered setiferous punctures. 3rd tergite 1.2× wider than long, with dense but fine setiferous punctures. Ovipositor 0.8× as long as fore wing and 0.8× as long as metasoma.

Color: Black. Antenna black. Palps, mandible except teeth, clypeus, face, gena and wide orbits ivory. Mesosoma with extended ivory coloration: frontal and upper margins of pronotum (confluent centrally), hook-shaped spot on mesoscutum (confluent medio-apically), tegula, subtegular ridge, oblique medial band on mesopleuron, scutellum and postscutellum, wide apical transversal band and anterolateral spots on propodeum ivory. 1st tergite with subbasal ivory band, 1st to 4th tergites with apical ivory bands. Fore and mid coxae and trochanters with large ivory spots frontally; hind coxa with dorsal ivory spot; hind trochanters ivory apically, all trochantelli entirely ivory; fore and mid legs ivory; hind femur black, narrowly ivory basally and apically, hind tibia ivory in basal 2/3, infusate apically; hind tarsus ivory in proximal half, brown in distal half. Wings with brown apical bands, pterostigma blackish, pale proximately.

♂ and hosts unknown.

Remark: The status of this new species is questionable. It is closely related to *S. paraturcator* nov.sp. and probably represents a variant of this taxon. The available ♀ differs from *S. paraturcator* by ivory instead of yellow color pattern, shorter ovipositor, entirely ivory face and more extended pale coloration of mesosoma.

***Syzeuctes petiolaris* (GRAVENHORST, 1829) (Figs 84, 130)**

Original: *Lissonota petiolaris* GRAVENHORST, 1829: 110, type lost.

syn. *Lissonota apicalis* GRAVENHORST, 1829: 88, type lost, synonymized by TASCHENBERG 1863: 283.

syn. *Syzeuctus apicalis wolguensis* MEYER, 1922, type lost?

Studied material: 20♀♀, 19♂♂; Austria, Czech Republic (Moravia), France, Germany, Montenegro*, Russia (Sakhalin), Slovakia, Switzerland*, Ukraine*.

Description: ♀: Body length 10-11 mm. Antenna with 41-43 flagellomeres; 1st flagellomere 4.8× longer than wide and 0.55× as long as eye; preapical flagellomere about square. Temple strongly and roundly narrowed behind eye. OED 1.3-1.6× ocellar diameter. Frons not protruding laterally and not impressed medially. Face with dense, partly rugose punctures. Clypeus c. 1.7-1.8× wider than long, with rounded apex. MI 0.65. Genal carina reaching mandibular base.

Frontoventral edge of pronotum moderately curved, lateral pronotal groove partly rugose ventrally. Epicnemial carina slightly elevated, with low lamella on transversal part. Speculum with partly scattered punctures. Propodeum densely punctate, not rugose; apical transversal carina complete. Hind femur 4.6-5.0× longer than wide. Hind metatarsus 0.70× as long as hind femur. 2nd hind tarsomere 1.5-1.6× longer than 3rd one. Hind claw with long teeth in basal 2/3. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 10 distal hamuli.

1st tergite 1.6-1.7× longer than wide, with scattered but rather coarse. 2nd tergite 1.05× longer than wide; with rather dense punctures. 3rd tergite 1.0-1.1× as long as wide, with dense punctures. Ovipositor sheath 1.0× as long as fore wing, 1.1× longer than metasoma and 2.0× longer than hind tibia.

Color: Black. Clypeus in apical 2/3 red or yellow. Inner and outer orbits with narrow yellow stripes. Mesosoma black. 1st tergite black basally, red apically. 2nd and 3rd tergites entirely and 4th tergite basally red. Coxae and trochanters black; legs otherwise reddish-yellow; hind tibia in apical 0.5-0.8 and hind tarsus entirely black. Wings without dark spots; pterostigma brownish.

♂: Body length 9-10 mm. Antenna with 41-43 flagellomeres, 1st flagellomere 4.1-4.5× longer than wide and 0.6× as long as eye. OED 1.2-1.7× ocellar diameter. Temple strongly and roundly narrowed behind eye, dorsally 0.6× as long as eye. Clypeus 1.5× wider than long, convex. MI 0.75-0.8. Lateral pronotal groove partly rugose. Epicnemial carina low, with ± distinct dentiform lamella on transversal part. Speculum punctate. Apical carina of propodeum strong and complete. Hind femur 5.0-5.9× longer than wide. Areolet stalked; 2nd recurrent vein in or distal to its middle.

1st tergite 1.9× longer than wide, with rather dense coarse punctures. 2nd tergite 1.05-1.2× longer than wide, with rather dense coarse punctures. 3rd tergite 1.0-1.1× longer than wide, with dense punctures.

Color: Black. 1st tergite often red apically. 2nd and 3rd tergites entirely red; 4th tergite red, usually with black apical band. Often spot on mandible, inner and outer orbits, clypeus mainly, tegula and usually apical spot on scutellum yellow. Coxae and trochanters black, fore and mid coxae sometimes with yellow spots. Legs otherwise reddish, fore and mid tibiae with yellow frontal stripe. Hind tibia yellow, apical 1/2-2/3 brown; mid and hind tarsi ± brown. Wings without brown apical spots, pterostigma brown.

Hosts unknown.

***Syzeuctus pseudoceballosi* nov.sp. (Figs 85, 131)**

H o l o t y p e : (♀) "S Iran 6 km S.S.E. Shúl, 2190 m, 17-18.6.1973; *S. ceballosi* det. Aubert" (Lausanne).

S t u d i e d m a t e r i a l : 1♀; Iran*.

Description: ♀: Body length 10.5 mm. Antenna filiform, with 38 flagellomeres; 1st flagellomere 4.6× longer than wide. Temple shortly parallel behind eye, strongly and roundly narrowed apically, dorsally c. 0.3× as long as eye. OED 1.1× and OOD 2.4× ocellar diameter. Frons coarsely punctate, with strongly swollen sides, strongly impressed medially. Clypeus 1.6× wider than long, slightly convex, with scattered punctures, apical margin rounded. MI 0.85. Genal carina slightly elevated, reaching hypostomal carina close to mandibular base.

Mesosoma 1.4× longer than high. Side of pronotum including pronotal groove coarsely and densely punctate. Speculum punctate. Epicnemial carina low, with low carina on pleural part, without distinct carina on transversal part. Apical transversal carina of propodeum widely present laterally, obsolete medially. Hind femur 6.3× longer than wide. Hind claw completely pectinate, moderately curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width.

1st tergite 2.05× longer than wide, with scattered setiferous punctures; spiracle not protruding. 2nd tergite 1.3× longer than wide, with scattered fine punctures. 3rd tergite 1.1× longer than wide, with dense punctures. Ovipositor 1.1× as long as fore wing, 1.4 longer than metasoma and 2.7× longer than hind tibia.

Color: Black. Antenna reddish-brown, basal flagellomeres black. Mandible, clypeus, face, gena, wide orbits entirely and scape ventrally yellow. Mesosoma mainly yellow; stripe on collare, three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. 1st to 4th tergites black, with wide yellow apical bands; 1st tergite with wide basal yellow bands; 5th to 7th tergites red; hypopygium reddish-yellow. Fore and mid legs including coxae and trochanters yellow. Hind coxa black, yellow dorsally; hind trochanter black; hind trochantellus yellow; hind femur red, narrow yellow apically; hind tibia red, yellow externally; hind tarsus reddish-brown. Fore wing with very weak apical brown spot, pterostigma brownish.

♂ and hosts unknown.

Remark: This taxon was determined as *S. ceballosi* by AUBERT (see label of holotype). It differs from the Spanish material of *S. ceballosi* SEYRIG by: 1st and 2nd tergites slenderer, genal carina reaching hypostomal carina at mandibular base, 5th to 7th tergites reddish. Ocelli larger. Epicnemial carina without distinct carina on transverse part.

***Syzeuctus robustor* AUBERT, 1978 (Fig. 15)**

Original: *Syzeuctus robustor* AUBERT, 1978: 132, new name for *S. robustus* TELENGA.

syn. *Syzeuctus robustus* TELENGA, 1930: 105, preoccupied by UCHIDA, 1928.

Holotype: (♀) "Uralsk 27.V. and 2.VII.1927, leg. Koloskov" (St. Petersburg), type not studied, high resolution photos seen.

Studied material: 2♀, 1♂; Morocco*, Russia, Turkey*.

Description: ♀: Body length 9 mm. Antenna with 37 flagellomeres; 1st flagellomere 4.5× longer than wide, preapical flagellomere 1.1× longer than wide. Temple strongly and roundly narrowed apically, dorsally 0.25-0.35× as wide as eye. OED 1.1× and OOD 1.8× ocellar diameter. Frons densely punctate, slightly swollen

laterally, with weak median impression. Clypeus slightly convex, c. $2\times$ wider than long. Lower mandibular tooth smaller than upper one. MI 0.65. Genal carina reaching mandibular base.

Pronotum densely punctate, lateral pronotal groove smooth ventrally. Epicnemial carina low, with low lamella at transversal part. Speculum partly smooth. Apical transversal carina of propodeum entirely absent. Hind femur $5.4\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.35\times$ longer than 3rd one. Hind claw without visible teeth, strongly bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell much shorter than their distance. Hind wing with 8 distal hamuli.

1st tergite $2.1\times$ longer than wide, with scattered punctures. 2nd tergite $1.2\times$ longer than wide, with dense punctures. 3rd tergite $1.1\times$ longer than wide, with superficial punctures. Ovipositor $0.75\times$ as long as fore wing, $0.95\text{--}1.0\times$ as long as metasoma and $2.0\times$ longer than hind tibia.

Color: Head and mesosoma mainly yellow. Antenna yellowish. Stripes between ocelli, occiput, scape dorsally, proximal $2/3$ of 1st flagellomere, three stripes on mesoscutum, three spots on mesopleuron, stripe on mesosternum, spot on metapleuron, two paramedian spots on propodeum, stripes on hind coxa and hind trochanter black. Metasoma mainly reddish; 1st tergite with wide basal and apical yellow bands, blackish centrally; 2nd and 3rd tergites with basolateral yellow spots and wide apical yellow bands; 4th and 5th tergites with wide apical yellow bands; hypopygium yellow. Legs yellowish; hind femur, tibia and tarsus reddish. Fore wing without or with weak brown apical spot; pterostigma brown, yellowish proximally.

♂: Body length 9 mm. Antenna with 37 flagellomeres; 1st flagellomere $4.5\times$ longer than wide; preapical flagellomere $1.1\times$ longer than wide. Temple strongly and roundly narrowed apically, dorsally c. $0.3\times$ as long as eye. OED $1.2\times$ ocellar diameter. Frons densely punctate, with slightly swollen sides and weak median impression. Clypeus slightly convex, c. $2\times$ wider than long. MI 1.0. Genal carina reaching mandibular base.

Pronotum densely punctate, lateral pronotal groove smooth ventrally. Epicnemial carina low, with low carina at transversal part. Apical transversal carina of propodeum absent. Hind femur $5.6\times$ longer than wide. Hind metatarsus $0.7\times$ as long as hind femur. 2nd hind tarsomere $1.33\times$ longer than 3rd one. Hind claw without visible teeth, strongly bent apically.

1st tergite $2.1\times$ longer than wide, with fine scattered punctures. 2nd tergite $1.2\times$ longer than wide, with fine scattered punctures. 3rd tergite $1.05\times$ longer than wide, with superficial fine punctures.

Color: Head and mesosoma yellow. Scape yellow, brown dorsally; flagellum reddish-brown. Stripes between ocelli, occiput, three stripes on mesoscutum, spots on mesopleuron, spots on metapleuron, two paramedian spots on propodeum, stripes on hind coxa and complete hind trochanter black. 1st to 3rd tergites yellow; 1st tergite blackish centrally; 2nd and 3rd tergites with central brown band. 4th and 5th tergites red, with wide yellow apical bands; 6th and 7th tergites reddish-brown. Legs yellowish; hind femur reddish. Fore wing without or with weak brown apical spot; pterostigma ochreous.

***Syzeuctus ruficoxis* nov.sp. (Figs 22, 46, 87, 133)**

H o l o t y p e : (♀) "Yugoslavia, Zlot 18.7.1989, M. Brajkovic" (Munich).

S t u d i e d m a t e r i a l : 1♀, Serbia*.

D e s c r i p t i o n : ♀: Left flagellomeres from 14th on, right flagellomeres from 11th on and 3rd-5th hind tarsomeres of left tarsus missing. Body length 8 mm. 1st flagellomere 4.2× longer than wide and 0.48× as long as eye. Temple strongly and roundly narrowed behind eye, dorsally 0.35× as long as eye. Ocelli large, OED 0.9-1.0× and OOD 2.1× ocellar diameter. Frons densely punctate, with fine granulation, moderately impressed medially. Face densely punctate, shining. Clypeus 2× wider than long, with scattered punctures and fine granulation, apical margin rounded. MI 0.8. Genal carina reaching mandibular base.

Mesosoma densely punctate. Lateral pronotal groove finely rugulose. Epicnemial carina low, without carina on transversal part. Propodeum with complete apical transversal carina. Hind femur 4.7× longer than wide. Hind metatarsus 0.67× as long as hind femur. 2nd hind tarsomere 1.55× longer than 3rd one. Hind claw pectinate, moderately curved apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus widely postfurcal by 4× its width. Hairs on basal cell shorter than their intervals. Hind wing with 8 distal hamuli.

1st tergite 1.7× longer than wide, coarsely and densely punctate. 2nd tergite 1.1× longer than wide, with dense punctures. 3rd tergite 1.05× longer than wide, with dense punctures. Ovipositor very long, 2× longer than fore wing, 2.6× longer than metasoma and 4.8× longer than hind tibia.

Color: Black. Spot on facial orbit, narrow stripe on frontal and outer orbits, frontal margin of pronotum, tegula, subtegular ridge and sides of scutellum yellow. Flagellum, clypeus, hind edge of pronotum and legs including all coxae and trochanters red. 1st to 4th tergites entirely red. Wings hyaline; pterostigma reddish-brown, pale basally.

♂ and hosts unknown.

R e m a r k : This small new species is characterized by its entirely red legs including coxae and trochanters, red basal tergites and the very long ovipositor.

***Syzeuctus rufigaster* nov.sp. (Figs 23, 47, 88, 134)**

H o l o t y p e : (♀) Kirgizia sept-west 22.5.94, 20 km W Czolpon-Ata 42,8 N 77,4 E (Issik-kul), leg. K. Denes jr. (Linz).

P a r a t y p e : (♀) Kirgizia sept-west, 20 km W Czolpon-Ata 42,8 N 77,4 E (Issik-kul), leg. J Kadlec 22.5.94 (Linz).

S t u d i e d m a t e r i a l : 2♀♀; Kyrgyzstan*.

D e s c r i p t i o n : ♀: Body length 9-10 mm. Antenna with 35-36 flagellomeres; 1st flagellomere 4.8× longer than wide and 0.6× as long as eye; preapical flagellomere 1.1-1.2× longer than wide. Temple shortly parallel behind eye, strongly narrowed apically. OED 1.7× and OOD 2.2× ocellar diameter. Frons moderately protruding laterally and impressed medially, with partly scattered punctures, shining. Face densely punctate, inner eye margins parallel. Clypeus 1.5-1.7× wider than long, convex, with very scattered punctures; apical margin rounded. MI 0.7-0.8. Genal carina reaching mandibular base.

Mesosoma with coarse dense punctures; $1.5\times$ longer than high. Frontoventral edge of pronotum moderately curved, lateral pronotal groove smooth. Speculum punctate. Epicnemial carina low, with dentiform lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur $5.3\text{--}5.6\times$ longer than wide; hind leg rather slender, hind metatarsus $0.7\times$ as long as hind femur. Hind claw with long teeth, moderately curved apically. Areolet stalked, 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell much shorter than their intervals. Hind wing with 8 distal hamuli.

Metasoma stout; 1st tergite $1.3\text{--}1.4\times$ longer than wide, with rather dense coarse punctures laterally. 2nd tergite $1.0\text{--}1.15\times$ wider than long, with dense punctures. 3rd tergite $1.1\text{--}1.2\times$ wider than long, densely punctate. Ovipositor $1.3\times$ as long as fore wing, $1.7\text{--}1.8\times$ as long as metasoma and $3.0\times$ longer than hind tibia.

Color: Black. Flagellum dark reddish-brown, black basally. Mandible except teeth, clypeus, complete orbits and malar space yellow. Mesosoma with extended yellow coloration: frontal and upper margins of pronotum, tegula, subtegular ridge, hook-shaped anterolateral and central spots on mesoscutum, scutellum and postscutellum, spots in mesopleuron, metapleuron and propodeum yellow (yellow spots smaller in paratype). 1st to 5th tergites completely reddish, 6th and 7th tergites brownish. Coxae and trochanters black, with \pm yellow spots. Legs otherwise reddish; fore and mid legs yellowish frontally, fore femur brownish dorsally; hind tibia yellow basally or externally. Hind tarsus \pm brownish. Wings hyaline, without brown spots; pterostigma brown, yellow proximally.

♂ and hosts unknown.

R e m a r k : This new species resembles *S. inaequalis* (FONSCOLOMBE), but differs by the extended yellow coloration of mesosoma, hyaline wings and complete apical transversal carina of propodeum.

***Syzeuctus szilagysagiensis* KISS, 1926 (Figs 48, 89, 135)**

O r i g i n a l : *Syzeuctus szilagysagiensis* KISS, 1926a

H o l o t y p e : (♀) "Szilágycseh Dr. Z. Kiss; Typus; *Syzeuctus elegans* SZÉPL. det. Bajari" (Budapest), type studied.

syn. *Syzeuctus elegans* SZÉPLIGETI, 1899: 30, preoccupied by *Meniscus* (recte: *Syzeuctus*) *elegans* CRESSON, 1870.

H o l o t y p e : (♀) "Fonyod; *elegans*; Holotypus *Syzeuctus elegans* SZÉPL. ♀ Papp 1970" (Budapest), type studied.

S t u d i e d m a t e r i a l : 16♀♀, 22♂♂; Austria, Croatia*, France, Hungary, Italy*, Serbia*.

D e s c r i p t i o n : ♀: Body length 10–11 mm. Antenna with 41–43 flagellomeres; 1st flagellomere $4.3\text{--}4.7\times$ longer than wide and $0.57\times$ as long as eye; preapical flagellomere $1.1\times$ longer than wide. Temple strongly and roundly narrowed behind eye, dorsally $0.35\text{--}0.45\times$ as long as eye. OED $1.3\text{--}1.6\times$ and OOD $2.3\times$ ocellar diameter. Frons densely punctate, \pm swollen laterally, moderately impressed medially or with median rim, \pm smooth above antennal sockets. Face densely punctate. Clypeus $1.7\text{--}2.0\times$ wider than long, with scattered punctures, apical margin rounded. Mandible with ventral lamella. MI 0.5–0.65. Genal carina reaching mandibular base.

Mesosoma $1.4\text{--}1.6\times$ longer than high. Pronotum densely punctate, lateral pronotal groove

± smooth. Speculum punctate. Epicnemial carina low, without or with low carina on transversal part. Apical transversal carina of propodeum absent or indicated by some indistinct transversal rugae. Hind femur 5.0-5.9× longer than wide. Hind metatarsus 0.65-0.75× as long as hind femur. 2nd hind tarsomere 1.35-1.45× longer than 3rd one. Hind claw densely pectinate, strongly bent apically. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus postfurcal by 1-2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 8 distal hamuli.

Metasoma slender; 1st tergite 2.0-2.2× longer than wide, with scattered punctures. 2nd tergite 1.15-1.4× longer than wide, with dense sometimes superficial punctures. 3rd tergite 1.0-1.5× longer than wide, with dense punctures. Spiracles of 2nd and 3rd tergites ± protruding. Ovipositor 1.05-1.2× longer than fore wing, 1.15-1.3× longer than metasoma and 2.4-2.7× longer than hind tibia.

Color: Black. Flagellum usually reddish. Palps, clypeus in apical 2/3, often vertex opposite to lateral ocellus and outer orbit (sometimes black), tegula, often spot on subtegular ridge, sometimes spot on collare, apico-lateral or apical spot on scutellum, postscutellum ± and sometimes 1st tergite basally yellow. Metasoma black, sometimes 1st to 3rd tergites basally and apically reddish or yellowish or ± red-yellow, 2nd and 3rd tergites often with narrow yellow apical bands. Coxae black, sometimes yellowish apically; sometimes hind trochanter black; usually trochanters ± and all trochantelli yellow. Legs reddish; fore and mid legs yellow frontally; hind femur red or brownish, often yellow apically. Hind tibia yellow basally, ± brown apically, hind tarsus ± brown. Fore wing with apical brown spot, pterostigma ochreous or brown.

♂: Body length 9-10.5 mm. Antenna with 42-46 flagellomeres, 1st flagellomere 5.0× longer than wide and 0.62× as long as eye. Temple roundly narrowed behind eye, with scattered punctures. OED 1.2-1.6× ocellar diameter. Clypeus 2.0-2.1× wider than long. MI 0.65-0.75 (1.0). Hind femur 5.3× longer than wide; hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Hind claw strongly bent apically.

1st tergite 2.5-2.6× longer than wide, with rather dense setiferous punctures. 2nd tergite 1.35-1.50× longer than wide, with dense punctures. 3rd tergite 1.30-1.35× longer than wide, with dense punctures. Spiracles of 2nd and 3rd tergites protruding laterally; 2nd to 6th tergites with moderately enlarged, roundly or oval spiracles.

Color: Black. Flagellum reddish, basal flagellomere ± black. Spot on mandible, clypeus in lower 1/2, inner and outer orbits, sometimes paramedian stripes of face, spot on collare, tegula, subtegular ridge, anterolateral spot on mesoscutum, lateral spot or entire scutellum, sometimes postscutellum, spots and sometimes transverse subapical stripe on propodeum, stripes on fore and mid coxae and trochanters, and all trochantelli entirely yellow. Tergites blackish, often 1st tergite basally and apically and 2nd and 3rd tergites apically with narrow yellow bands. Fore and mid femora, tibiae and tarsi yellowish; hind coxa black, sometimes yellow apically; hind leg otherwise red, hind tibia basally or entirely yellow, slightly infusate apically. Mid and hind tarsi ± brown. Fore wing hyaline or with weak apical spot; pterostigma brownish.

Hosts unknown.

***Syzeuctus tenuifasciatus* SCHMIEDEKNECHT, 1900 (Figs 90, 136)**

O r i g i n a l : *Syzeuctus tenuifasciatus* SCHMIEDEKNECHT, 1900: 345, new name for *S. punctiventris* THOMSON.

syn. *Lissonota punctiventris* THOMSON, 1894: 2128, preoccupied by THOMSON, 1877.

H o l o t y p e : (♀) "29/VI Triest" (Lund), type not studied.

syn. nov. *Syzeuctus quadripunctorius* KISS, 1929

H o l o t y p e : (♀) "Szászkézd Silbernagel; Typus; *Syzeuctus maculatorius* F. var. *4-punctorius* KISS" (Budapest), type studied.

syn. nov. *Syzeuctus rufipes* KISS, 1933

H o l o t y p e : (♂) "Budapest Kamaraedö 7.IX.927 A. Müller; Typus; *Syzeuctus maculatorius* F. v. *rufipes* KISS" (Budapest), type studied.

S t u d i e d m a t e r i a l : 56♀, 58♂; Austria, Bulgaria, Croatia, Czech Republic, Germany, Greece*, Hungary, Italy, Kazakhstan*, Kyrgyzstan*, Serbia, Slovakia, Switzerland*, Turkey, Uzbekistan*.

D e s c r i p t i o n : ♀: Body length 8-12.5 mm. Antenna with 33-42 flagellomeres; 1st flagellomere 4.5-5.0× longer than wide and 0.6× as long as eye; preapical flagellomere 1.0-1.1× longer than wide. Temple short, strongly and roundly narrowed behind eye, dorsally 0.25-0.35× as long as eye. OED 1.6-2.2× and OOD 2.8× ocellar diameter. Frons strongly impressed medially, sides with distinct swellings and sometimes ± distinct transverse ridge or lamella, with dense punctures. Face densely punctate, inner eye margins slightly convergent ventrally. Clypeus 1.5-1.7× wider than long, with very few setiferous punctures, apical margin rounded. MI 0.6-0.75. Genal carina reaching mandibular base.

Mesosoma 1.35-1.4× longer than wide. Mesoscutum and mesopleuron with rather dense punctures. Frontoventral edge of pronotum strongly curved, lateral pronotal groove finely rugose or ± punctate. Speculum punctate. Epicnemial carina low, with dentiform lamella on transversal part. Propodeum coarsely and densely punctate, with strong and complete apical transversal carina. Hind femur 5.0-5.7× longer than wide. Hind metatarsus 0.6-0.75× as long as hind femur. 2nd hind tarsomere 1.4-1.45× longer than 3rd one. Hind claw with short teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in or slightly distal to its middle. Nervulus postfurcal by 1× its width. Hairs on basal cell about as long as their intervals. Hind wing with 10 distal hamuli.

Metasoma slender. 1st tergite 1.55-1.9× longer than wide, with coarse but scattered lateral punctures. 2nd tergite 1.0-1.3× as long as wide, densely punctate. 3rd tergite 1.0-1.4× as long as wide, densely punctate. Ovipositor 1.1-1.5× longer than fore wing, 1.1-1.3× longer than metasoma and 2.4-2.9× longer than hind tibia.

Color: Black. Flagellum black, sometimes reddish-brown distally. Palps, clypeus in apical 2/3 (sometimes reddish), wider inner and narrower outer orbits, sometimes frontal spot on upper margin of pronotum, anterolateral and sometimes central spots on mesoscutum, sometimes spot on mesopleuron, tegula, sometimes spot on subtegular ridge, scutellum apically or mainly except anteromedian black spot, often postscutellum, and sometimes spot on propodeum yellow. Metasoma black, sometimes 1st tergite with subbasal yellow spot and 2nd and 3rd tergites with narrow apical yellow bands. Coxae and trochanters black; sometimes fore coxa and trochanter with yellow spot; fore trochantellus reddish. Legs otherwise reddish; hind tibia often yellow basally and sometimes darkened in apical 0.3; hind tarsus ± brown or black, hind metatarsus often ± yellow

basally. Wings with apical brown stripes (sometimes weak); pterostigma reddish-brown.

♂: Body length 7-11 mm. Antenna with 35-40 flagellomeres; 1st flagellomere 4.5× longer than wide, preapical flagellomere 1.1-1.2× longer than wide. Temple shortly parallel behind eye, moderately narrowed apically, dorsally 0.4× as long as eye. OED 1.4-1.8× ocellar diameter. Clypeus 1.7× wider than long. MI 0.75. Lateral pronotal groove smooth ventrally. Speculum partly with scattered punctures. Epicnemial carina low, with strong denticular lamella on transversal part. Apical transversal carina of propodeum complete. Hind femur 3.9-5.5× longer than wide. Hind metatarsus 0.7× as long as hind femur. 2nd hind tarsomere 1.45× longer than 3rd one. Areolet stalked; 2nd recurrent vein in the middle. Nervulus postfurcal by 1× its width.

1st tergite 1.9-2.1× longer than wide, with scattered punctures. 2nd tergite 1.05-1.1× longer than wide, with fine scattered or rather dense punctures. 3rd tergite 1.0-1.3× longer than wide, with rather dense punctures.

Color: Black. Flagellum reddish, darker basally. Palps, mandible, clypeus, face (often except black central or paramedian stripes), malar space, wide orbits, and scape ventrally yellow. Mesosoma with extended yellow coloration: at least spot on collare, anterolateral spot on mesoscutum, tegula, subtegular ridge, spot on mesopleuron, apical scutellum and postscutellum and median spot on propodeum yellow. 1st to 4th tergites with apical yellow bands; 1st tergite often with subbasal yellow spot. Fore and mid coxae and trochanters brown, with yellow spots; hind coxa and trochanters black. Fore and mid legs largely yellow, ± reddish-yellow caudally; hind femur red; hind tibia reddish-yellow, dark in apical 0.2; hind tarsus brown in distal 2/3. Fore wing with brown apical spot, pterostigma yellowish-red.

Hosts unknown.

R e m a r k : The separation of this species from the closely related *Syzeuctus fuscator* (PANZER) which is used here is in accordance with SCHMIEDEKNECHT (1907: 1262), but differs from the suggestions made by HORSTMANN 1999: 53. In HORSTMANN's view, the taxon *S. fuscator* (PANZER) contains specimens with very variable coloration, especially of hind legs, and therefore he included many specimens into his concept of *S. fuscator* that are determined as *S. tenuifasciatus* here.

In my opinion, all specimens with yellow-red or reddish hind femora (which have the same coloration as the mid femora) belong to *S. tenuifasciatus* whereas specimens with reddish-brown or blackish hind femora (with or without apical yellow margins and always darker than the mid femora) belong to *S. fuscator*. If one accepts this separation, the types of *S. quadripunctorius* and *S. rufipes* should be transferred to *S. tenuifasciatus* (syn. nov.)

***Syzeuctus tigris* SEYRIG, 1926 (Figs 49, 91, 137)**

O r i g i n a l : *Syzeuctus tigris* SEYRIG, 1926: 129

H o l o t y p e : (♀) Panarroya (Sierra Morena), VI-1923 (Madrid), type not studied.

S t u d i e d m a t e r i a l : 45♀♀, 31♂♂; Croatia*, France, Gran Canaria, Italy*, Malta, Morocco*, Sicily, Spain, Tunisia*.

D e s c r i p t i o n : ♀: Body length 8-10 mm. Antenna with 28-32 flagellomeres; 1st flagellomere 4.2-4.4× longer than wide and 0.5× as long as eye; preapical flagellomere

square or slightly transverse. Temple strongly and roundly narrowed behind eye, dorsally $0.3\times$ as long as eye. OED $1.2\text{--}1.3\times$ and OOD $1.6\times$ ocellar diameter. Frons coarsely punctate, smoothened and strongly impressed medially, moderately swollen laterally. Face densely punctate, centrally protruding. Clypeus small, c. $1.7\times$ wider than long, with scattered punctures, apical margin rounded. MI 0.75. Genal carina reaching hypostomal one close to mandibular base.

Mesosoma very coarsely and densely punctate. Frontoventral edge of pronotum strongly curved. Lateral pronotal groove punctate. Speculum partly smooth. Epicnemial carina low, carina on pleural part present, without carina on transversal part. Apical transversal carina of propodeum \pm present laterally, absent medially. Hind femur $5.0\text{--}5.6\times$ longer than wide. Hind metatarsus $0.6\times$ as long as hind femur. 2nd hind tarsomere $1.4\times$ longer than 3rd one. Hind claw with basal teeth, strongly curved apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by $2\times$ its width. Hairs on basal cell shorter than or as long as their intervals. Hind wing with 9 distal hamuli.

Metasoma slender. 1st tergite $2.2\text{--}2.5\times$ longer than wide, almost smooth, with very few lateral punctures. 2nd tergite $1.25\text{--}1.6\times$ longer than wide, with fine setiferous punctures. 3rd tergite $1.1\text{--}1.15\times$ longer than wide. 2nd to 3rd/4th tergites with triangular antero-medial areas. Spiracles of 2nd and 3rd tergites slightly protruding laterally. Ovipositor $1.05\text{--}1.15\times$ longer than fore wing, $1.25\text{--}1.35\times$ longer than metasoma and $2.6\text{--}3.2\times$ longer than hind tibia.

Color: Black. Mandible except teeth, clypeus, face, gena and wide orbit yellow. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. 1st to 4th/5th tergites black; 1st tergite yellow subbasally; 1st to 5th/6th tergites with wide apical yellow bands; 5th or 6th and 7th tergites usually reddish. Fore and mid coxae and trochanters, hind coxa dorsally and all trochantelli yellow. Fore and mid legs mainly yellow-red, mid tarsus \pm brown. Hind leg brownish; hind femur apically and hind tibia basally (sometimes also apically) yellow. Fore wing with apical brown stripe; pterostigma brown.

♂: Body length 7-7.5 mm. Antenna with 28-31 flagellomeres. Temple strongly and roundly narrowed behind eye, dorsally $0.3\times$ as long as eye. OED $1.2\times$ ocellar diameter. Frons coarsely punctate, smoothened and strongly impressed medially, sides moderately swollen. Face densely punctate, centrally protruding. Clypeus small, $1.7\text{--}2.0\times$ wider than long, with scattered punctures, apical margin rounded. MI 0.9. Genal carina reaching hypostomal one close to mandibular base.

Mesosoma very coarsely and densely rugose-punctate. Lateral pronotal groove rugose-punctate. Speculum partly smooth. Epicnemial carina low or slightly elevated, pleural part present, transversal part absent. Apical transversal carina of propodeum widely absent medially. Hind femur $5.3\text{--}5.4\times$ longer than wide. Hind claw with basal teeth. Areolet with long stalk; 2nd recurrent vein strongly distal to its middle. Nervulus postfurcal by $2\times$ its width.

1st tergite $2.2\text{--}2.7\times$ longer than wide, almost smooth, with very few lateral punctures. 2nd tergite $1.3\text{--}1.6\times$ longer than wide. 3rd tergite $1.1\text{--}1.4\times$ longer than wide.

Color: Black. Flagellum reddish-brown, darker basally. Head yellow; median stripes of

face and frons, stemmaticum and occiput black. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. Tergites blackish or dark brownish; 1st tergite with wide basal and apical yellow band; 2nd to 6th/7th tergites with wide apical yellow bands. Fore and mid legs yellow. Hind coxa brown, yellow apically; hind trochanter brown, hind trochantellus yellow; hind femur reddish-brown, sometimes yellowish apically; hind tibia brown, yellow in basal 1/4; mid and hind tarsi brown. Wings hyaline, fore wing with apical brown spot; pterostigma brown.

Hosts unknown.

***Syzeuctus turcator* AUBERT, 1984 (Figs 92, 138)**

O r i g i n a l : *Syzeuctus turcator* AUBERT, 1984: 19

H o l o t y p e : (♂) "Type; *Syzeuctus turcator* AUBERT ♂; Tk Madensehir Konya 24-VII-71 Turquie leg. Kl. Warncke" (Lausanne), type studied.

S t u d i e d m a t e r i a l : 4♀♀, 2♂♂; Iran*, Turkey.

D e s c r i p t i o n : ♀: Body length 8.5-10 mm. Antenna with 36-38 flagellomeres; 1st flagellomere 5.0× longer than wide and 0.6× as long as eye; preapical flagellomere square. Temple strongly and roundly narrowed behind eye, dorsally 0.3× as long as eye. OED 1.4× and OOD 2.3× ocellar diameter. Frons coarsely punctate, with smoothened surface, strongly impressed medially, sometimes with median rim, strongly swollen laterally. Face densely punctate, centrally protruding. Clypeus small, 1.5-1.7× wider than long, with scattered punctures, apical margin rounded. MI 0.6-0.75. Genal carina reaching hypostomal one at mandibular base.

Mesosoma very coarsely and densely punctate. Frontoventral edge of pronotum strongly curved. Lateral pronotal groove smooth. Epicnemial carina low, pleural part present, transversal part with dentiform lamella. Apical transversal carina of propodeum shortly present laterally and absent medially or entirely absent. Hind femur 5.7-6.0× longer than wide. Hind metatarsus 0.65-0.7× as long as hind femur. 2nd hind tarsomere 1.45-1.5× as long as 3rd one. Hind claw completely pectinate; strongly bent apically. Areolet stalked; 2nd recurrent vein distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell about as long as their intervals. Hind wing with 8 distal hamuli.

1st tergite 1.8-1.9× longer than wide, almost smooth, with very few lateral punctures. 2nd tergite 1.15× longer than wide, with scattered fine setiferous punctures. 3rd tergite 0.9-1.1× as long as wide, with superficial fine punctures. Ovipositor 0.85-1.1× as long as fore wing, 1.1-1.4× longer than metasoma and 2.2-2.9× longer than hind tibia.

Color: Black. Flagellum brown or reddish, blackish basally. Spots on mandible, clypeus, wide orbits or entire face and malar space yellow. Mesosoma black, with extended yellow coloration: spot on collare, side of pronotum largely, anterolateral and sometimes central spots on mesoscutum, scutellum except black anteromedian spot, postscutellum, tegula, subtegular ridge, two spots on mesopleuron, spots on metapleuron and upper division of metapleuron, spot anterior to propodeal spiracle and triangular spot on posterior propodeum yellow. Metasoma black; 1st and sometimes 2nd tergites with basal yellow bands or spots; 1st to 4th tergites with wide apical yellow bands. In Iranian specimen, 5th to 7th tergites laterally and hypopygium entirely reddish. Coxae and

trochanters black, with \pm distinct yellow spots; trochantelli yellow. Fore and mid legs mainly yellow. Hind femur red, apically yellow; hind tibia reddish internally and yellow externally; hind tarsus brown or black. Fore wing with weak brown apical spot; pterostigma brown.

♂: Body length 7.5-8.5 mm. Antenna with 35-37 flagellomeres; 1st flagellomere 4.5× longer than wide. Temple shortly parallel behind eye, strongly and roundly narrowed apically, dorsally 0.45× as long as eye. OED 1.3-1.4× ocellar diameter. Frons moderately swollen laterally and strongly impressed medially. Face coarsely punctate. Clypeus 1.8-2.0× wider than long, with scattered punctures. MI 0.9-1.0. Genal carina reaching mandibular base. Lateral pronotal groove and speculum partly smooth. Epicnemial carina low, low carinae on pleural and transversal parts present. Apical transverse carina of propodeum absent. Hind femur 5.6-6.1× longer than wide. Hind claws with short basal teeth. Areolet stalked; 2nd recurrent vein slightly distal to its middle. Nervulus postfurcal by 2× its width.

1st tergite 2.2-2.3× longer than wide, with very scattered fine, setiferous punctures. 2nd tergite 1.2× longer than wide, with very scattered fine punctures. 3rd tergite 1.1-1.15× longer than wide, with scattered fine punctures.

Color: Head yellow. Flagellum except blackish basal flagellomere reddish. Frons, facial stripe below antenna, stemmaticum, occiput, scape dorsally, three stripes on meso-scutum, sutures of pleura, spot on scutellum, propodeum except yellow spots, coxae apically, trochanters and hind tarsus black. Metasoma black; 1st tergite with yellow bands subbasally and apically. 2nd to 5th tergites with wide apical yellow bands. Fore and mid legs, hind coxa dorsally, trochanters and hind tibia yellow; hind femur reddish or brown, yellow apically. Wings without clear brown apical stripe, pterostigma ochreous.

Hosts unknown.

***Syzeuctus vigil* (TOSQUINET, 1900) (Figs 50, 93, 139)**

O r i g i n a l : *Lissonota vigil* TOSQUINET, 1900: 165-167

H o l o t y p e : (♀) "type; Russia Sarepta 1880 B.; collection Dr. J. Tosquinet; *Lissonota vigil* TOSQUINET dét. J. TOSQUINET" (Bruxelles), type studied.

P a r a t y p e : (♂) "cotype; Russia Sarepta 1880 B.; collection Dr. J. Tosquinet; *Lissonota vigil* TOSQUINET dét. J. Tosquinet" (Bruxelles), studied.

S t u d i e d m a t e r i a l : 4♀♀, 4♂♂; Hungary*, Russia, Ukraine*.

D e s c r i p t i o n : ♀: Body length 9-9.5 mm. Antenna with 36 flagellomeres; 1st flagellomere 3.8-4.0× longer than wide and 0.48-0.5× as long as eye. Temple shortly parallel behind eye, strongly and roundly narrowed apically, dorsally c. 0.4-0.45× as long as eye. OED 1.3-1.7× ocellar diameter. Frons densely punctate, not swollen laterally, moderately impressed medially. Face densely punctate. Clypeus 1.7-2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.5-0.6. Upper mandibular tooth slightly larger than lower one. Genal carina reaching mandibular base.

Mesosoma densely punctate, 1.4× longer than high. Frontoventral edge of pronotum moderately curved, lateral pronotal groove smooth or partly rugose. Speculum partly smooth. Epicnemial carina low, carina on pleural part distinct, transversal part with weak or without carina. Apical transversal carina of propodeum strong and complete. Hind femur 4.8-5.3× longer than wide. Hind metatarsus 0.65-0.67× as long as hind femur. 2nd

hind tarsomere 1.3-1.4× longer than 3rd one. Hind claw completely pectinate, moderately bent apically. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus interstitial. Hairs on basal cell slightly shorter than their intervals. Hind wing with 9 distal hamuli.

Metasoma stout. 1st tergite 1.1-1.3× longer than wide, with dense punctures laterally. 2nd tergite 1.25-1.3× wider than long, with coarse dense punctures. 3rd tergite 1.25-1.3× wider than long, with dense punctures. Ovipositor 1.0-1.05× as long as fore wing, 1.15-1.3× longer than metasoma and 2.2-2.3× longer than hind tibia.

Color: Black. Clypeus reddish. Wide frontal orbit and narrow vertical and outer orbits yellow. Mesosoma black or with ± reddish suffusion (f. *rufus* AUBERT); collare, sometimes hind edge or upper margin of pronotum, two to four longitudinal stripes on mesoscutum, tegula, sometimes subtegular ridge, usually spots on mesopleuron and metapleuron, side and apex of scutellum, often spot on postscutellum and sometimes small lateral spots on propodeum yellow. Metasoma black; 2nd and 3rd tergites often with dark reddish-brown suffusion and narrow yellowish apical bands OR 1st to 3rd tergites red (f. *rufus* AUBERT). Coxae and trochanters black; legs otherwise red or brown; fore and mid femora, tibiae and tarsi with yellowish frontal stripes; hind tibia yellowish basally. Fore wing with subapical brown spot; pterostigma brown, cream-yellow proximally.

♂: Body length 6.5-9.5 mm. Antenna with 34-37 flagellomeres; 1st flagellomere 3.4-3.7× longer than wide and 0.45-0.5× as long as eye; preapical flagellomere 1.2× longer than wide. Temple parallel behind eye and moderately narrowed apically, dorsally c. 0.55-0.7× as long as eye. OED 1.3-1.6× and OOD 2.5× ocellar diameter. Frons with rather dense punctures and distinct median impression, ± swollen laterally. Clypeus 1.8-2.0× wider than long, with scattered punctures, apical margin rounded. MI 0.55-0.65. Upper mandibular tooth slightly larger than lower one. Genal carina reaching mandibular base.

Lateral pronotal groove smooth ventrally. Speculum usually with scattered punctures. Epicnemial carina low, low carina on pleural part present, carina on transversal part absent or weak. Apical transversal carina of propodeum complete. Hind femur 4.3-5.3× longer than wide. Hind metatarsus 0.65-0.75× as long as hind femur. 2nd hind tarsomere 1.2-1.25× longer than 3rd one. Hind claw with short teeth, moderately curved apically. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus interstitial or slightly postfurcal by 1× its width. Hind wing with 8 distal hamuli.

Metasoma stout; 1st tergite 1.2-1.4× longer than wide, with rather dense or dense coarse punctures laterally. 2nd tergite 1.05-1.3× wider than long, with coarse dense punctures. 3rd tergite 1.0-1.3× wider than long, with dense but sometimes superficial punctures. Spiracles of 1st to 3rd tergites ± protruding

Color: Black. Clypeus reddish-yellow in apical half. Base of mandible, entire orbits, sometimes malar space and sometimes transverse stripe on occiput yellow. Mesosoma black; collare and upper margin of pronotum, two paramedian stripes on mesoscutum, tegula, two spots on mesopleuron and spot on metapleuron, side and apex of scutellum and postscutellum yellow). Metasoma black, sometimes 2nd and 3rd tergites often dark reddish-brown; in paratype 5th to 7th tergites with yellow apical bands, but sometimes all tergites with yellow apical bands; 1st tergite often with yellow basal spots. Coxae and trochanters black, usually with yellow stripes; fore and mid legs reddish or yellow, femora sometimes with caudal brown stripes; hind femur reddish or brown, sometimes

yellowish dorsally, with apical yellow spot; hind tibia yellowish, often brownish internally and/or apically; hind tarsomeres yellow, with brownish tips. Fore wing (without or) with subapical brown spot; pterostigma brown, cream-yellow proximally.

Hosts unknown.

Syzeuctus spec. 1

M a t e r i a l : (♂) "[red label]; [hand-written] Alai Geb.; Zool. Mus. Berlin" (Berlin).

D e s c r i p t i o n : Body length 8-9 mm. Antenna with 38 flagellomeres; 1st flagellomere 4.4× longer than wide and 0.67× as long as eye; preapical flagellomere 1.2× longer than wide. Temple strongly and roundly narrowed behind eye, dorsally 0.4× as long as eye. OED 1.7× and OOD 1.8× ocellar diameter. Face densely punctate, shining. Clypeus 1.7× wider than long, with scattered punctures, apical margin rounded. MI 0.85. Genal carina reaching mandibular base.

Epicnemial carina low, with dentiform carina on transversal part. Speculum partly smooth. Propodeum densely and coarsely punctate, with complete apical transversal carina. Legs slender; hind femur 6.2× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Hind claw with basal teeth, moderately bent apically. Areolet stalked; 2nd recurrent vein in its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell much as long as their intervals. Hind wing with 8 distal hamuli.

1st tergite 2.4× longer than wide, with scattered punctures laterally. 2nd tergite 1.3× longer than wide, with scattered punctures, shining. 3rd tergite 1.3× longer than wide, with scattered superficial punctures.

Color: Black. Flagellum black. Head yellow; mandibular teeth, frons medially, stemmaticum and occiput black. Mesosoma mainly yellow; three stripes on mesoscutum, scuto-scutellar groove, ventral and posterior margins of pronotum, wide margins of mesopleuron, mesosternum, margins of metapleuron and two oblique paramedian stripes on propodeum black. Tergites black; 1st to 6th tergites with wide apical yellow bands. 1st to 3rd tergites with basal yellow bands. Fore and mid legs yellow. Hind coxa black, yellow dorsally; hind trochanter black; hind trochantellus yellow; hind femur black, with dorsal yellow stripe; hind tibia yellow, infuscate in apical 0.3; hind tarsomeres black, basally and apically shortly yellowish. Fore wing with weak apical brown spot; pterostigma brown.

R e m a r k : This ♂ with a complete apical propodeal carina probably belongs to a new species, but is not named here due to the unexact information of the location on the label and the unknown opposite sex. It resembles the ♀ of *S. coreanus* UCHIDA, but differs by the very scattered punctures of basal tergites (densely punctate in *S. coreanus*). From the ♂ of *S. longivalvator* AUBERT, it can be differentiated by slenderer legs and the elongate basal tergites.

Syzeuctus spec. 2

M a t e r i a l : (♂) "Mongolia, Cojbalsan aimak, 15 km N von Somon Galuut, 850 m, Exp. Dr. Kabzab, 1965 - Nr. 433, 17.VIII.1965" (Budapest).

D e s c r i p t i o n : Body length 10 mm. Antenna with 41 flagellomere; 1st flagellomere 4.1× longer than wide and 0.63× as long as eye. Temple less strongly

narrowed. OED 1.8-1.9× and OOD 2.3× ocellar diameter. MI 0.7-0.8. Hairs on head and mesosoma shorter. Hind femur 5.2× longer than wide. Hind metatarsus 0.75× as long as hind femur. 2nd hind tarsomere 1.4× longer than 3rd one. Areolet stalked; 2nd recurrent vein in or distal to its middle. Nervulus postfurcal by 2× its width. Hairs on basal cell longer than their intervals. Hind wing with 9-10 distal hamuli.

1st tergite 1.75× longer than wide, rather densely punctate. 2nd tergite 1.1× longer than wide, densely punctate; 3rd tergite 1.0× as long as wide, with dense superficial punctures.

Color: Black. Palps, face and antenna black. Apical clypeus, malar space, mandible, complete orbits yellow. Mesosoma black; hook-shaped spot on mesoscutum, tegula, subtegular ridge, two small spots on mesopleuron, spot on metapleuron, and anterolateral spots on scutellum yellow. 1st tergite apically, 2nd and 3rd tergites completely and 4th tergite basally red. Coxae and trochanters black, frontal spots on fore and mid coxae and trochanters and all trochantelli yellow. Fore and mid femora, tibiae and tarsi yellow frontally, reddish dorsally; hind femur black, yellow apically; hind tibia yellow, infuscate in apical 0.2; hind tarsus blackish in apical 2/3. Pterostigma blackish, yellow proximally.

R e m a r k : This species belongs to the *petiolaris*-group but differs from the ♂♂ of *S. petiolaris* (GRAVENHORST) and *S. hyalinipennis* SZÉPLIGETI by the more extended yellow color pattern on the mesosoma. As mentioned above (see remark under *S. hyalinipennis*), more material from Central and Eastern Asia will be necessary to solve the taxonomy of the East Palearctic members of the *petiolaris*-species group.

Species incertae sedis

Syzeuctus flavimargo MEYER, 1926

H o l o t y p e : (♀) "Odessa, 6.VII.1923, leg. L.S. Zimin" (St. Petersburg?). Type not studied and actually not found in the collection in St. Petersburg (personal communication of D.R. KASPARYAN).

T r a n s l a t i o n o f o r i g i n a l D e s c r i p t i o n : Apical transversal carina of propodeum absent. Head and mesosoma coarsely punctate. Metasoma matte, densely finely punctate. 1st to 4th tergites longer than wide, following tergites transverse. Ovipositor as long as the metasoma.

Color: Antenna red, blackish basally. Mesosoma yellowish, with black spots, scutellum and postscutellum yellow, tegula ivory. Metasoma red, all tergites with wide yellow apical bands, 1st tergite without yellow lateral spots. Legs reddish-yellow, coxae red and yellow, trochanters blackish. Wings almost hyaline, pterostigma dark brown. ♂ as the ♀.

R e m a r k : According to AUBERT (1978: 128), the species differs from *S. dusmeti* and *S. robustus* by its color pattern and matt metasoma with dense punctures, but it seems doubtful if AUBERT had really seen the type material of *S. flavimargo* in St. Petersburg.

Zusammenfassung

In dieser taxonomischen Revision der Gattung *Syzeuctus* FÖRSTER werden 46 verschiedene Arten aus der Westpaläarkt und Zentral-Asien besprochen.

18 dieser Taxa werden als neu beschrieben: *Syzeuctus altaicus* nov.sp., *Syzeuctus brevipunctatus*

nov.sp., *Syzeuctus brunneomaculatus* nov.sp., *Syzeuctus flagellator* nov.sp., *Syzeuctus flavator* nov.sp., *Syzeuctus flavomaculatus* nov.sp., *Syzeuctus frontator* nov.sp., *Syzeuctus hyalinus* nov.sp., *Syzeuctus ibericus* nov.sp., *Syzeuctus kabzabi* nov.sp., *Syzeuctus kazakhstanicus* nov.sp., *Syzeuctus maroccanus* nov.sp., *Syzeuctus mongolicus* nov.sp., *Syzeuctus paraturcator* nov.sp., *Syzeuctus persicus* nov.sp., *Syzeuctus pseudoceballosi* nov.sp., *Syzeuctus ruficoxis* nov.sp. und *Syzeuctus rufigaster* nov.sp.

Folgende neue Synonyme werden festgestellt: *Syzeuctus pallidator* AUBERT, 1966 ist synonym zu *Syzeuctus crassitarsis* TELENGA, 1930; *Lissonota puberula* KRIECHBAUMER, 1895 und *Syzeuctus schmiedeknechti* BRAUNS, 1901 sind synonym zu *Syzeuctus exsculptus* (FONSCOLOMBE, 1854); *Syzeuctus quadripunctorius* KISS, 1929 und *Syzeuctus rufipes* KISS, 1933 sind synonym zu *Syzeuctus tenuifasciatus* SCHMIEDEKNECHT, 1900.

Von *Syzeuctus hyalinipennis* SZÉPLIGETI, 1901, *Syzeuctus kasparyator* AUBERT, 1977 und *Syzeuctus longigenus* UCHIDA, 1940 werden die bisher unbekannten Männchen beschrieben.

Alle Arten werden detailliert beschrieben und illustriert und in für Weibchen und Männchen getrennten Bestimmungsschlüsseln eingeordnet.

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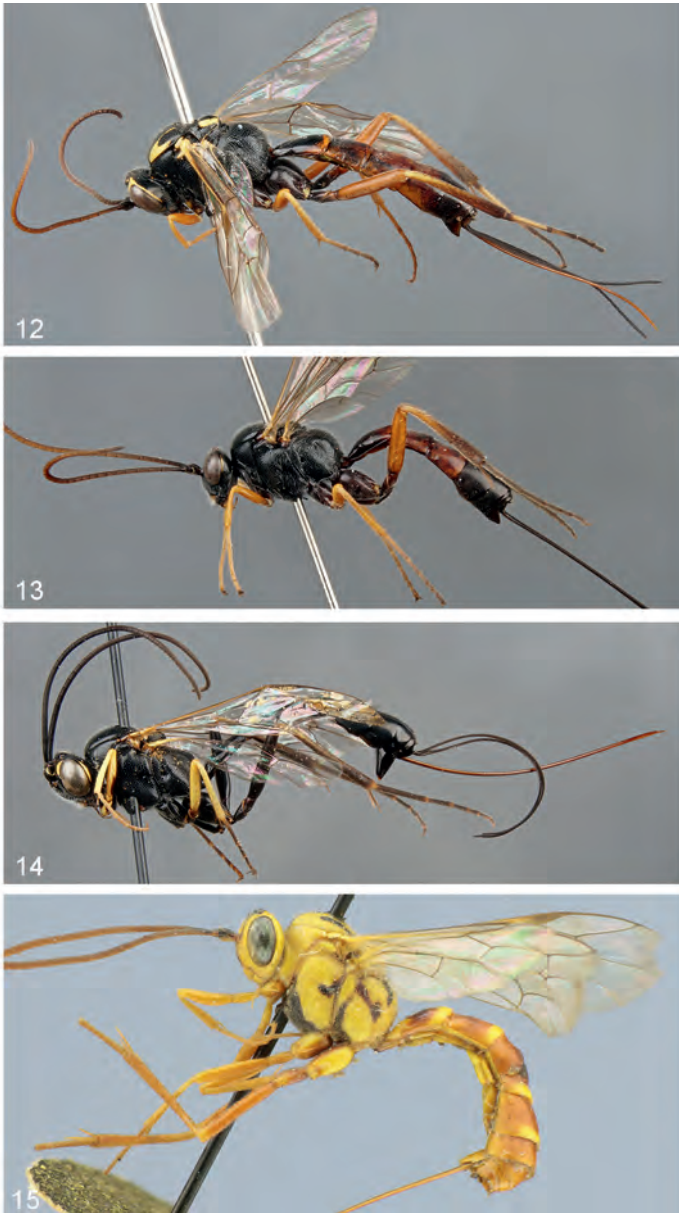


Figs 1-6: Habitus of ♀♀ from dorsal: (1) *Syzeuctus altaicus* nov.sp. HT (holotype), (2) *S. flagellator* nov.sp. HT, (3) *S. hyalinus* nov.sp. HT, (4) *S. flavator* nov.sp. HT (♂), (5) *S. frontator* nov.sp. HT, (6) *S. maroccanus* nov.sp. HT.



Figs 7-9: Habitus of ♀♀ from dorsal: (7) *Syzeuctus mongolicus* nov.sp. HT, (8) *S. longigenus* UCHIDA, (9) *S. rufigaster* nov.sp. HT.

Figs 10-11: Habitus from lateral: (10) *Syzeuctus brunneomaculatus* nov.sp. HT (♀), (11) *S. flavator* nov.sp. HT (♂).



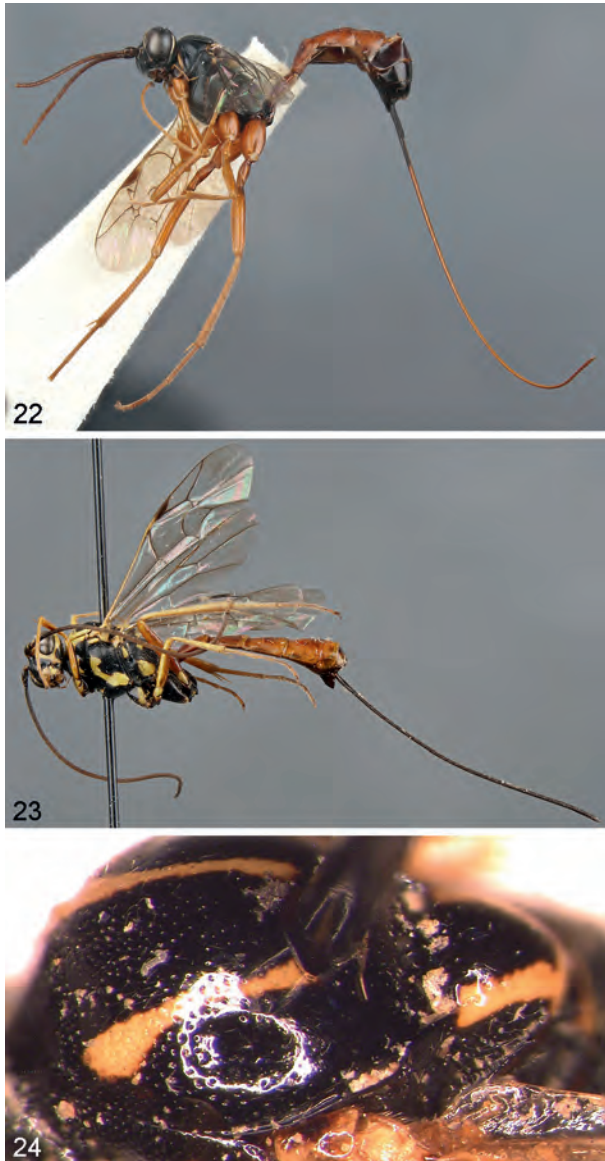
Figs 12-15: Habitus of ♀♀ from lateral: (12) *Syzeuctus altaicus* nov.sp. HT, (13) *S. flagellator* nov.sp. HT, (14) *S. frontator* nov.sp. HT, (15) *S. robustus* TELENGA LT (lectotype).



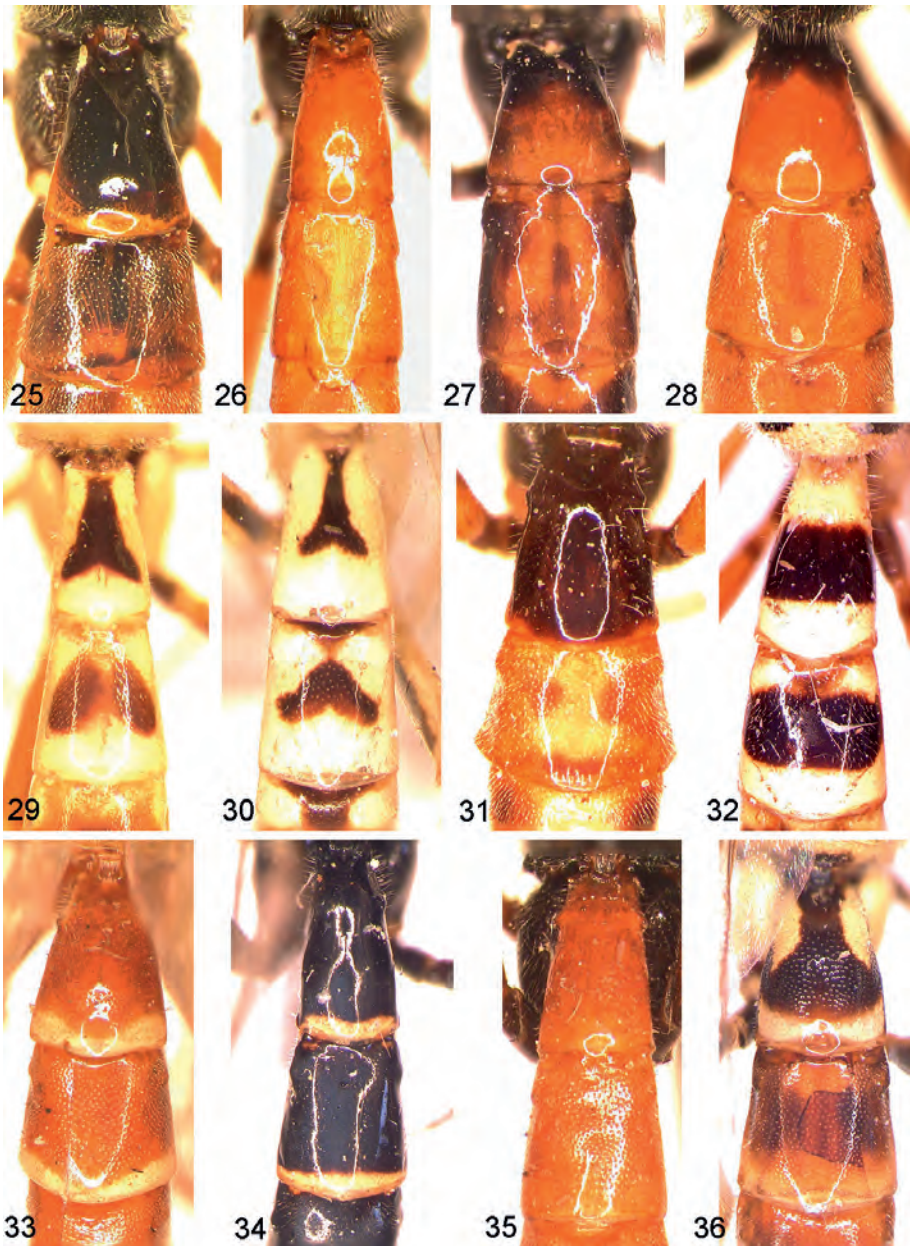
Figs 16-18: Habitus of ♀♀ from lateral: (16) *Syzeuctus hyalinus* nov.sp. HT, (17) *S. ibericus* nov.sp. HT, (18) *S. maroccanus* nov.sp. HT.



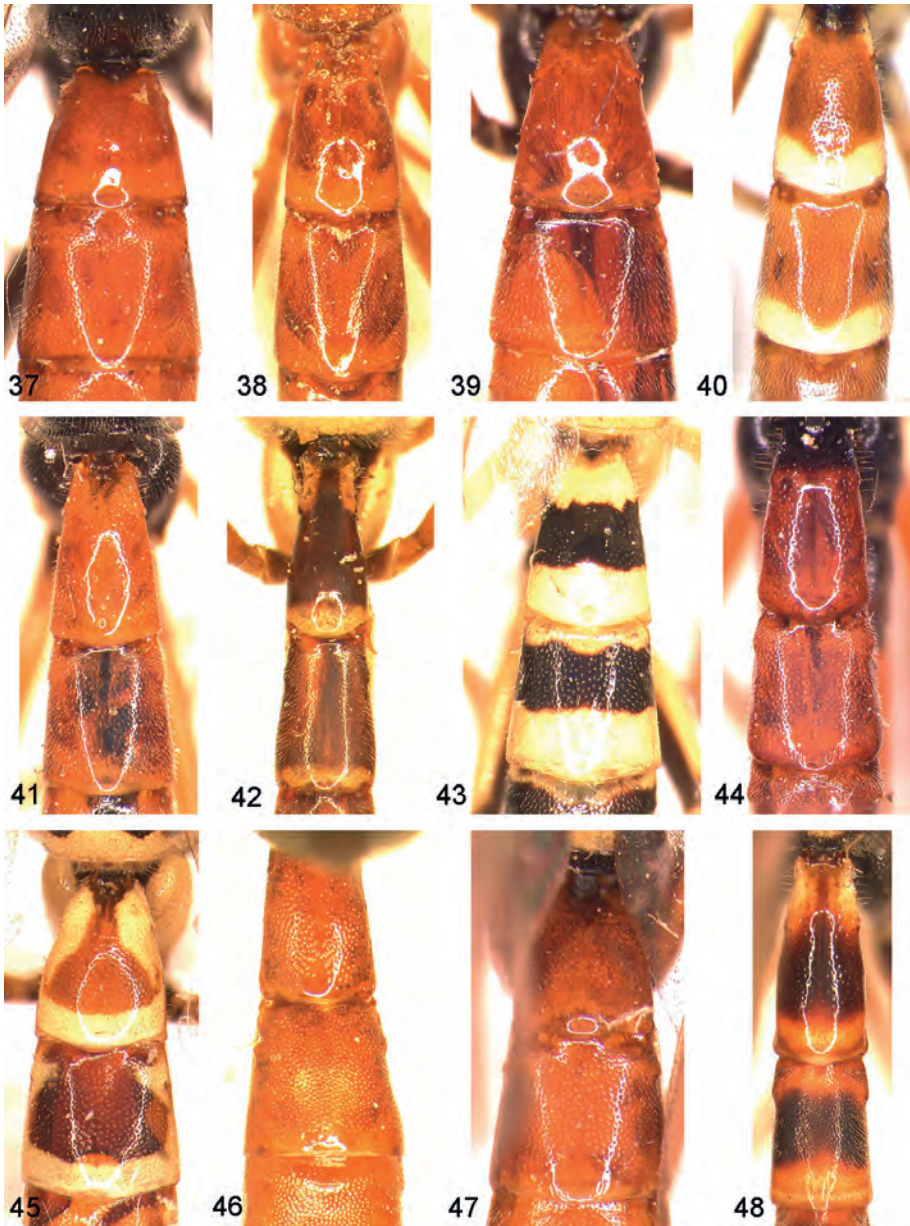
Figs 19-21: Habitus from lateral: (19) *Syzeuctus mongolicus* nov.sp. HT, (20) *S. persicus* nov.sp. HT, (21) *S. longigenus* UCHIDA.



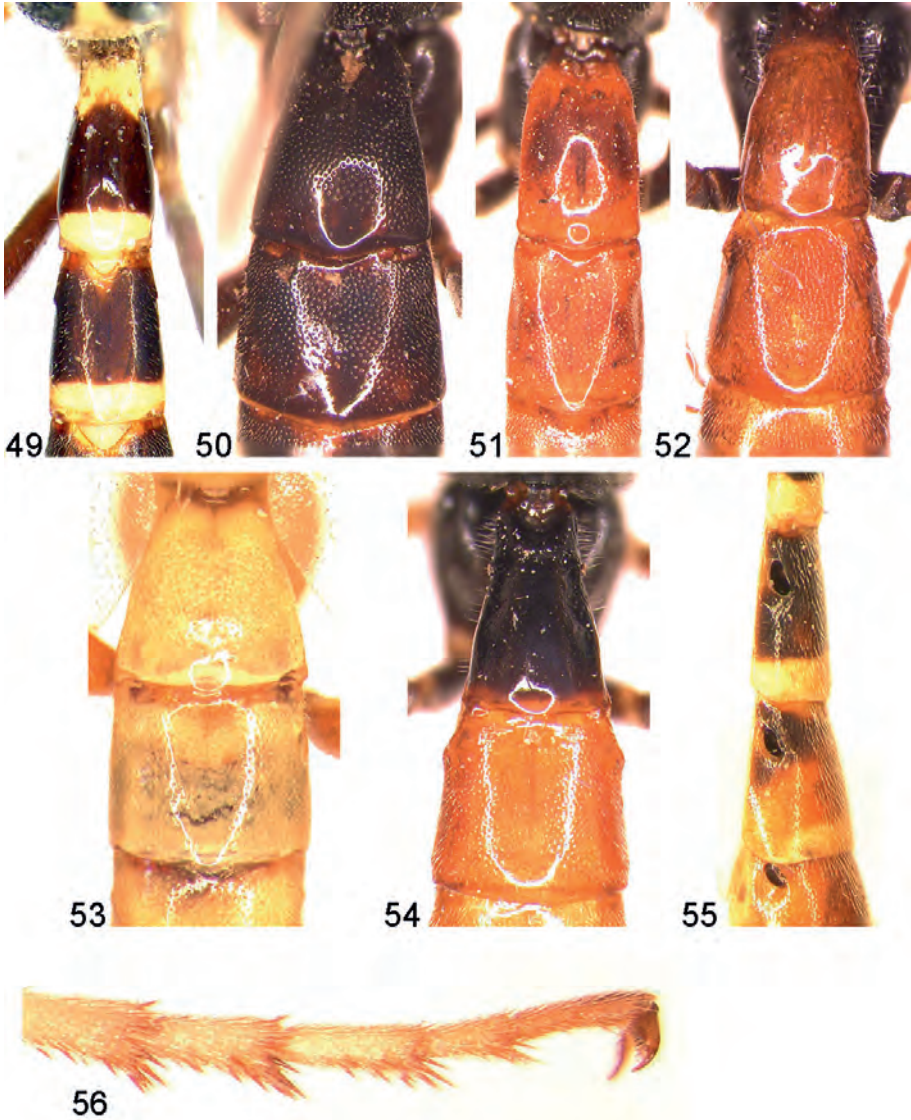
Figs 22-23: Habitus from lateral: (22) *Syzeuctus ruficoxis* nov.sp. HT, (23) *S. rufigaster* nov.sp. HT. **Fig. 24:** Mesoscutum of *Syzeuctus brevipunctatus* nov.sp. HT.



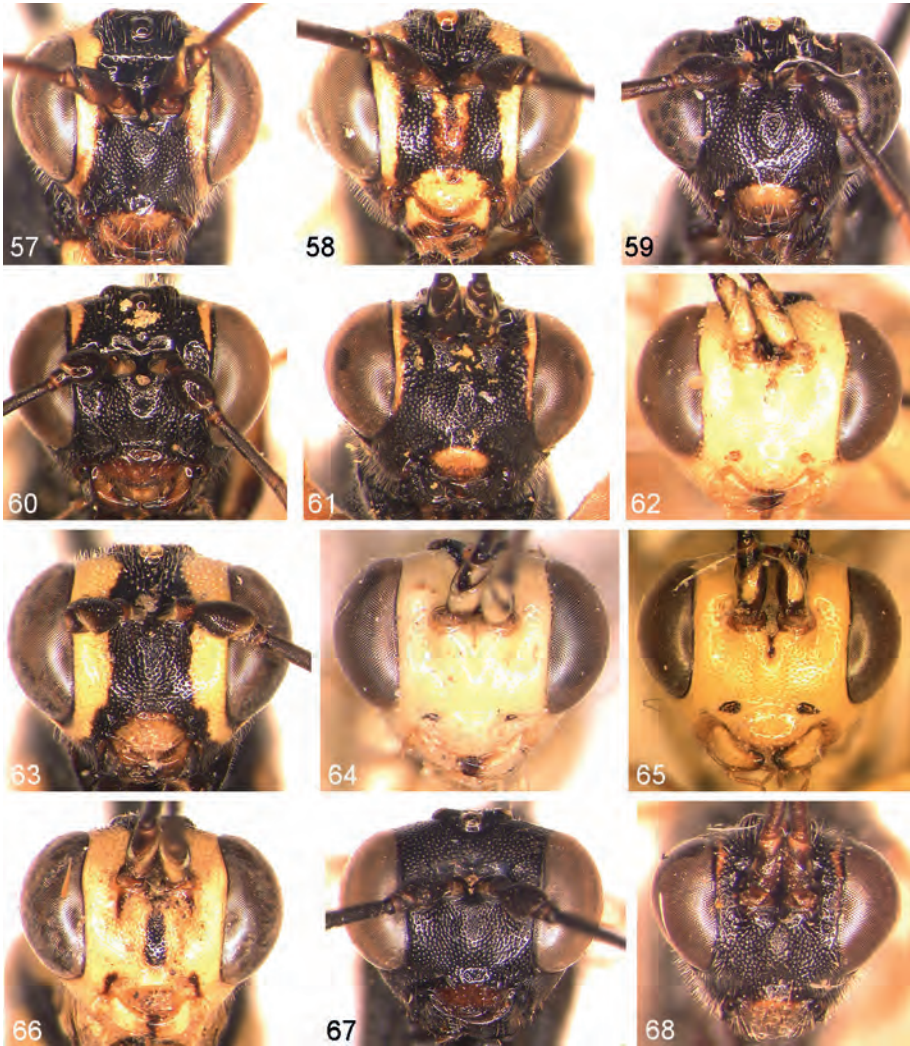
Figs 25-36: Basal tergites of ♀♀ from dorsal: (25) *Syzeuctus altaicus* nov.sp. HT, (26) *S. bicornis* (GRAVENHORST), (27) *S. brevipunctatus* nov.sp. HT, (28) *S. caper* (SEYRIG), (29) *S. caudulator* AUBERT, (30) *S. crassitarsis* TELENGA, (31) *S. flagellator* nov.sp. PT, (32) *S. flavomaculatus* nov.sp. HT, (33) *S. decoratus* (COSTA) (= *S. formosa* TOSQUINET HT), (34) *S. frontator* nov.sp. HT, (35) *S. hyalinipennis* SZÉPLIGETI, (36) *S. hyalinus* nov.sp. HT.



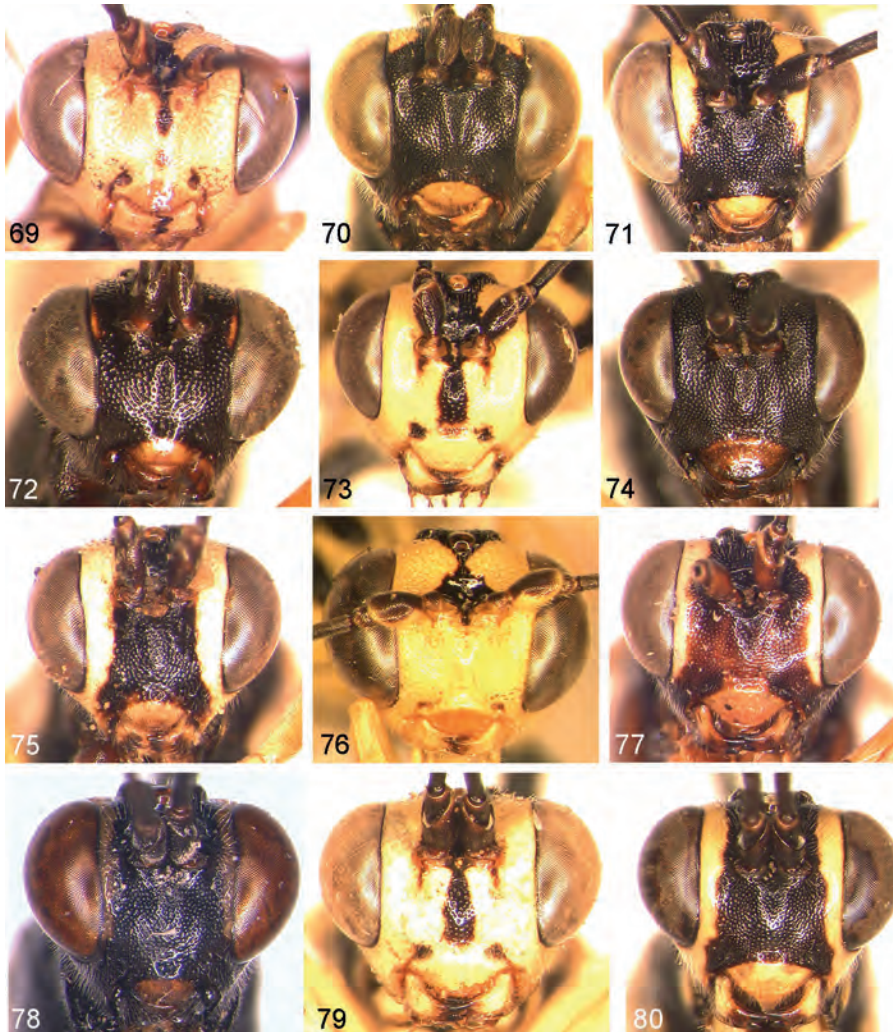
Figs 37-48: Basal tergites of ♀♀ from dorsal: (37) *Syzeuctus inaequalis* (FONSCOLOMBE), (38) *S. kaszabi* nov.sp. HT, (39) *S. leo* (SEYRIG), (40) *S. longivalvator* AUBERT, (41) *S. maculipennis* (COSTA), (42) *S. maroccanus* nov.sp. HT, (43) *S. mongolicus* nov.sp. HT, (44) *S. exsculptus* (FONSCOLOMBE), (45) *S. longigenus* UCHIDA, (46) *S. ruficoxis* nov.sp. HT, (47) *S. rufigaster* nov.sp. HT, (48) *S. szilagysagiensis* KISS.



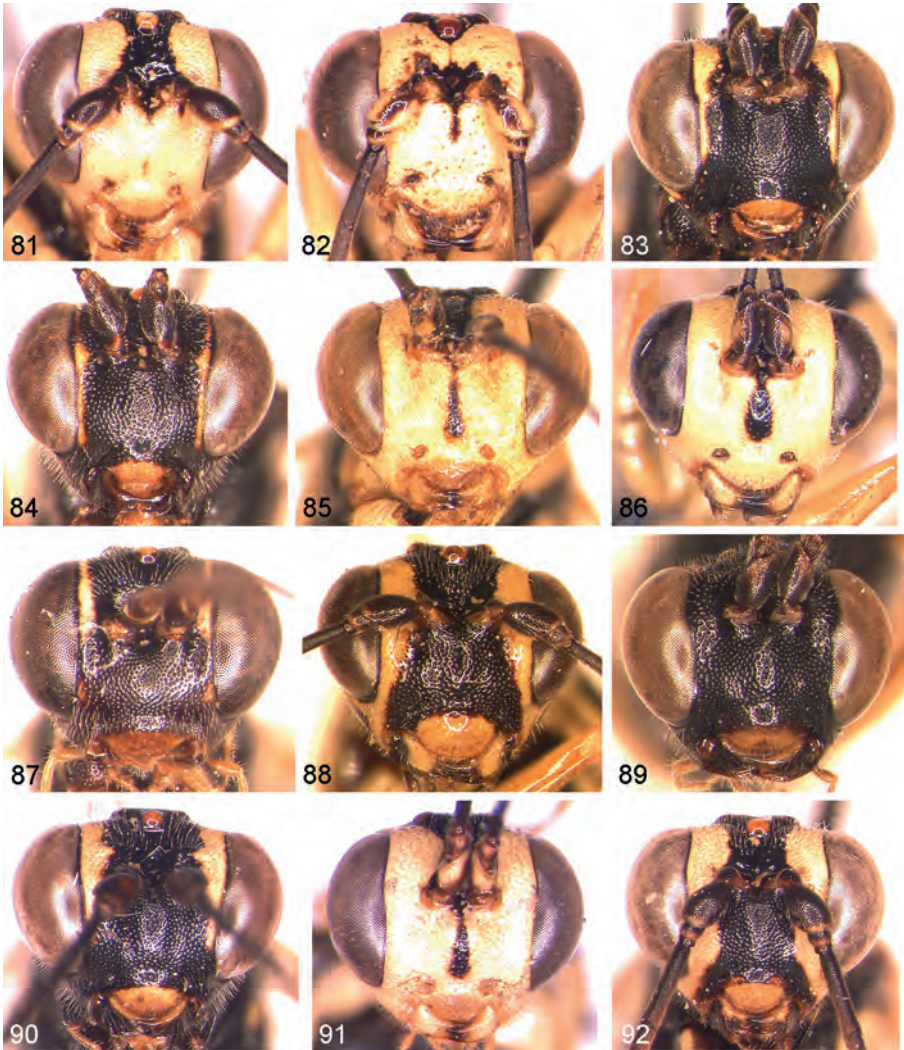
Figs 49-52: Basal tergites of ♀♀ from dorsal: (49) *Syzeuctus tigris* SEYRIG, (50) *S. vigil* (TOSQUINET) HT, (51) *S. ibericus* nov.sp. HT, (52) *S. kazakhstanicus* nov.sp. PT. **Figs 53-55:** Basal tergites of ♂♂: (53) *Syzeuctus flavator* nov.sp. HT, (54) *S. flagellator* nov.sp., (55) *S. dusmeti* SEYRIG with enlarged tergal spiracles, from lateral. **Fig. 56:** Hind tarsomere of *Syzeuctus crassitarsis* TELENGA ♀.



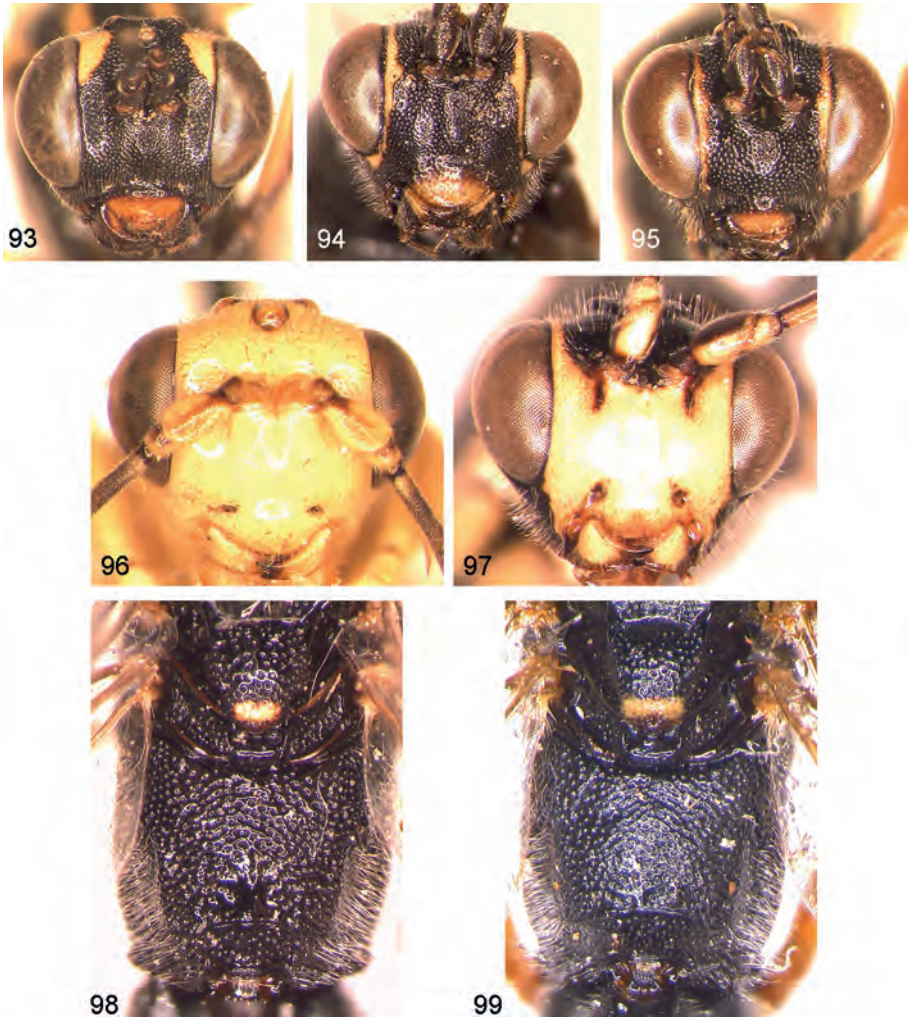
Figs 57-68: Faces of ♀♀ from frontal: (57) *Syzeuctus altaicus* nov.sp. HT, (58) *S. bicolor* SZÉPLIGETI, (59) *S. bicornis* (GRAVENHORST), (60) *S. brevipunctatus* nov.sp. HT, (61) *S. caper* (SEYRIG), (62) *S. caudulator* SHAUMAR, (63) *S. ceballosi* SEYRIG, (64) *S. crassitarsis* TELENGA, (65) *S. decoratus* (COSTA), (66) *S. dusmeti* SEYRIG, (67) *S. exsculptus* (FONSCOLOMBE), (68) *S. flagellator* nov.sp. PT.



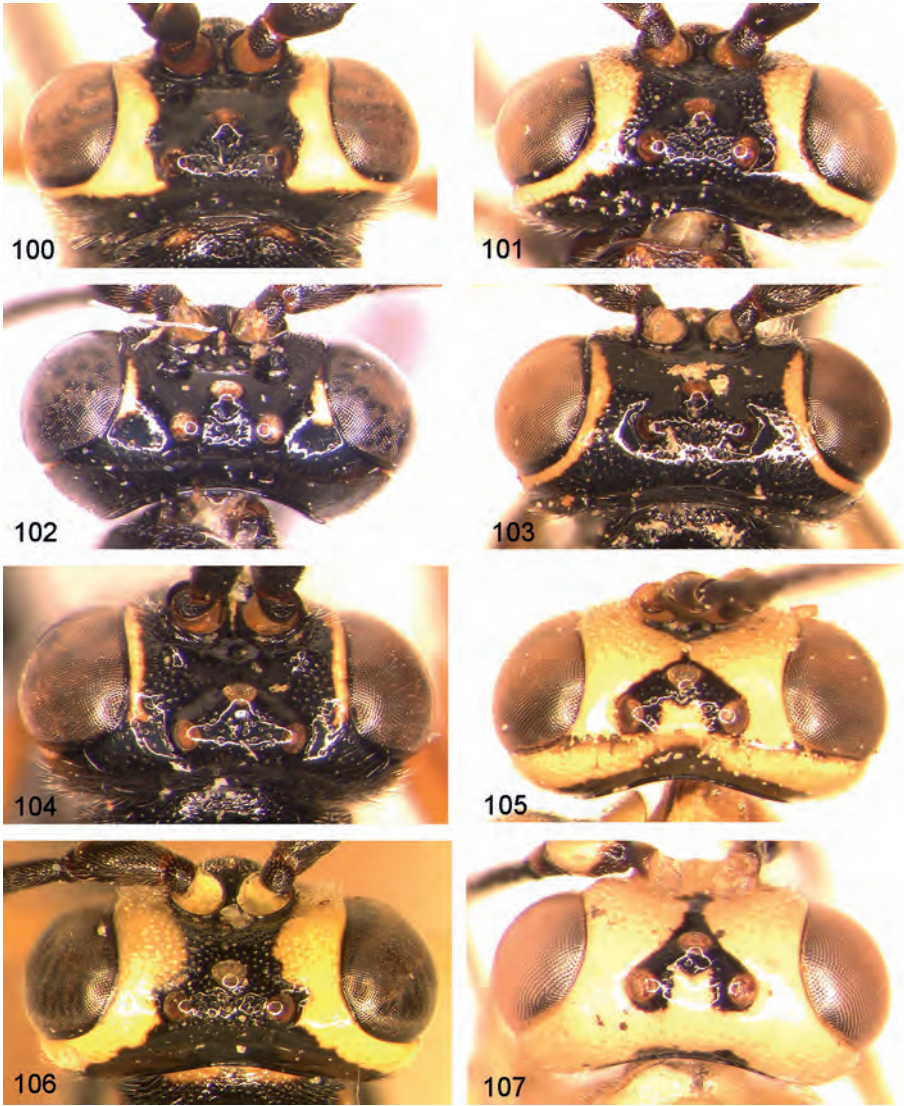
Figs 69-80: Faces of ♀♀ from frontal: (69) *S. flavomaculatus* nov.sp. HT, (70) *S. frontator* nov.sp. HT, (71) *S. fuscator* (PANZER), (72) *S. hyalinipennis* SZÉPLIGETI HT, (73) *S. hyalinus* nov.sp. HT, (74) *S. inaequalis* (FONSCOLOMBE), (75) *S. irrisorius* (ROSSI), (76) *S. kasparvator* AUBERT, (77) *S. kabzabi* nov.sp. HT, (78) *S. leo* (SEYRIG), (79) *S. longivalvator* AUBERT, (80) *S. maculipennis* (COSTA).



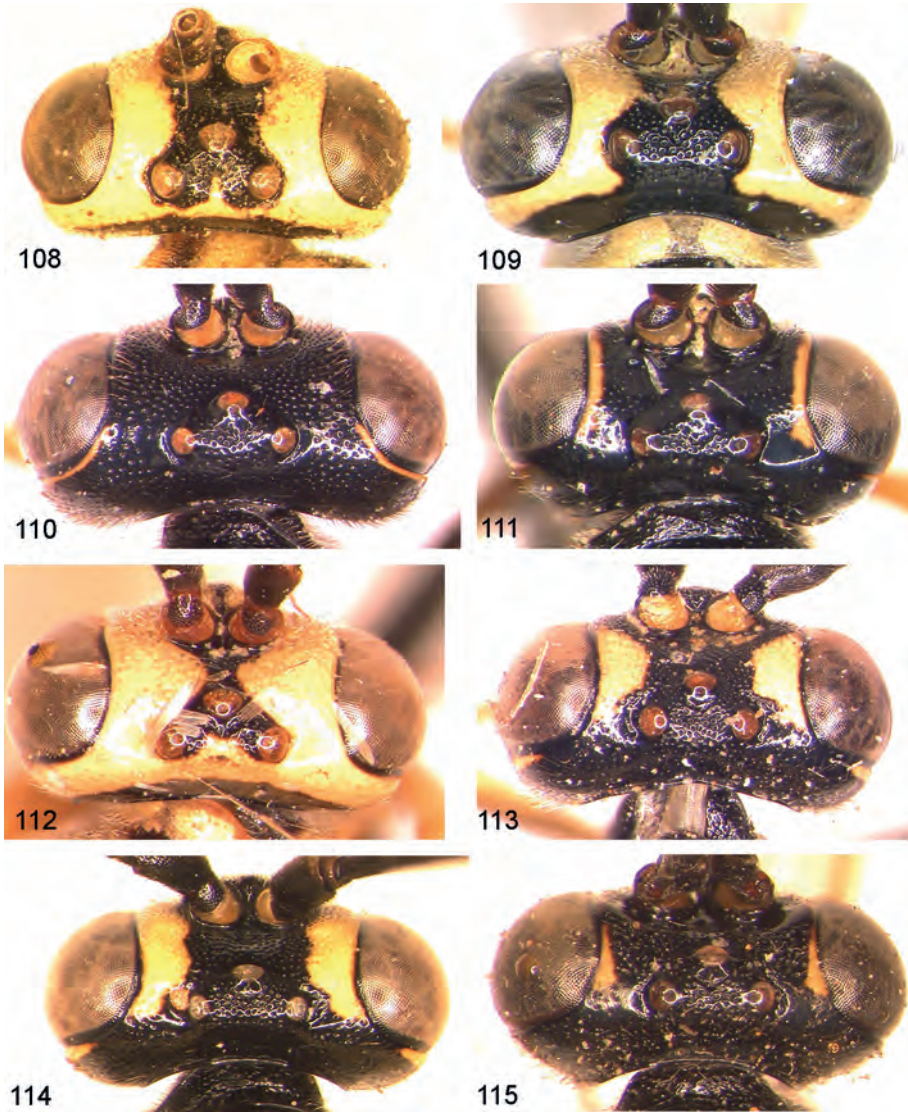
Figs 81-92: Faces of ♀♀ from frontal: (81) *S. maroccanus* nov.sp., (82) *S. mongolicus* nov.sp. PT, (83) *S. paraturcator* nov.sp. HT, (84) *S. petiolaris* (GRAVENHORST), (85) *S. pseudoceballosi* nov.sp. HT, (86) *S. longigenus* UCHIDA, (87) *S. ruficoxis* nov.sp. HT, (88) *S. rufigaster* nov.sp. HT, (89) *S. szilagysagiensis* KISS, (90) *S. tenuifasciatus* SCHMIEDEKNECHT, (91) *S. tigris* SEYRIG, (92) *S. turcator* AUBERT.



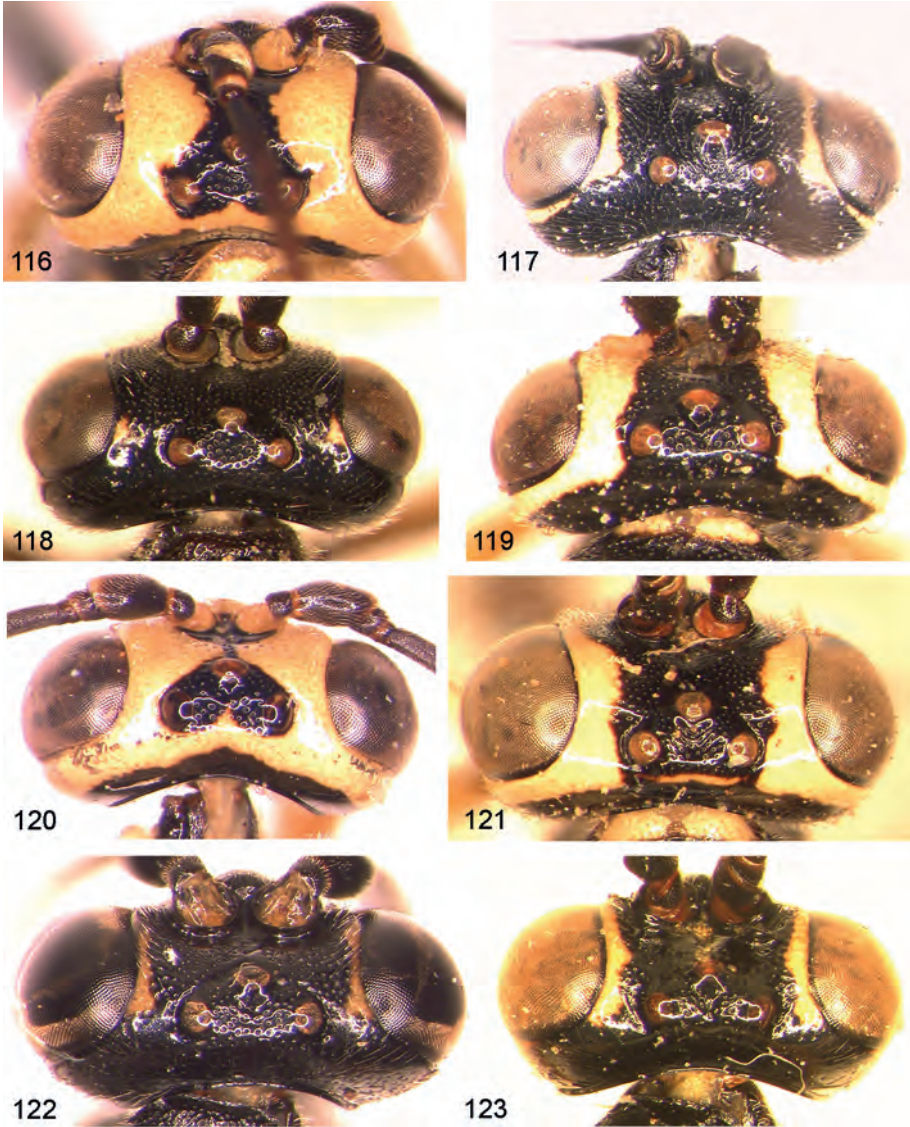
Figs 93-95: Faces of ♀♀ from frontal: (93) *Syzeuctus vigil* (TOSQUINET) HT, (94) *S. ibericus* nov.sp. HT, (95) *S. kazakhstanicus* nov.sp. PT. **Figs 96-97:** Faces of ♂♂ from frontal: (96) *Syzeuctus flavator* nov.sp. HT, (97) *S. flagellator* nov.sp. PT. **Figs 98-99:** Propodeum (98) *Syzeuctus kazakhstanicus* nov.sp. ♂, (99) *S. petiolaris* (GRAVENHORST) ♂.



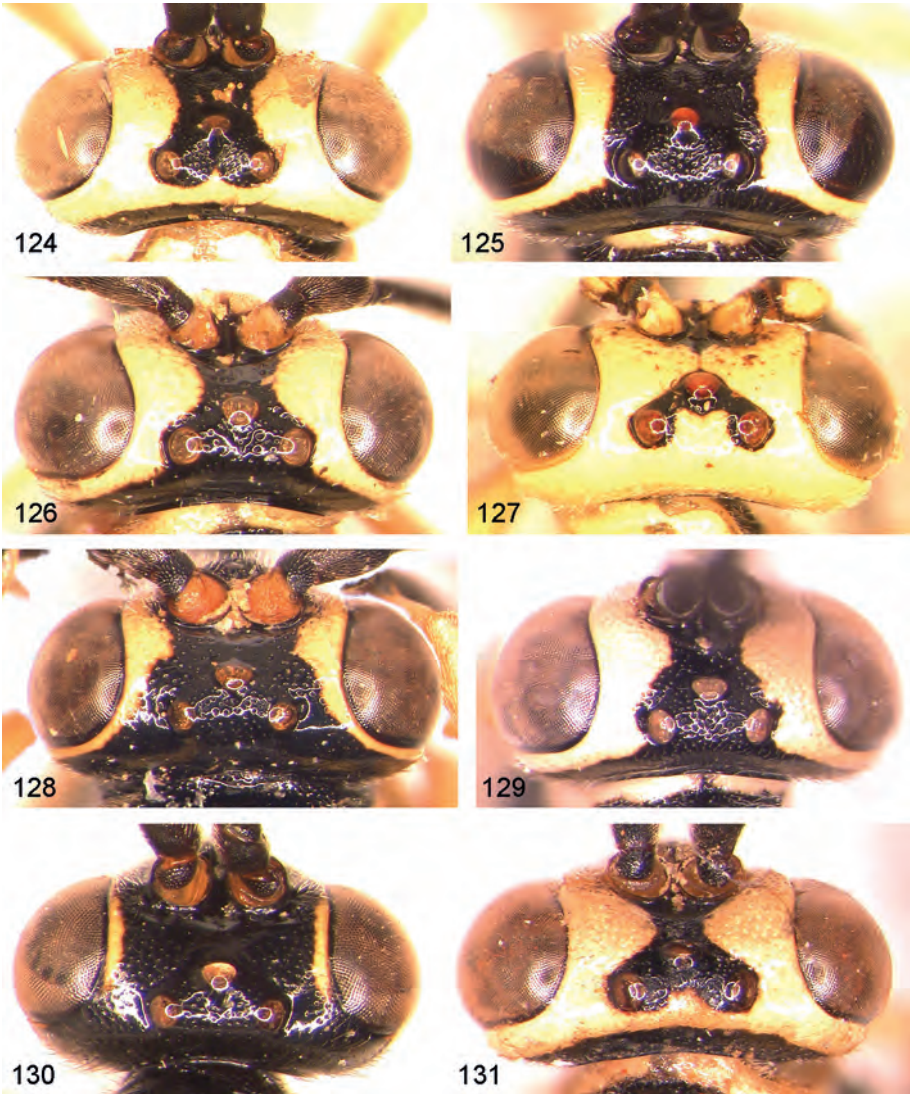
Figs 100-107: Heads of ♀♀ from dorsal: (100) *S. altaicus* nov.sp. HT; (101) *S. bicolor* SZÉPLIGETI, (102) *S. bicornis* (GRAVENHORST), (103) *S. brevipunctatus* nov.sp. HT, (104) *S. caper* (SEYRIG), (105) *S. caudulator* SHAUMAR, (106) *S. ceballosi* SEYRIG, (107) *S. crassitarsis* TELENGA.



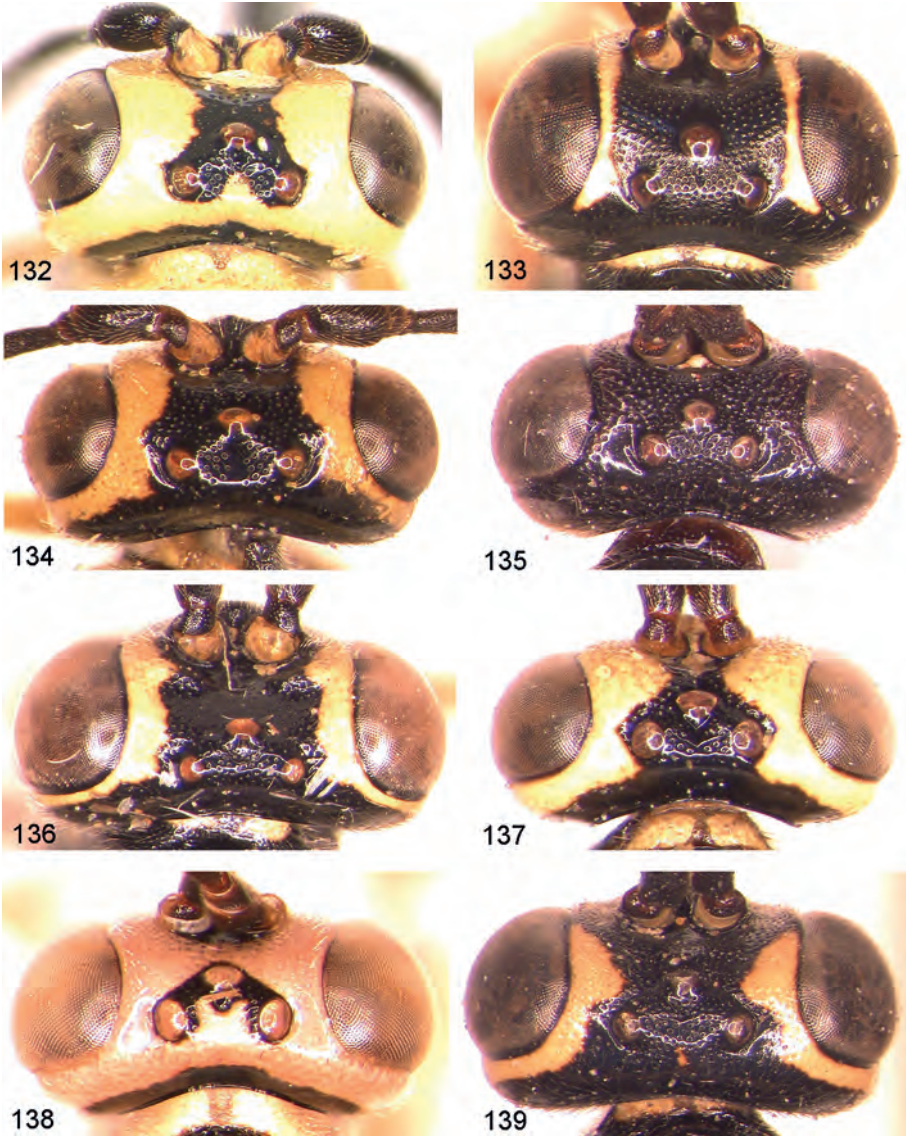
Figs 108-115: Heads of ♀♀ from dorsal: (108) *Syzeuctus decoratus* (COSTA), (109) *S. dusmeti* SEYRIG, (110) *S. exsculptus* (FONSCOLOMBE), (111) *S. flagellator* nov.sp. PT, (112) *S. flavomaculatus* nov.sp. HT, (113) *S. frontator* nov.sp. HT, (114) *S. fuscator* (PANZER), (115) *S. hyalinipennis* SZÉPLIGETI HT.



Figs 116-123: Heads of ♀♀ from dorsal: (116) *Syzeuctus hyalinus* nov.sp. HT, (117) *S. ibericus* nov.sp. HT, (118) *S. inaequalis* (FONSCOLOMBE), (119) *S. irrisorius* (ROSSI), (120) *S. kasparyator* AUBERT, (121) *S. kabzabi* nov.sp. HT, (122) *S. kazakhstanicus* nov.sp. PT, (123) *S. leo* (SEYRIG).



Figs 124-131: Heads of ♀♀ from dorsal: (124) *S. longivalvator* AUBERT, (125) *S. maculipennis* (COSTA), (126) *S. maroccanus* nov.sp. HT, (127) *S. mongolicus* nov.sp. HT, (128) *S. paraturcator* nov.sp. HT, (129) *S. persicus* nov.sp. HT, (130) *S. petiolaris* (GRAVENHORST), (131) *S. pseudoceballosi* nov.sp. HT.



Figs 132-139: Heads of ♀♀ from dorsal: (132) *S. longigenus* UCHIDA, (133) *S. ruficoxis* nov.sp. HT, (134) *S. rufigaster* nov.sp. HT, (135) *S. szilagysagiensis* KISS (= *elegans* SZÉPLIGETI HT), (136) *S. tenuifasciatus* SCHMIEDEKNECHT, (137) *S. tigris* SEYRIG, (138) *S. turcator* AUBERT, (139) *S. vigil* (TOSQUINET) HT.

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