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NEW SPECIES OF THE SUBFAMILY EUPHORINAE (HYMENOPTERA, BRACONIDAE) FROM EAST PALAEARCTIC. PART III

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***Leiophron (Peristenus) suifunensis* Belokobylskij, sp. n.**

Figs 219-225

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Ussuriysk, dry meadow, 15.VI 1993 (S.B.) [ZISP].

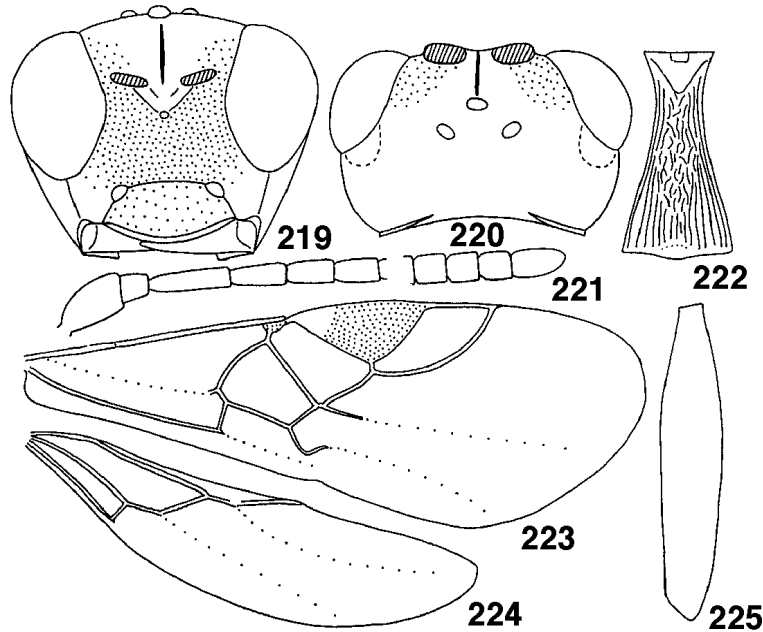
DESCRIPTION. FEMALE. Body length 3.0 mm; fore wing length 2.4 mm. Width of head 1.8 times its median length, 1.35 times width of mesoscutum. Temples behind eyes distinctly roundly narrowed; transverse diameter of eye 1.3 times length of temple (1.3 times on straight line). Frons weakly convex, with fine median carina. Ocelli in triangle with base 1.5 times its lateral sides; *POL* twice *Od*, 0.9 times *OOL*. Eye with very sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height almost equal to basal width of mandible, 0.3 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.1-1.2 times its median height, 0.7 times height of eye. Distance between tentorial pits 2.5 times distance from pit to eye. Width of clypeus 2.2 times its median height, 1.25 times width of face. Head distinctly and almost linearly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna thickened, filiform, 22-23-segmented. Scape 1.7 times as long as wide. First flagellar segment 3.4 times as long as its apical width, 1.4 times as long as second segment. Length of penultimate segment equal to its width, 0.4 times length of apical segment.

Thorax. Length 1.6 times its maximum height. Notauli deep, narrow, complete, crenulate. Prescutellar depression long, with median carina, sparsely crenulate, 0.5 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather narrow, sparsely punctulate-rugulose. Sternauli shallow, rather wide, oblique, crenulate, with distinct shallow and rather narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with crenulate, oblique and very shallow furrow from mesopleural pit to sternauli.

Wings. Length of fore wing 2.7 times its width. Length of pterostigma 2.3 times its maximum width. Radial cell 2.6 times as long as wide. Metacarpus 0.4 times as long as pterostigma, as long as width of pterostigma. Radial vein arising slightly behind middle of pterostigma, its second abscissa regularly curved. First radial abscissa short. Recurrent vein weakly antefurcal, 0.7 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.5 times nervulus length. Second abscissa of longitudinal anal vein unsclerotized basally. In hind wing, basal vein 1.2 times as long as second abscissa of mediocubital vein, 1.9 times as long as third abscissa of costal vein.

Legs. Hind femur 4.8 times as long as wide. Hind tarsus almost as long as hind tibia, its second segment 0.4 times as long as first segment, 1.2 times as long as fifth



Figs 212-225. *Leiophron (Peristenus) suifunensis* sp. n. 219) head, frontal view; 220) head, dorsal view; 221) basal and apical segments of antenna; 222) first abdominal tergite; 223) fore wing; 224) hind wing; 225) hind femur.

segment (without pretarsus). Fifth segment of fore and of middle legs weakly thickened. Claws simple.

Abdomen. First tergite rather narrow basally, widened posteriorly, without spiracular tubercles, with very small dorsope. Apical width of first tergite 2.4 times its minimum width, length 1.7 times its apical width. Length of second and third tergites combined 3 times basal width of second tergite, 1.6 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons almost smooth; face densely and finely punctulate; clypeus finely and sparsely punctulate. Median lobe of mesoscutum rather densely and finely punctulate, lateral lobes smooth in posterior half, punctulate in anterior half. Scutellum almost smooth. Mesopleura sparsely and rather finely punctulate. Propodeum coarsely and densely rugulose-reticulate, with short semicircular punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite striate, narrowly rugose medially. Mesoscutum almost entirely setose. Clypeus entirely with rather dense long and short hairs.

Colour. Body black, head behind eyes upper with small reddish spots, clypeus reddish brown; abdomen behind first tergite dark reddish brown. Antennae brownish yellow, brown in apical 1/5. Palpi pale yellow. Legs yellow. Wings hyaline. Pterostigma brown, pale yellow in basal 1/3.

MALE unknown.

DISCUSSION. The new species is closely similar to *L. (P.) montanus* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the first flagellar segment wide, penultimate segment square, temple shorter, occipital carina fused with hypostomal one by additional rugae, face narrow, head with red spots behind eyes. The new species differs from *L. (P.) rugitergum* sp. n. in having the first abdominal tergite longitudinally striate at most part, head with reddish spots behind eyes, antennae yellow at most part and frons almost without punctulation.

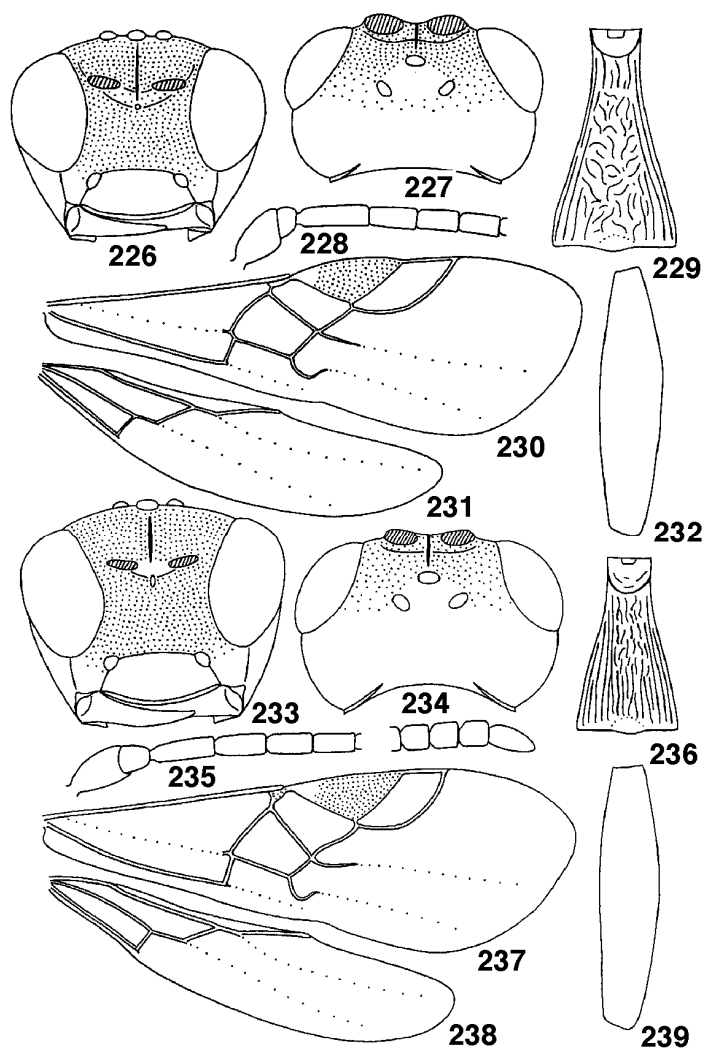
***Leiophron (Peristenus) tolerabilis* Belokobylskij, sp. n.**

Figs 226-232

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Spassk-Dal'niy, forest, glades, 3-6.VIII 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 3.4 mm; fore wing length 2.6 mm. Width of head 1.8 times its median length, 1.3 times width of mesoscutum. Temples behind eyes roundly narrowed; transverse diameter of eye 1.3 times length of temple (1.1 times on straight line). Frons weakly concave, with distinct median keel. Ocelli in triangle with base 1.4 times its lateral sides; *POL* 2.5 times *Od*, equal to *OOL*. Eye with very sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height almost equal to basal width of mandible, 0.3 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.2 times its median height, 0.8 times height of eye. Distance between tentorial pits 2.8 times distance from pit to eye. Width of clypeus 2.4 times its median height, 1.15 times width of face. Head strongly and almost linearly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna filiform, more than 20-segmented. Scape 1.8 times as long as wide. First flagellar segment 3 times as long as its apical width, 1.5 times as long as second segment. Length of subapical segments about 1.2 times their width.



Figs 226-239. *Leiothorax (Peristenus) tolerabilis* sp. n. (226-232) and *L. (P.) tristis* sp. n. (233-239). 226, 233) head, frontal view; 227, 234) head, dorsal view; 228) basal segments of antenna; 229, 236) first abdominal tergite; 230, 237) fore wing; 231, 238) hind wing; 232, 239) hind femur; 235) basal and apical segments of antenna.

Thorax. Length 1.6 times its maximum height. Notauli rather shallow, narrow, complete, crenulate. Prescutellar depression short, without distinct median carina, rugulose, 0.4 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather narrow, rugulose-punctulate. Sternauli deep, narrow, oblique, crenulate, with shallow and narrow rugulose furrow from posterior part of sternaui to hind coxa. Mesopleura with finely sculptured oblique pit from mesopleural suture to sternaui.

Wings. Length of fore wing 2.9 times its width. Length of pterostigma 2.4 times its maximum width. Radial cell 2.8 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 1.2 times as long as width of pterostigma. Radial vein arising from middle of pterostigma, its second abscissa regularly curved. First radial abscissa short. Recurrent vein weakly antefurcal, 0.9 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.4 times nervulus length. Second abscissa of longitudinal anal vein unsclerotized basally. In hind wing, basal vein 1.4 times as long as second abscissa of mediocubital vein, 1.6 times as long as third abscissa of costal vein.

Legs. Hind femur 4.3 times as long as wide. Hind tarsus 0.9 times as long as hind tibia, its second segment 0.4 times as long as first segment, almost as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs thickened. Claws simple.

Abdomen. First tergite rather narrow basally, widened posteriorly, without distinct spiracular tubercles, with very small dorsope. Apical width of first tergite 2.7 times its minimum width, length 1.8 times its apical width. Length of second and third tergites combined 2.4 times basal width of second tergite, 1.3 times their maximum width.

Sculpture and pubescence. Vertex and temple finely and sparsely punctulate, vertex ventrally densely punctulate; frons densely and coarsely punctulate, with fine semicircular striation; face very densely and rather coarsely punctulate; clypeus smooth, with very fine punctulation partly. Median lobe of mesoscutum densely and distinctly punctulate, lateral lobes smooth in posterior half, densely punctulate in anterior half. Scutellum smooth. Mesopleura sparsely and distinctly punctulate at most part. Propodeum coarsely and densely rugulose-reticulate, with short semicircular punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite densely coarsely rugose, striate laterally. Median lobe of mesoscutum entirely and lateral lobes in basal 2/3 setose. Clypeus with long and sparse hairs marginally.

Colour. Body black, head behind eyes upper with short reddish spots; clypeus dark reddish brown ventrally. Antennae entirely brownish yellow. Palpi pale yellow. Fore and middle legs brownish yellow, hind coxa dark reddish brown, hind femur reddish brown mostly, hind tibia yellow in basal half, yellowish brown in apical half, rest part of hind legs brownish yellow. Wings faintly infusate. Pterostigma dark brown, yellow in basal 1/4.

MALE unknown.

DISCUSSION. The new species is closely similar to *L. (P.) facialis* (Thomson, 1891) and differs in having the first abdominal tergite mostly rugulose, metacarpus longer, occipital carina widely interrupted dorsally, pterostigma dark brown, frons and face coarsely punctulate.

***Leiophron (Peristenus) tristis* Belokobylskij, sp. n.**

Figs 233-239

MATERIAL. Holotype: ♀, Russia: Kuril Is., Kunashir I., 3 km N Lagunnoe Lake, border of forest, glades, 9.VIII 1988 (A. Kotenko) [IZANU].

DESCRIPTION. FEMALE. Body length 2.9 mm; fore wing length 2.5 mm. Width of head 1.8 times its median length, 1.3 times width of mesoscutum. Temples behind eyes roundly narrowed; transverse diameter of eye 1.2 times length of

temple (1.1 times on straight line). Frons weakly concave, with distinct median carina. Ocelli in triangle with base 1.5 times its lateral sides; *POL* 2.3 times *Od*, 0.8 times *OOL*. Eye with very sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height 0.8 times basal width of mandible, 0.2 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.25 times its median height, 0.7 times height of eye. Distance between tentorial pits 3.5 times distance from pit to eye. Width of clypeus 2.5 times its median height, 1.2 times width of face. Head distinctly and weakly roundly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna filiform, 21-segmented, 0.7 times as long as body. Scape 1.7 times as long as wide. First flagellar segment 2.8 times as long as its apical width, 1.2 times as long as second segment. Length of penultimate segment 1.15 times its width, 0.5 times length of apical segment.

Thorax. Length 1.4 times its maximum height. Notauli deep, narrow, complete, crenulate. Prescutellar depression long, with distinct median carina, smooth, 0.4 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather narrow, punctulate-rugulose. Sternauli deep, narrow, oblique, rugulose-crenulate, with shallow and narrow crenulate furrow from posterior part of sternaui to hind coxa. Mesopleura with distinct finely sculptured oblique and very shallow furrow from mesopleural pit to sternaui.

Wings. Length of fore wing 2.7 times its width. Length of pterostigma 2.5 times its maximum width. Radial cell 2.8 times as long as wide. Metacarpus 0.3 times as long as pterostigma, 0.8 times as long as width of pterostigma. Radial vein arising from middle of pterostigma, its second abscissa regularly curved. First radial abscissa short. Recurrent vein interstitial, 0.6 times as long as first radiomedial vein. Nervulus weakly postfurcal. Second abscissa of longitudinal anal vein very shortly sclerotized basally. In hind wing, basal vein 0.9 times as long as second abscissa of mediocubital vein, 2.2 times as long as third abscissa of costal vein.

Legs. Hind femur 4.3 times as long as wide. Hind tarsus almost as long as hind tibia, its second segment 0.4 times as long as first segment, 1.1 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs weakly thickened. Claws simple.

Abdomen. First tergite rather narrow basally, widened posteriorly, with spiracular tubercles near middle, with very small dorsope. Apical width of first tergite 2.5 times its minimum width, length 1.7 times its apical width. Length of second and third tergites combined 2.5 times basal width of second tergite, 1.4 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons rather densely and finely punctulate; face very densely punctulate; clypeus smooth. Median lobe of mesoscutum rather densely and distinctly punctulate, lateral lobes smooth in posterior 3/4, punctulate in anterior 1/4. Scutellum very sparsely punctulate. Mesopleura very sparsely and finely punctulate. Propodeum coarsely rugulose-reticulate, with short semicircular punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite striate, rugulose medially in basal half. Median lobe of mesoscutum entirely and lateral lobes in basal 1/4 setose. Clypeus glabrous medially, with long hairs marginally.

Colour. Body black, clypeus reddish brown. Antennae reddish brown, 2 basal segments yellowish brown. Palpi yellow. Legs light brown, hind tibia in apical 2/3 and hind tarsus reddish brown. Wings faintly infusate. Pterostigma dark brown, light brown in basal 1/4.

MALE unknown.

DISCUSSION. The new species is closely similar to *L. (P.) suiifunensis* sp. n. and differs in having the first flagellar segment short, clypeus with long hairs marginally only, head black behind eyes, hind femur wide, hind tibia mostly and hind tarsus entirely darker. The new species differs from European *L. (P.) nitidus* Curtis, 1833 in having the occipital carina dorsally widely interrupted, frons rather distinctly punctate, mesoscutum densely punctate, first abdominal tergite wide, and mesopleura almost smooth and differs from Chinese *L. (P.) nitidoides* Chen et Achterberg, 1997 in having the first flagellar segment short, penultimate segment subquadrate, temple longer, mesopleura almost smooth, metacarpus shorter and antenna darker.

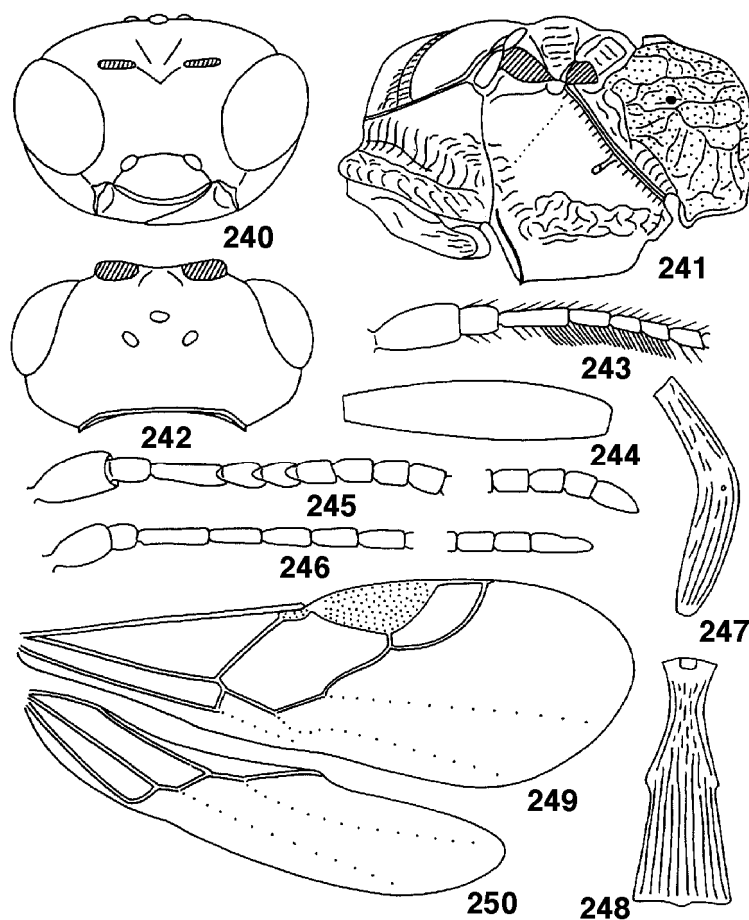
***Marshiella aichiensis* Belokobylskij, sp. n.**

Figs 240-250

MATERIAL. Holotype: ♀, Japan: Aichi, Kasugai, Takagi, weed land, EmT, 27.VII-2.VIII 1994 (K. Sandai) [NIAES]. Paratypes: 4 ♂, 3 ♀, Japan: Aichi, Kasugai, Takagi, weed land, EmT, 18-24.V, 15-21.VI, 27.VII-2.VIII, 10-16.VIII 1994 (K. Sandai); 1 ♀, Kyushu, Fukuoka, Kaizuka, 9.VI 1999 (V. Fursov) [NIAES, ZISP].

DESCRIPTION. FEMALE. Body length 2.3-2.6 mm; fore wing length 1.5-1.7 mm. Width of head 1.8-2 times its median length, 1.5-1.6 times width of mesoscutum. Occiput weakly concave. Temples behind eyes strongly roundly narrowed, transverse diameter of eye 1.2-1.4 times length of temple (1.8-2 times on straight line). Frons convex, medially widely raised in anterior half. Ocelli small, in triangle with base 1.2-1.4 times its lateral sides; posterior margin of median ocellus placed slightly before line between anterior margins of lateral ocelli. *POL* 2.2-2.5 times *Od*, 0.5-0.6 times *OOL*. Eye glabrous, 1.3-1.35 times as high as broad. Malar suture present. Malar space very narrow, its height 0.6-0.7 times basal width of mandible, 0.15-0.2 times height of eye. Antennal tubercles indistinct. Width of face 1.4-1.5 times its median height, 0.9 times height of eye. Tentorial pits distinct, distance between pits 2-2.3 times distance from pit to eye. Clypeal width almost twice its median height, 0.8 times width of face. Head very strongly and roundly narrowed below eyes. Occipital carina complete dorsally, fused ventrally with hypostomal carina.

Antenna filiform, 19-20-segmented, 0.6-0.7 times as long as body. Scape 1.8-2 times as long as wide. First flagellar segment 2.8-3 times as long as its apical width, 1.5-1.7 times as long as second segment, 0.75-0.8 times as long as scape. Second flagellar segment 1.5-1.7 times as long as wide. Fifth flagellar segment equal to or 1.1-1.2 times longer than fourth segment, slightly shorter or almost as long as sixth segment. First-fourth flagellar segments ventrally very densely pubescence. Length of penultimate segment 1.3-1.6 times its width, 0.7-0.8 times length of apical segments.



Figs 240-250. *Marshiella aichiensis* sp. n. 240) head, frontal view; 241) thorax, lateral view; 242) head, dorsal view; 243) basal segments of antenna, dorsal view; 244) hind femur; 245, 246) basal and apical segments of antenna, lateral view (245 - female; 246 - male); 247, 248) first abdominal tergite (247 - lateral view; 248 - dorsal view); 249) fore wing; 250) hind wing.

Thorax. Length 1.5-1.6 times its maximum height. Notauli rather deep, wide (especially in posterior 1/3), complete, crenulate. Prescutellar depression long, with distinct 3 carinae, finely sculptured or smooth, 0.5-0.6 times as long as scutellum. Scutellum with distinct transverse depression posteriorly. Sternauli shallow, wide, rugulose-reticulate. Propodeum without lateral tubercles, weakly abrupted in basal 1/3, very strongly and almost linearly abrupted in posterior 2/3 (lateral view), with shallow wide median longitudinal depression in posterior 2/3 (dorsal view).

Wings. Length of fore wing 2.8-2.9 times its width. Length of pterostigma 2.5-2.8 times its maximum width. Radial cell strongly shortened, 2.5-2.6 times as long as wide. Metacarpus 0.28-0.36 times as long as pterostigma, 0.7-0.9 times as long as width of pterostigma. Second abscissa of radial vein regularly curved; radial vein arising behind middle of pterostigma. First radial abscissa 0.2-0.25 times as long as maximum width of pterostigma, 0.1-0.13 times as long as second abscissa. First abscissa of medial vein absent. Joined recurrent and first radiomedial veins distinctly curved submedially. Distance from nervulus to basal vein 0.3-0.5 times nervulus length. Parallel vein entirely unsclerotized. In hind wing, basal vein 1-1.2 times as long as third abscissa of costal vein, 1.25-1.5 times as long as second abscissa of mediocubital vein.

Legs. Hind femur 4.8-5.2 times as long as wide. Hind tarsus 0.9-1 times as long as hind tibia, its second segment 0.45 times as long as first segment, 1.3 times as long as fifth segment (without pretarsus).

Abdomen. First tergite distinctly curved (lateral view), weakly widened posteriorly (dorsal view), with small spiracular tubercles near middle, without dorsope and laterope. Apical width of first tergite 2.7-3 times its minimum width, length 2.1-2.4 times its apical width. Length of second and third tergites combined 1.4-1.5 times basal width of second tergite. Ovipositor weakly curved down, S-curved apically. Ovipositor sheath narrow, 1.2-1.3 times as long as first tergite, almost 0.8 times as long as hind tibia, 0.33-0.36 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons laterally finely striate, face finely punctulate. Sides of pronotum widely rugulose-striate medially, smooth dorsally and ventroposteriorly. Mesoscutum smooth, rugulose and with short median carina in small medioposterior area. Mesopleura widely smooth. Propodeum widely irregularly areolate, with fine rugulosity and granulation in areolae, with more or less distinct transverse and curved median carina; sometimes propodeum almost smooth medially. Hind coxa smooth. First abdominal tergite almost entirely densely striate.

Colour. Body brownish yellow entirely; sometimes body light reddish brown, abdomen behind second tergite reddish brown. Antennae dark reddish brown, 6 basal segment contrasting yellow. Palpi yellow. Legs light brown. Wings almost hyaline. Pterostigma brown, pale in basal 1/4 and apically.

MALE. Body length 2.2 mm; fore wing length 1.5-1.6. Transverse diameter of eye 1.1-1.2 times as long as temple. Antennae slender, 18-19-segmented. First flagellar segment 3.3 times as long as apical width, almost as long as second segment; following segments weakly shortened. First-fourth flagellar segments without dense pubescence. Otherwise similar to female.

DISCUSSION. The new species is similar to Chinese *M. binarius* Chen et Achterberg, 1997 and differs in having the first flagellar segment significantly longer than second one, fifth and penultimate flagellar segment longer, temple longer, malar space shorter, first abdominal tergite narrow and body light reddish brown. The new species differs from Chinese *M. sinensis* Chen et Achterberg, 1997 in having the first flagellar segment significantly longer than second one, malar space shorter, metacarpus shorter, body light reddish brown, and 6 basal antennal segments contrasting yellow.

***Meteorus anastasiae* Belokobylskij, sp. n.**

Figs 251-261

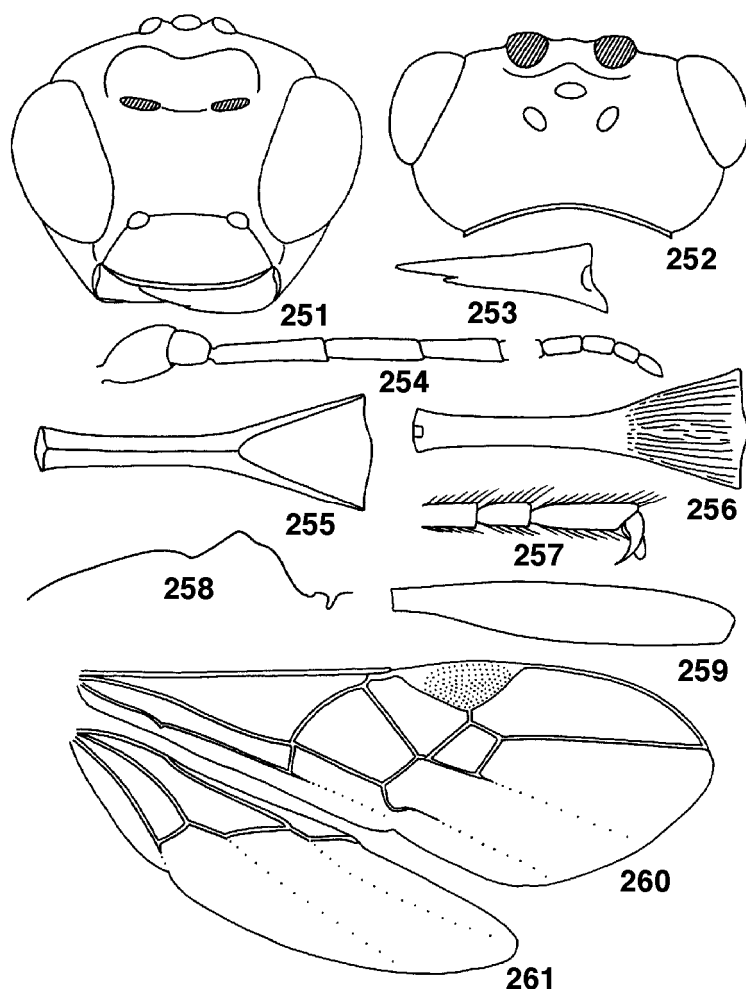
MATERIAL. Holotype: ♀, Russia: Primorskii krai, nature reserve "Kedrovaya Pad'", forest, 27-30.VIII 1995 (S.B.) [ZISP]. Paratypes. Russia: Evreyskaya AO, 2 ♀, 2 ♂, Londoko, oak forest and flood-lands, 2-3.VIII 1981 (D.K.); Primorskii krai: 4 ♂, 20 km N Spassk-Dal'niy, forest, border of forest, 18.VIII 1991 (S.B.); 1 ♀, Spassk-Dal'niy, forest, glades, 19.VIII 1991 (S.B.); 1 ♀, 30 km E Spassk-Dal'niy, forest, glades, 26.VI 1985 (S.B.); 1 ♀, Vladivostok, oak forest, 29.VIII 1985 (S.B.); 1 ♀, Anisimovka, forest, meadow, 5-7.VI 1993 (S.B.); 1 ♀, 20 km SW Krounovka, forest, glades, 2-5.VIII 1993 (S.B.); 1 ♀, 1 ♂, 25 km SW Slavyanka, Sukhanovka, forest, shrubs, 18-20.VIII 1998 (S.B.) [ZISP]. Korea: 1 ♀, Kangon, Seolak, Hangyeryoung, 27.V 1993 (D.-S. Ku); 1 ♀, Kyonggi, Kwangju, Docheok, Sangrim, Mt. Taehwa, light trap, 5.VIII 1998 (D.-S. Ku); 1 ♀, Mt. Chiak, Wonju, Kangwon-do, light trap, 14.VIII 1999 (D.-S. Ku) [NIAS].

DESCRIPTION. FEMALE. Body length 4.4-5.0 mm; fore wing length 3.8-4.1 mm. Head transverse, its width almost twice its median length. Temple distinctly and roundly narrowed behind eye, its length 0.7-0.75 times transverse diameter of eye. Frons weakly convex and without median tubercle, distinctly concave opposite of antennal sockets. Ocelli rather small, in triangle with base 1.4-1.5 times its sides; *POL* 1.4-1.7 times *Od*, 0.5 times *OOL*, *Od* 0.3-0.35 times *OOL*. Eyes oval, shortly and rather sparsely setose, weakly convergent below, 1.3-1.4 times as high as broad. Malar space short, its height 0.1-0.15 times height of eye, about 0.4 times basal width of mandible. Minimum width of face 1.5 times its median height. Maximum width of face 1.3-1.35 times its minimum width. Malar suture present. Tentorial pits distinct and rather small, distance between pits 3-3.3 times distance from pit to eye. Clypeal suture distinct. Clypeus convex, its lower margin straight and without tubercle; width of clypeus about 2.5 times its median height, 1.1 times minimum width of face. Mandible almost not twisted, upper tooth very long, 3-4 times as long as lower tooth. Occipital carina distinct and complete, joined to hypostomal carina ventrally.

Antenna almost filiform, slender, slightly shorter than body, 28-29-segmented. First flagellar segment 4-4.7 times as long as its apical width, 1.2-1.3 times as long as second segment. Length of penultimate segment 1.8-2.3 times its width.

Thorax. Length 1.6-1.7 times its height. Pronotum with large pronope, smooth around pronope, pronotal keel distinctly angulate medially. Notauli distinct, narrow, rugulose-crenulate. Prescutellar depression deep, almost straight in posterior side, with high median carina, finely rugulose or sparsely crenulate, 0.4 times as long as scutellum. Scutellum strongly and pointedly convex, without lateral carinae and with rugulose depression posteriorly. Sternauli rather deep, wide, medially curved, densely and widely rugulose in anterior 2/3-3/4. Propodeum (lateral view) weakly and roundly abrupted in anterior half, strongly and almost straightly abrupted in posterior half.

Wings. Fore wing 2.8 times as long as wide. Radial cell not shortened. Metacarpus 1.3-1.4 times as long as pterostigma. Radial vein arising slightly behind middle of pterostigma. Second radial abscissa 2.7-3 times first abscissa, 0.15-0.2 times straight third abscissa, 0.5-0.6 times first radiomedial vein. Second radiomedial



Figs 251-261. *Meteorus anastasiae* sp. n. 251) head, frontal view; 252) head, dorsal view; 253) mandible; 254) basal and apical segments of antenna; 255, 256) first abdominal tergite (255 - ventral view; 256 - dorsal view); 257) apical segments of hind tarsus and claw; 258) shape of scutellum, lateral view; 259) hind femur; 260) fore wing; 261) hind wing.

cell small, its length almost equal to maximum width. Recurrent vein antefurcal. Nervulus interstitial or weakly postfurcal. In hind wing, second abscissa of medio-cubital vein 1.3-1.5 times as long as nervellus, 0.8 times as long as basal vein.

Legs. Hind femur 5.3-5.6 times as long as wide. Inner spur of hind tibia about 0.3 times basitarsus. Second segment of hind tarsus 0.4 times first segment, 1.5-1.6 times fifth segment (without pretarsus). Claws rather short and simple.

Abdomen almost equal to head and thorax combined. First tergite without dorsope, without spiracular tubercles, spiracles located near apical 1/3 of tergite, its ventral borders joined almost from base of segment to posterior 0.6. Length of

first tergite 2.4-2.7 times its apical width. Length of second and third tergites combined 1.6-1.8 times basal width of second tergite. Second suture absent. Ovipositor sheath 1.4-1.5 times as long as first tergite, about 0.4 times fore wing.

Sculpture and pubescence. Head smooth, frons striate medially, face densely punctulate with fine rugae. Sides of pronotum coarsely rugose. Mesothorax finely and densely punctulate. Propodeum with distinct transverse carinae in basal 1/4 and apical 1/3, with complete longitudinal carina, these carinae forming 2 anterior and 2 posterior areas in basal 3/5; sparsely rugose, 4 areas almost smooth, finely rugulose along carinae or almost entirely rugulose in posterior areas. Hind coxae densely punctulate, densely rugulose dorsally. First abdominal tergite almost smooth in basal 1/2-2/3, entirely striate on rest part. Rest tergites smooth. Clypeus with sparse long hairs; face densely and shortly setose.

Colour. Body light reddish brown or reddish brown, dorsally and ventrally darker, sometimes prothorax yellow at most part. Palpi pale yellow. Antenna light reddish brown, darkened apically. Legs light brown or light reddish brown, hind legs darker, hind femur in apical 1/2-2/3 and hind tibia apically darker. Wings almost hyaline. Pterostigma dark brown, pale yellow basally, anteriorly and apically.

MALE. Body length 4.2-4.7 mm; fore wing length 3.4-4.0 mm. Antennae longer than body. Penultimate segment 2.5-2.8 times as long as wide. Propodeum rugulose at most part (including areas). Thorax mostly dark reddish brown. Otherwise similar to female.

DISCUSSION. The new species is similar to *M. eadyi* Huddleston, 1980 (Huddleston, 1980) and differs in having the first abdominal tergite longer and almost smooth (at least in basal half), propodeum with 4 distinctly marginate areas and another shape (lateral view), pronope deep and upper tooth of mandible very long. *M. anastasiae* sp. n. is similar to *M. filator* Haliday, 1835 (Huddleston, 1980) and differs in having the upper tooth of mandible very long, pronope deep and large, lower part of eyes less convergent ventrally, antennal segments and first abdominal tergite longer.

DISTRIBUTION. Russia (Evreyskaya AO, Primorskii krai), Korea.

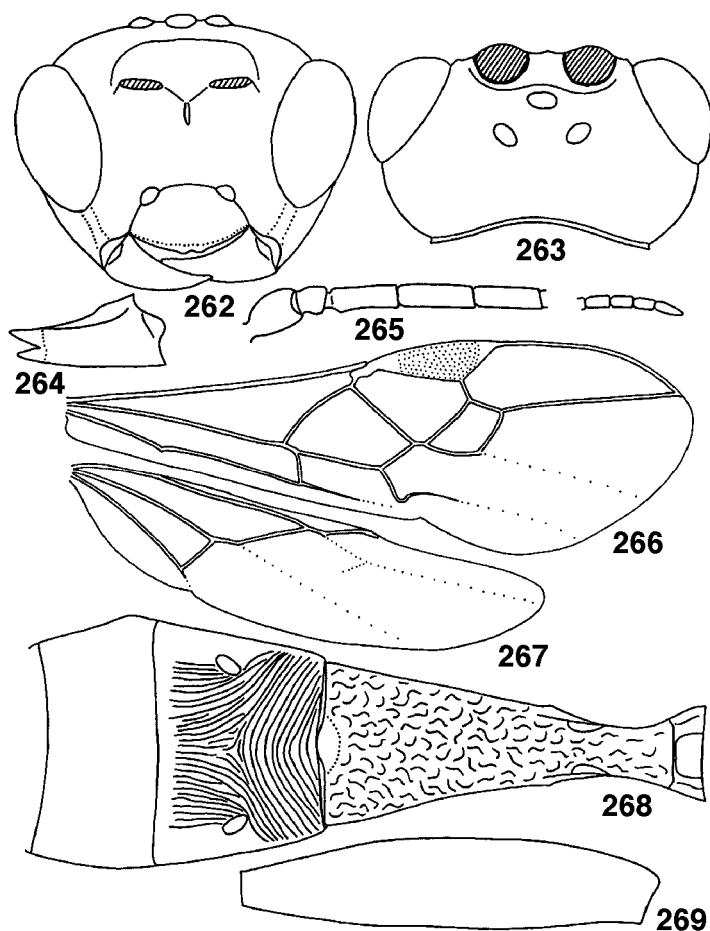
ETYMOLOGY. This species is named after my daughter Anastasia.

***Meteorus rex* Belokobylskij, sp. n.**

Figs 262-269

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Khasan, oak forest, meadow with shrubs, 30.VIII 1988 (S.B.) [ZISP]. Paratypes: Primorskii krai: 2 ♀, 20 km SE Ussuriysk, Gornotayozhnoe, at light, 18.VI 1981 (D.K.); 1 ♀, 15 km SW Spassk-Dal'niy, Knorring, forest, glades, 22.VII 1991 (S.B.); 1 ♀, 1 ♂, Khasan, meadow, shrubs, oak forest, 12-14.VIII 1998 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 7.1-8.0 mm; fore wing length 5.3-6.2 mm. Head transverse, its width 1.7-1.9 times median length. Temple roundly narrowed behind eye, its length 0.7-0.8 times transverse diameter of eye. Frons concave and without median tubercle. Ocelli medium size, in triangle with base 1.4 times its sides; *POL* 1.4-1.8 times *Od*, 0.5-0.55 times *OOL*, *Od* 0.3-0.4 times *OOL*. Eyes oval, shortly and very sparsely setose, not convergent below, 1.3 times as high as broad. Malar space short, its height 0.3 times height of eye, 0.7-0.8 times



Figs 262-269. *Meteorus rex* sp. n. 262) head, frontal view; 263) head, dorsal view; 264) mandible; 265) basal and apical segments of antenna; 266) fore wing; 267) hind wing; 268) first-third abdominal tergites; 269) hind femur.

basal width of mandible. Minimum width of face 1.6-1.7 times its median height. Maximum width of face 1.1 times its minimum width. Malar suture present, but shallow. Tentorial pits distinct and small, distance between pits about 1.5 times distance from pit to eye. Clypeal suture distinct. Clypeus convex, its lower margin weakly convex and with small double median tubercle; width of clypeus almost twice its median height, about 0.7 times minimum width of face. Mandible weakly twisted. Occipital carina distinct and complete, joined to hypostomal carina ventrally.

Antenna setiform, slender, longer than body, 45-48-segmented. First flagellar segment 2.5-2.8 times as long as its apical width, 0.85-0.9 times as long as second segment. Length of second segment 3.2-3.4 times as long as wide. Length of penultimate segment 2-2.3 times its width.

Thorax. Length 1.7-1.8 times its height. Pronotum without pronope, with small smooth subpronope, pronotal carina indistinct. Notauli deep, wide, coarsely crenulate. Prescutellar depression deep, almost straight in posterior side, with high median carina, strongly crenulate, 0.3-0.35 times as long as scutellum. Scutellum convex, without lateral carinae and with smooth long depression posteriorly (which is with median carina). Sternauli deep, wide, S-curved, coarsely rugose-reticulate. Propodeum (lateral view) weakly and roundly abrupted in anterior half, strongly and almost linearly abrupted in posterior half.

Wings. Fore wing 3 times as long as wide. Radial cell weakly shortened. Metacarpus 1.4-1.5 times as long as pterostigma. Radial vein arising distinctly behind middle of pterostigma, almost from apical 1/3. Second radial abscissa 1-1.6 times first abscissa, 0.1-0.2 times straight third abscissa, 0.4-0.5 times first radiomedial vein. Second radiomedial cell small, its length 0.9-1.1 times maximum width. Recurrent vein antefurcal. Distance from nervulus to basal vein 0.3 times nervulus length. In hind wing, second abscissa of mediocubital vein 0.5-0.55 times as long as nervellus, 0.4-0.5 times as long as basal vein.

Legs. Hind femur 4.6-4.9 times as long as wide. Inner spur of hind tibia about 0.3 times basitarsus. Second segment of hind tarsus 0.4 times first segment, 1.6-1.7 times fifth segment (without pretarsus). Claws simple.

Abdomen almost equal to or slightly shorter than head and thorax combined. First tergite with rather large dorsope, rather narrow basally, with spiracular tubercles in basal 0.4 of tergite, its ventral borders more or less widely separated, with distinct hole. Length of first tergite 2.1-2.3 times its apical width. Length of second and third tergites combined 1.6-1.7 times basal width of second tergite. Second suture distinct. Ovipositor sheath 2-2.2 times as long as first tergite, 1.1-1.3 times as long as costal vein, 0.44-0.6 times fore wing.

Sculpture and pubescence. Head finely punctulate, frons striate-rugulose, face rugulose-punctulate. Sides of pronotum coarsely rugose. Mesoscutum and mesopleura finely punctulate. Propodeum with distinct longitudinal carina, entirely coarsely reticulate-rugose. Hind coxae punctulate, rugulose-striate dorsoapically. First abdominal tergite densely reticulate-rugulose. Second tergite more or less distinctly striate, smooth posteriorly, often striae in basal half semicircular partly. Rest tergites smooth.

Colour. Body black. Antenna reddish brown, darkened toward apex. Palpi yellow. Legs light reddish brown, hind tibia dark reddish brown in apical 3/4, light brown basally; hind tarsus whitish yellow. Wings infusate. Pterostigma dark brown, light brown in basal 1/3 and apically.

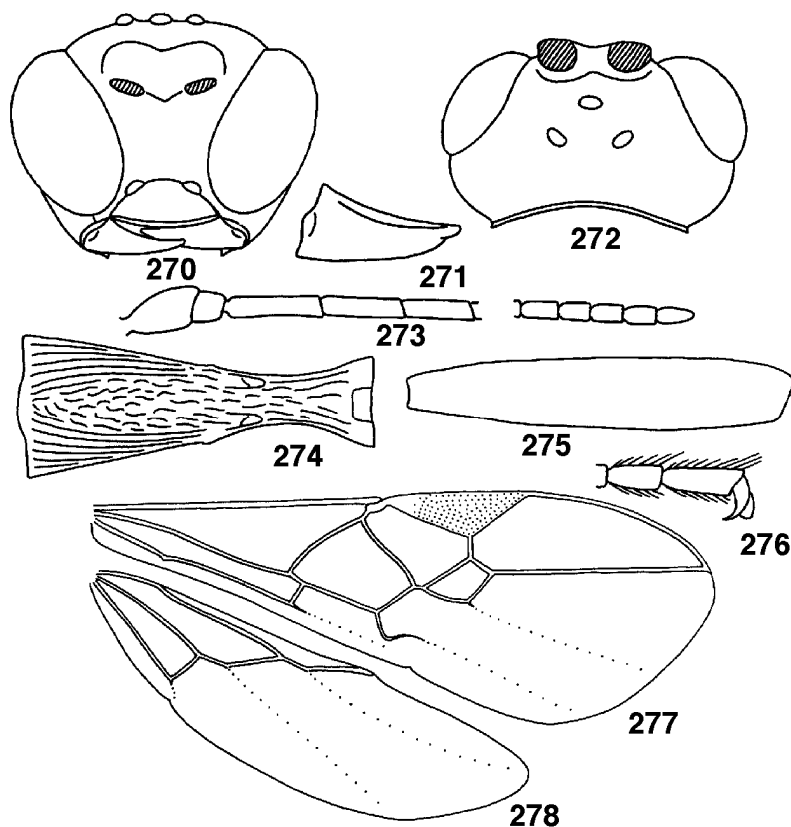
MALE. Body length 6.1 mm; fore wing length 4.6 mm. Antennae 42-segmented. Otherwise similar to female.

DISCUSSION. The new species is closely similar to *M. rugosus* Maeto, 1986 (Maeto, 1986) and differs by the sculpture of the second abdominal tergite, in having the ovipositor short and hind femur narrow.

***Meteorus sutshanicus* Belokobylskij, sp. n.**

Figs 270-278

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 15 km WNW Partizansk, Fridman, forest, 28.VI 1996 (S.B.) [ZISP].



Figs 270-278. *Meteorus sutshanicus* sp. n. 270) head, frontal view; 271) mandible; 272) head, dorsal view; 273) basal and apical segments of antenna; 274) first abdominal tergite; 275) hind femur; 276) apical segments of hind tarsus and claw; 277) fore wing; 278) hind wing.

DESCRIPTION. FEMALE. Body length 3.9 mm; fore wing length 3.2 mm. Head transverse, its width 1.9 times median length. Temple distinctly roundly narrowed behind eye, its length 0.6 times transverse diameter of eye. Frons weakly concave and without median tubercle. Ocelli rather small, in triangle with base 1.4 times its sides; *POL* twice *Od*, 0.8 times *OOL*, *Od* 0.4 times *OOL*. Eyes oval, shortly and rather sparsely setose, distinctly convergent below, 1.4 times as high as broad. Malar space very short, its height 0.1 times height of eye, 0.3 times basal width of mandible. Minimum width of face equal to its height. Maximum width of face 1.6 times its minimum width. Malar suture indistinct. Tentorial pits distinct and small, distance between pits 5.3 times distance from pit to eye. Clypeal suture distinct. Clypeus convex, its lower margin weakly convex and without tubercle; width of clypeus 2.3 times its median height, 1.1 times minimum width of face. Mandible weakly twisted. Upper tooth of mandible short. Occipital carina distinct and complete, fused with hypostomal carina ventrally.

Antenna setiform, slender, 0.8 times as long as body, 27-segmented. First flagellar segment 4 times as long as its apical width, 1.1 times as long as second segment. Length of penultimate segment twice its width.

Thorax. Length 1.8 times its height. Pronotum with small pronope and subpronope, without pronotal carina. Notauli distinct, narrow, crenulate. Prescutellar depression deep, almost straight in posterior side, with median carina, smooth, 0.4 times as long as scutellum. Scutellum convex, without lateral carinae, with distinct smooth depression posteriorly (which is with median carina). Sternauli rather shallow, wide, S-curved, entirely rugulose. Propodeum (lateral view) regularly roundly abrupted toward apex.

Wings. Fore wing 2.7 times as long as wide. Radial cell weakly shortened. Metacarpus 1.25 times as long as pterostigma. Radial vein arising almost from middle of pterostigma. Second radial abscissa 1.3 times first abscissa, 0.15 times straight third abscissa, 0.5 times first radiomedial vein. Second radiomedial cell small, its length 1.1 times maximum width. Recurrent vein antefurcal. Distance from nervulus to basal vein equal to nervulus length. In hind wing, second abscissa of mediocubital vein 0.8 times as long as nervellus, 0.45 times as long as basal vein.

Legs. Hind femur 5.2 times as long as wide. Inner spur of hind tibia about 0.3 times basitarsus. Second segment of hind tarsus 0.4 times first segment, 1.5 times fifth segment (without pretarsus). Claws with small basal lobe.

Abdomen slightly shorter than head and thorax combined. First tergite with rather large dorsope, without spiracular tubercles, spiracles placed near middle of tergite, its ventral borders separated, with distinct hole. Length of first tergite 2.25 times its apical width. Length of second and third tergites combined 1.5 times basal width of second tergite. Second suture indistinct. Ovipositor sheath 2.2 times as long as first tergite, 1.15 times as long as costal vein, 0.5 times as long as fore wing.

Sculpture and pubescence. Head smooth, face finely punctulate. Sides of pronotum sculptured medially and upper, smooth at most part. Mesoscutum punctulate. Propodeum with fine longitudinal carina in basal half and transverse carina in posterior 2/5, rugulose-reticulate, smooth partly medio-subanteriorly. Hind coxae rugose-striate, densely punctulate laterally. First abdominal tergite striate, narrow rugulose medially. Rest tergites smooth.

Colour. Body black. Antenna reddish brown in basal 1/4, darkened toward apex. Palpi yellow. Legs light brown, hind coxa mostly light reddish brown, hind tibia and tarsus dark reddish brown, hind tibia yellowish basally. Wings subhyaline. Pterostigma brown, yellow in basal 1/4.

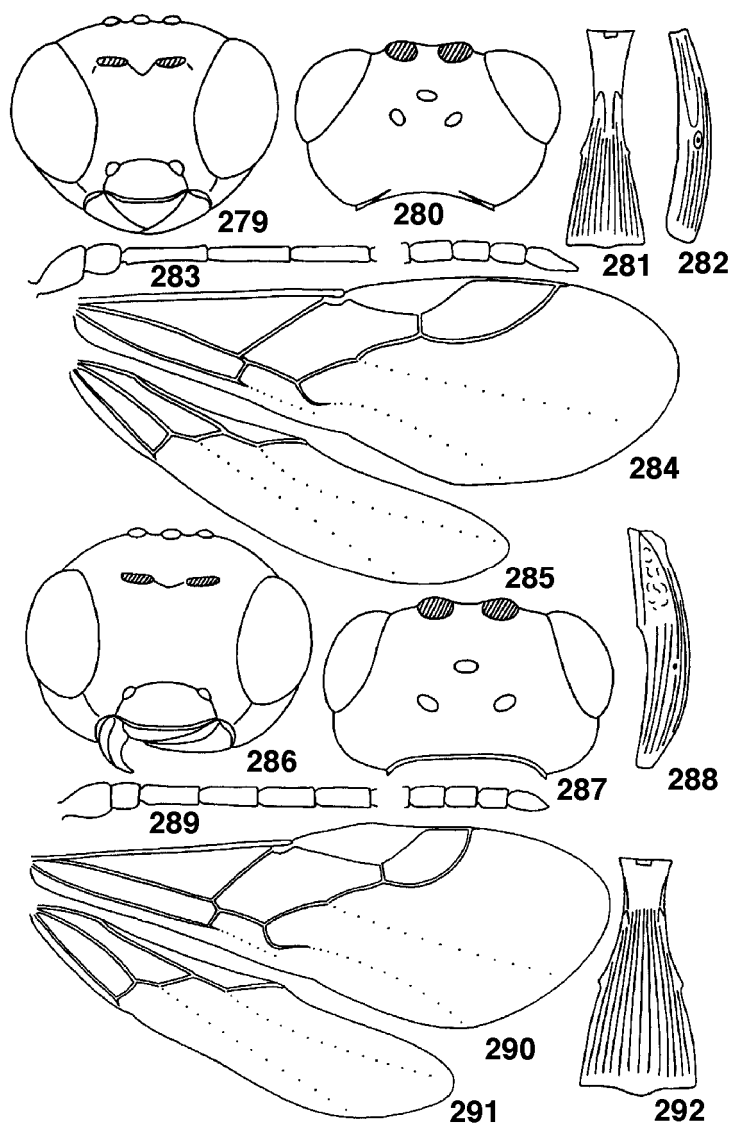
MALE unknown.

DISCUSSION. The new species is closely similar to *M. vexator* Haliday, 1835 (Huddleston, 1980) and differs in having the face less narrowed (its minimum width equal to height), thorax elongate and sternauly widely sculptured.

***Perilitus (Microctonus) articulatus* Belokobylskij, sp. n.**

Figs 279-285

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 50 km S Terney, oak forest, 9.VIII 1979 (S.B.) [ZISP]. Paratypes: 1 ♀, Primorskii krai, Spassk-Dal'niy, border of forest, 9-11.VII 1995 (S.B.); 1 ♀, Sakhalin, 5 km W Ozersk, coniferous forest, 12.VIII 1981 (S.B.) [ZISP].



Figs 279-292. *Perilitus* (*Microctonus*) *articulatus* sp. n. (279-285) and *P. (M.) cretaceus* sp. n. (286-292). 279, 286) head, frontal view; 280, 287) head, dorsal view; 281, 282, 288, 292) first abdominal tergite (281, 292 - dorsal view; 282, 288 - lateral view); 283, 289) basal and apical segments of antenna; 284, 290) fore wing; 285, 291) hind wing.

DESCRIPTION. FEMALE. Body length 1.9-2.2 mm; fore wing length 2.0-2.2 mm. Width of head 1.8 times its median length, 1.4-1.5 times width of mesoscutum. Occiput concave. Temples behind eyes roundly narrowed, transverse diameter of eye 1.4-1.5 times length of temple. Ocelli small, in triangle with base 1.4 times its

lateral sides; posterior margin of median ocellus placed distinctly before line between anterior margins of lateral ocelli. *POL* 2-2.3 times *Od*, 0.7-0.9 times *OOL*. Eye glabrous, 1.4 times as high as broad. Malar suture present. Malar space narrow, its height 0.5 times basal width of mandible, 0.15 times height of eye. Antennal tubercles indistinct. Width of face equal to its median height, 0.6-0.7 times height of eye. Tentorial pits distinct, distance between pits 3-4 times distance from pit to eye. Clypeus with narrow ventral flange. Width of clypeus about twice its median height, almost equal to width of face. Head strongly and roundly narrowed below eyes. Occipital carina widely interrupted dorsally.

Antenna slender, weakly widened toward apex, 21-segmented, 1.2 times as long as body. First flagellar segment 4-4.8 times as long as its apical width, almost as long as second segment. Length of penultimate segment 1.7 times its width, 0.5 times length of first and 0.6 times length of apical segments.

Thorax. Length 1.4 times its maximum height. Notauli rather deep, wide, complete, crenulate. Prescutellar depression long, with distinct median carina, smooth, 0.4 times as long as scutellum. Scutellum with distinct transverse and almost smooth depression posteriorly. Sternauli shallow, rather narrow, rugulose-reticulate. Propodeum without lateral tubercles, strongly and almost linearly abruptly toward apex (lateral view), with distinct wide median depression in posterior 2/3 (dorsal view).

Wings. Length of fore wing 2.6-2.8 times its width. Length of pterostigma 3.7-3.8 times its maximum width. Radial cell distinctly shortened, pointed apically, 2.4-2.7 times as long as wide. Metacarpus 0.7-0.75 times as long as pterostigma, 2.4-2.7 times as long as width of pterostigma, 0.8-0.9 times distance from apex of radial cell to apex of wing. Second abscissa of radial vein rather regularly curved; radial vein arising behind middle of pterostigma. First radial abscissa 0.6 times as long as maximum width of pterostigma, 0.15 times as long as second abscissa. First abscissa of medial vein absent. Distance from nervulus to basal vein 0.5 times nervulus length. In hind wing, basal vein 0.6-0.7 times as long as third abscissa of costal vein.

Legs. Hind femur 6.2-6.7 times as long as wide. Hind tarsus as long as hind tibia, its second segment 0.4 times as long as first segment, 1.3 times as long as fifth segment (without pretarsus).

Abdomen. First tergite weakly widened posteriorly, with very small spiracular tubercles near middle, with small laterope and dorsope. Apical width of first tergite 2.3 times its minimum width, length 2.8-3 times its apical width. Length of second and third tergites combined twice basal width of second tergite. Ovipositor compressed, weakly curved down. Ovipositor sheath narrow, 1.4-1.5 times as long as first tergite, 0.8 times as long as hind tibia, 0.3 times as long as fore wing.

Sculpture and pubescence. Head smooth, face transversely striate. Sides of pronotum rugulose medially, finely sculptured or smooth lower and upper. Mesoscutum smooth, with short carina medioposteriorly. Mesopleura smooth on wide median area. Propodeum rather finely rugulose-reticulate, with several distinct sparse carinae. Hind coxa smooth. First abdominal tergite striate in apical 2/3. Median lobe of mesoscutum shortly setose, lateral lobes glabrous at most part.

Colour. Body light reddish brown or brownish yellow, sometimes head yellow, thorax dorsally and abdomen behind first tergite darker. Antennae light reddish

brown in basal 3/5, dark reddish brown in apical 2/5. Palpi yellow. Legs yellow. Wings hyaline. Pterostigma light brown.

MALE unknown.

DISCUSSION. The new species is closely similar to *P. (M.) areolatus* Thomson, 1892 and differs in having the face narrow, basal flagellar segments slender, antenna weakly claviform, lateral lobes of mesoscutum glabrous and by presents of small laterope.

***Perilitus (Microctonus) cretaceus* Belokobylskij, sp. n.**

Figs 286-292

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Spassk-Dal'niy, forest, glades, shrubs, 10-12.VII 1993 (S.B.) [ZISP]. Paratype: 1 ♀, Primorskii krai, 20 km SE Spassk-Dal'niy, cretaceous slope, 28.VI 1985 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.1-2.9 mm; fore wing length 1.9-2.3 mm. Width of head almost twice its median length, 1.4 times width of mesoscutum. Occiput weakly concave. Temples behind eyes distinctly roundly narrowed, transverse diameter of eye 1.2-1.3 times length of temple. Ocelli medium size, in triangle with base 1.5 times its lateral sides; posterior margin of median ocellus placed before line between anterior margins of lateral ocelli. *POL* 2.2-2.3 times *Od*, 0.75-0.8 times *OOL*. Eye with very sparse and short hairs, 1.3-1.4 times as high as broad. Malar suture present. Malar space narrow, its height 0.5-0.75 times basal width of mandible, 0.15-0.25 times height of eye. Antennal tubercles indistinct. Width of face 1.2-1.3 times its median height, 0.8-1 times height of eye. Tentorial pits distinct, distance between pits 2.2-2.3 times distance from pit to eye. Clypeus with narrow ventral flange. Width of clypeus almost twice its median height, 0.7-0.8 times width of face. Head strongly and roundly narrowed below eyes. Occipital carina more or less distinctly interrupted dorsally.

Antenna filiform, 21-22-segmented, 0.8 times as long as body. First flagellar segment 2.8 times as long as its apical width, 0.9 times as long as second segment. Length of penultimate segment 1.4-1.8 times its width, 0.5-0.6 times length of first and 0.6-0.7 times length of apical segments.

Thorax. Length 1.4 times its maximum height. Notauli rather shallow, wide, complete, crenulate. Prescutellar depression long, with distinct median carina, almost smooth, 0.4 times as long as scutellum. Scutellum with distinct transverse smooth depression posteriorly. Sternauli shallow, wide, rugulose-reticulate. Propodeum without lateral tubercles, strongly and almost linearly abrupt toward apex (lateral view), with shallow and wide depression in posterior half (dorsal view).

Wings. Length of fore wing 2.6-2.8 times its width. Length of pterostigma 3-3.3 times its maximum width. Radial cell strongly shortened, obtuse apically, 2.2-2.3 times as long as wide. Metacarpus 0.33 times as long as pterostigma, as long as width of pterostigma, 0.3 times distance from apex of radial cell to apex of wing. Second abscissa of radial vein regularly curved; radial vein arising almost from middle of pterostigma. First radial abscissa 0.3 times as long as maximum width of pterostigma, 0.15 times as long as second abscissa. First abscissa of medial vein absent. Distance from nervulus to basal vein 0.75-0.9 times nervulus length. In hind wing, basal vein 0.7-1 times as long as third abscissa of costal vein.

Legs. Hind femur 6-6.3 times as long as wide. Hind tarsus 0.9 times as long as hind tibia, its second segment 0.4 times as long as first segment, 1.5 times as long as fifth segment (without pretarsus).

Abdomen. First tergite distinctly widened posteriorly, with small spiracular tubercles behind middle, without laterope, with small dorsope. Apical width of first tergite 2.5 times its minimum width, length 1.8-2 times its apical width. Length of second and third tergites combined 1.7 times basal width of second tergite. Ovipositor strongly compressed, weakly curved down. Ovipositor sheath narrow, 1.2-1.3 times as long as first tergite, 0.7-0.75 times as long as hind tibia, 0.3 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons finely sculptured, face finely punctulate. Sides of pronotum rugulose-reticulate, smooth upper at narrow part. Median lobe of mesoscutum densely and finely punctulate, rugulose on small area medioposteriorly. Mesopleura smooth on rather wide median area. Propodeum entirely densely and rather finely rugulose-reticulate, with several distinct irregular carinae. Hind coxa smooth. First abdominal tergite almost entirely densely striate. Median lobe of mesoscutum entirely densely setose, lateral lobes glabrous at most part.

Colour. Body brownish yellow or light reddish brown, propodeum darker. Antennae dark reddish brown, 5 basal segments light reddish brown. Palpi yellow. Legs light reddish brown or brownish yellow. Wings hyaline. Pterostigma light brown.

MALE unknown.

DISCUSSION. The new species is closely similar to *P. (M.) cerealium* Haliday, 1835 and differs in having the radial cell very short and metacarpus as long as width of pterostigma.

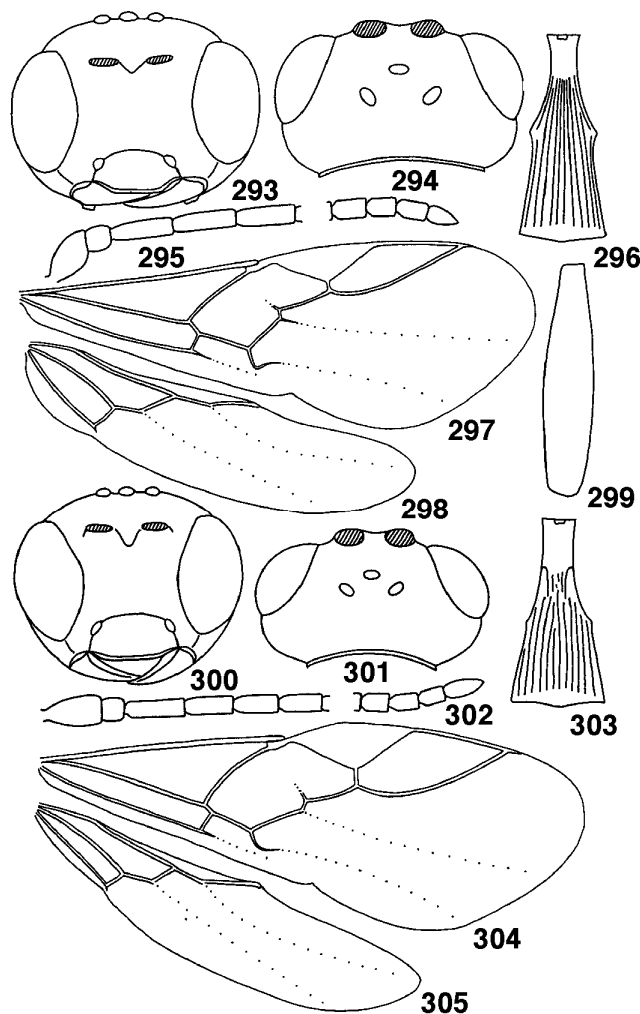
***Perilitus (Microctonus) hylobivorus* Belokobylskij, sp. n.**

Figs 293-298

MATERIAL. Holotype: ♀, Russia: Irkutskaya oblast', Baisha, ex *Hylobius sibiricus* Egorov, 25.VI 1960 (I. Bialaia) [ZISP]. Paratypes: 5 ♀, 2 ♂ with the same label as holotype [ZISP].

DESCRIPTION. FEMALE. Body length 2.6-2.8 mm; fore wing length 2.3 mm. Width of head 1.8-2 times its median length, 1.3-1.4 times width of mesoscutum. Occiput weakly concave. Temples behind eyes convexly roundly narrowed, transverse diameter of eye 1.5 times length of temple. Ocelli medium size, in triangle with base 1.6 times its lateral sides; posterior margin of median ocellus placed almost on one line between anterior margins of lateral ocelli. *POL* 2.4-2.5 times *Od*, 0.9-1.1 times *OOL*. Eye with sparse and very short hairs, 1.3-1.4 times as high as broad. Malar suture present. Malar space narrow, its height 0.5-0.6 times basal width of mandible, 0.15-0.2 times height of eye. Antennal tubercles indistinct. Width of face 1.3 times its median height, 0.9 times height of eye. Tentorial pits distinct, distance between pits 2.8 times distance from pit to eye. Clypeus with narrow ventral flange. Width of clypeus almost twice its median height, 0.8 times width of face. Head strongly and almost linearly narrowed below eyes. Occipital carina complete dorsally.

Antenna filiform, 20-21-segmented, 0.8 times as long as body. First flagellar segment 2.8-3 times as long as its apical width, 0.9-1 times as long as second segment. Length of penultimate segment 1.3-1.6 times its width, 0.45-0.5 times length of first and 0.6-1 times length of apical segments.



Figs 293-305. *Perilitus (Microctonus) hylobivorus* sp. n. (293-298) and *P. (M.) maritimus* sp. n. (299-305). 293, 300) head, frontal view; 294, 301) head, dorsal view; 295, 302) basal and apical segments of antenna; 296, 303) first abdominal tergite, dorsal view; 297, 304) fore wing; 298, 305) hind wing; 299) hind femur.

Thorax. Length 1.4-1.45 times its maximum height. Median lobe of mesoscutum with wide and shallow median longitudinal depression. Notauli rather deep, narrow, complete, crenulate. Prescutellar depression rather long, with median carina, sparsely crenulate and rugulose between crenulae, 0.35-0.4 times as long as scutellum. Scutellum with distinct long transverse and finely sculptured depression posteriorly. Sternauli shallow, wide, rugulose-reticulate. Propodeum without lateral tubercles, strongly and almost linearly abrupted in posterior 3/4 (lateral view), with shallow wide median depression in posterior half (dorsal view).

Wings. Length of fore wing 2.5-2.6 times its width. Length of pterostigma 2.8-3 times its maximum width. Radial cell shortened, pointed apically, 2.8-3 times as long as wide. Metacarpus 0.7-0.75 times as long as pterostigma, almost as long as distance from apex of radial cell to apex of wing. Second abscissa of radial vein curved in basal half and almost straight in apical half; radial vein arising from middle of pterostigma. First radial abscissa 0.3-0.4 times as long as maximum width of pterostigma, 0.1 times as long as second abscissa. First abscissa of medial vein absent, sometimes shortly present distally. Distance from nervulus to basal vein 0.6-0.8 times nervulus length. In hind wing, basal vein 0.7-0.9 times as long as third abscissa of costal vein.

Legs. Hind femur 5-5.5 times as long as wide. Hind tarsus as long as hind tibia, its second segment 0.5 times as long as first segment, 1.5 times as long as fifth segment (without pretarsus).

Abdomen. First tergite weakly widened posteriorly, with distinct spiracular tubercles near middle, without laterope, with very small dorsope or without it. Apical width of first tergite 3-3.3 times its minimum width, length 2-2.4 times its apical width. Length of second and third tergites combined about 1.5 times basal width of second tergite. Ovipositor weakly compressed, weakly curved down or straight. Ovipositor sheath narrow, about 1.7 times as long as first tergite, almost as long as hind tibia, 0.4 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons in anterior 1/3-1/4 striate, face punctulate. Sides of pronotum rugulose, smooth upper. Median lobe of mesoscutum densely and distinctly punctulate, rugulose in rather small area medioposteriorly. Mesopleura smooth on narrow median area. Propodeum entirely reticulate-rugulose, with several sparse carinae. Hind coxa punctulate-rugulose laterally and dorsally in basal 1/3, smooth in apical 2/3. First abdominal tergite distinctly striate, shortly smooth apically. Median lobe of mesoscutum entirely and lateral lobes almost entirely pubescence.

Colour. Body black or dark reddish brown, head reddish brown, face and malar space yellowish brown. Antennae dark reddish brown, 2 basal segments light reddish brown. Palpi light brown. Legs light brown, coxae reddish brown or dark reddish brown. Wings almost hyaline. Pterostigma brown.

MALE. Body length 2.6 mm; fore wing length 2.2 mm. Transverse diameter of eye 1.2 times length of temple. Antennae thickened, 22-segmented. First flagellar segment 2.6 times as long as apical width. Face reddish brown. Depression on median lobe of mesoscutum less distinct. Legs reddish brown. Otherwise similar to female.

DISCUSSION. The new species is similar to *P. (M.) caudatus* Thomson, 1892 and differs in having the radial cell longer, first flagellar segment short, median lobe of mesoscutum distinctly punctulate with median depression, hind coxa partly sculptured, body and coxae dark and another shape of propodeum. *P. hylobivorus* sp. n. is similar to *P. (M.) taegeri* sp. n. and differs in having the face wide, first flagellar segment not longer than second one, ovipositor long, coxae dark, hind coxa sculptured partly and mesopleura widely smooth. The new species differs from *P. (M.) areolaris* Thomson, 1892 in having the median lobe of mesoscutum distinctly punctulate with median depression, lateral lobes of mesoscutum mostly setose, hind coxa partly sculptured, scutellum with long posterior depression, body and coxae dark.

***Perilitus (Microctonus) maritimus* Belokobylskij, sp. n.**

Figs 299-305

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Khasan, Golubinyi Utyos oak forest, shrubs, 28.VIII 1988 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.2 mm; fore wing length 2.0 mm. Width of head 1.8 times its median length, 1.3 times width of mesoscutum. Occiput weakly concave. Temples behind eyes roundly narrowed, transverse diameter of eye 1.4 times length of temple. Ocelli medium size, in triangle with base 1.4 times its lateral sides; posterior margin of median ocellus placed almost on line between anterior margins of lateral ocelli. *POL* 2.3 times *Od*, 0.9-1 times *OOL*. Eye almost glabrous, 1.4 times as high as broad. Malar suture present. Malar space narrow, its height 0.7 times basal width of mandible, 0.2 times height of eye. Antennal tubercles indistinct. Width of face equal to its median height, 0.8 times height of eye. Tentorial pits distinct, distance between pits 3.5 times distance from pit to eye. Clypeus with narrow ventral flange. Width of clypeus 1.8 times its median height, 0.8 times width of face. Head strongly and roundly narrowed below eyes. Occipital carina shortly interrupted dorsally.

Antenna filiform, 23-segmented, almost as long as body. First flagellar segment 3 times as long as its apical width, 1.1 times as long as second segment. Length of penultimate segment 1.7 times its width, 0.6 times length of first and 0.7 times length of apical segments.

Thorax. Length 1.4 times its maximum height. Notauli rather deep, narrow, complete, crenulate. Prescutellar depression long, with distinct median carina, smooth, 0.45 times as long as scutellum. Scutellum with distinct transverse almost smooth depression posteriorly. Sternauli rather deep, narrow, rugulose-punctulate. Propodeum without lateral tubercles, strongly and linearly abruptly from basal 1/3 toward apex (lateral view), with very shallow median depression in posterior half (dorsal view).

Wings. Length of fore wing 2.5 times its width. Length of pterostigma 2.7 times its maximum width. Radial cell shortened, pointed apically, 2.6 times as long as wide. Metacarpus 0.8 times as long as pterostigma, 1.1 times as long as distance from apex of radial cell to apex of wing. Second abscissa of radial vein regularly curved in basal 2/3, almost straight in apical 1/3; radial vein arising from middle of pterostigma. First radial abscissa 0.4 times as long as maximum width of pterostigma, 0.1 times as long as second abscissa. First abscissa of medial vein absent at most part, but present short posterior part of this vein. Recurrent and first radiomedial veins twice broken medially. Distance from nervulus to basal vein 0.7 times nervulus length. In hind wing, basal vein 0.75 times as long as third abscissa of costal vein.

Legs. Hind femur 4.6 times as long as wide. Hind tarsus 0.8 times as long as hind tibia, its second segment 0.4 times as long as first segment, 0.9 times as long as fifth segment (without pretarsus).

Abdomen. First tergite weakly widened posteriorly, with very small spiracular tubercles near middle, with small dorsope, without laterope. Apical width of first tergite 3 times its minimum width, length almost twice its apical width. Length of second and third tergites combined 1.6 times basal width of second tergite. Ovipositor distinctly compressed in apical 1/4, weakly curved down. Ovipositor sheath narrow, as long as first tergite, 0.6 times as long as hind tibia, 0.2 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons shortly striate laterally, face very finely punctulate. Sides of pronotum rather finely rugulose medially, smooth widely above and narrowly below. Median lobe of mesoscutum finely punctulate, rugulose at small area medioposteriorly. Mesopleura smooth on wide median area. Propodeum rugulose, with high median transverse keel and several less distinct longitudinal carinae. Hind coxa smooth. First abdominal tergite almost entirely striate. Median lobe of mesoscutum entirely setose, lateral lobes glabrous at most part.

Colour. Head yellowish brown, darker dorsally. Prothorax light reddish brown. Rest part of thorax and abdomen dark reddish brown. Antennae dark brown, 2 basal segments brownish yellow. Palpi yellow. Legs light reddish brown, yellowish basally. Wings hyaline. Pterostigma brown.

MALE unknown.

DISCUSSION. The new species is similar to *P. (M.) areolatus* Thomson, 1892 and differs in having the face narrow, lateral lobes of mesoscutum almost glabrous, most part of thorax and abdomen dark, antennal segments wide and second segment of hind tarsus short.

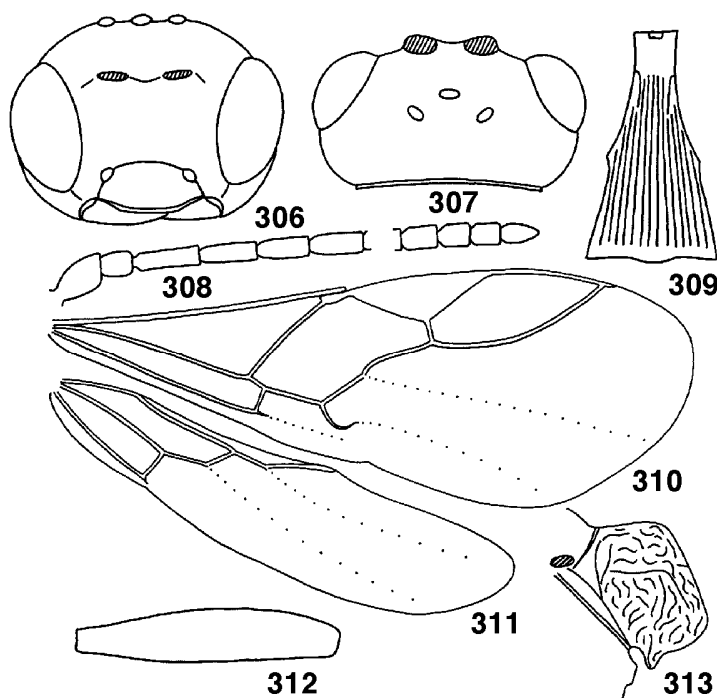
***Perilitus (Microctonus) modestus* Belokobylskij, sp. n.**

Figs 306-313

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 20 km SE Chernigovka, mixed forest, glades, 29.VIII 1998 (S.B.) [ZISP]. Paratypes: Primorskii krai: 3 ♀, Spassk-Dal'niy, forest, glades, 30.VI, 3-6.VII 1993, 16.VIII 1995 (S.B.); 2 ♀, Lyalichi, Ilistaya River, forest, 4.VI 1990 (S.B.); 1 ♀, 20 km ESE Spassk-Dal'niy, border of forest, 5.VIII 1995 (S.B.); 1 ♀, 20 km SE Spassk-Dal'niy, forest, 4.IX 1984 (S.B.); 1 ♀, 30 km E Spassk-Dal'niy, forest, 27.VIII 1982 (S.B.); 1 ♀, Anisimovka, glades, forest, 4.IX 1988 (S.B.); 1 ♀, 10 km SE Chernigovka, forest, glades, 26-28.VIII 1998 (S.B.); 1 ♀, Vladivostok, oak forest, glades, 13.VIII 1993 (S.B.). Sakhalin: 1 ♀, 10 km W Aniva, mixed forest, 15.VIII.1981 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.0-2.5 mm; fore wing length 1.7-2.1 mm. Width of head 1.8-2 times its median length, 1.3 times width of mesoscutum. Occiput concave. Temples behind eyes roundly narrowed, transverse diameter of eye 1.3-1.5 times length of temple. Ocelli medium size, in triangle with base 1.4-1.6 times its lateral sides; posterior margin of median ocellus placed almost on line between anterior margins of lateral ocelli. *POL* 2-2.8 times *Od*, almost equal to *OOL*. Eye with sparse and short hairs, 1.3 times as high as broad. Malar suture present. Malar space narrow, its height 0.5-0.6 times basal width of mandible, 0.15-0.2 times height of eye. Antennal tubercles indistinct. Width of face 1.3-1.5 times its median height, 0.8-1 times height of eye. Tentorial pits distinct, distance between pits 2.5-3 times distance from pit to eye. Clypeus with distinct ventral flange. Width of clypeus almost twice its median height, 0.8 times width of face. Head strongly and roundly narrowed below eyes. Occipital carina complete dorsally.

Antenna thickened, filiform, 21-26-segmented, 0.7-0.8 times as long as body. First flagellar segment almost 3 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.2-1.4 times its width, 0.5 times length of first and 0.6-0.8 times length of apical segments.



Figs 306-313. *Perilitus (Microctonus) modestus* sp. n. 306) head, frontal view; 307) head, dorsal view; 308) basal and apical segments of antenna; 309) first abdominal tergite, dorsal view; 310) fore wing; 311) hind wing; 312) hind femur; 313) propodeum, lateral view.

Thorax. Length 1.4-1.5 times its maximum height. Median lobe of mesoscutum without median depression. Notauli rather deep, wide, complete, crenulate. Pre-scutellar depression long, with distinct median carina, sculptured, 0.4 times as long as scutellum. Scutellum with distinct transverse depression posteriorly. Sternauli rather deep, wide, rugulose-reticulate. Propodeum without lateral tubercles, strongly and almost linearly abruptly from basal $1/3-1/4$ toward apex (lateral view), with wide median depression in posterior half (dorsal view).

Wings. Length of fore wing 2.5-2.6 times its width. Length of pterostigma 3-3.2 times its maximum width. Radial cell shortened, pointed apically, 2.8-3.2 times as long as wide. Metacarpus 0.75 times as long as pterostigma, 1.1 times as long as distance from apex of radial cell to apex of wing. Second abscissa of radial vein regularly curved in basal half, almost straight in apical half; radial vein arising from middle of pterostigma. First radial abscissa 0.4-0.5 times as long as maximum width of pterostigma, 0.1-0.15 times as long as second abscissa. First abscissa of medial vein absent. Recurrent and first radiomedial veins straight or twice broken medially. Distance from nervulus to basal vein 0.5-1 times nervulus length. In hind wing, basal vein 0.6-1 times as long as third abscissa of costal vein.

Legs. Hind femur about 5 times as long as wide. Hind tarsus 0.8-0.9 times as long as hind tibia, its second segment 0.45-0.5 times as long as first segment, 1.3-1.4 times as long as fifth segment (without pretarsus).

Abdomen. First tergite distinctly widened posteriorly, with spiracular tubercles near middle, without dorsope and laterope. Apical width of first tergite 3-3.5 times its minimum width, length 1.7-2 times its apical width. Length of second and third tergites combined 1.4-1.5 times basal width of second tergite. Ovipositor distinctly compressed in apical 1/2-1/3, weakly curved down. Ovipositor sheath narrow, 1.3-1.4 times as long as first tergite, 0.8-0.9 times as long as hind tibia, 0.3 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons striate in anterior 1/2-1/3, face densely and finely punctulate. Sides of pronotum coarsely rugulose-reticulate, smooth upper (usually in narrow area). Mesoscutum finely and densely punctulate, rugulose-striate at medioposterior area. Mesopleura smooth on rather small median area. Propodeum densely and entirely reticulate-rugulose, with or without distinct carinae. Hind coxa smooth, rugulose basally only. First abdominal tergite almost entirely striate. Median lobe of mesoscutum entirely and lateral lobes in basal 1/3-1/4 setose.

Colour. Head light reddish brown, face yellowish brown. Thorax and first abdominal tergite dark reddish brown; mesopleura often reddish brown or light reddish brown. Rest part of abdomen reddish brown, sometimes lighter laterally. Sometimes first tergite reddish brown and yellowish basally. Antennae almost black, 2 basal segments light brown. Palpi yellow. Legs light reddish brown, tarsus and usually hind tibia darker. Wings almost hyaline. Pterostigma brown.

MALE unknown.

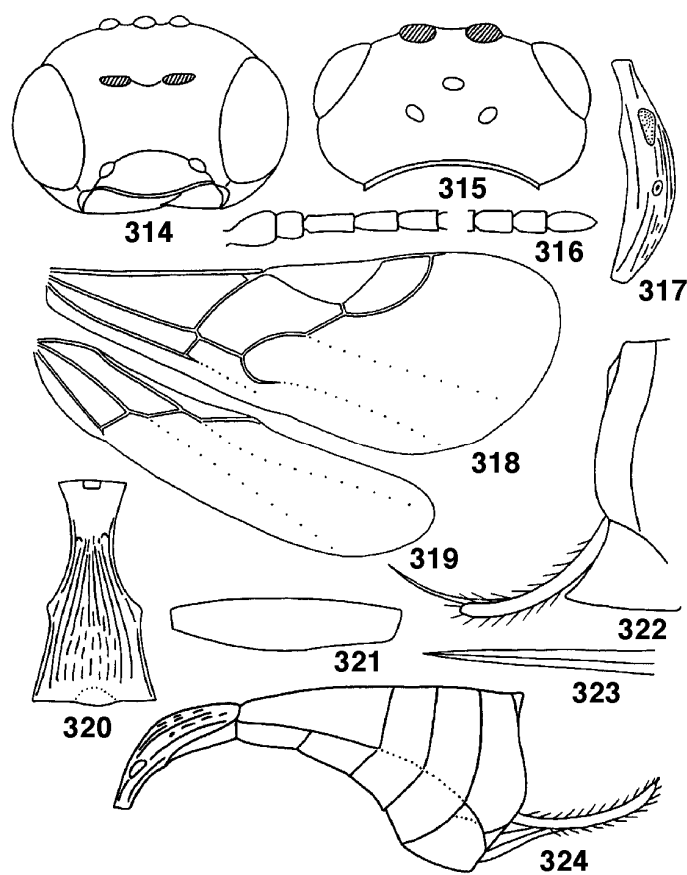
DISCUSSION. The new species is similar to *P. (M.) areolatus* Thomson, 1892 and differs in having the thorax and abdomen dark, lateral lobes of mesoscutum mostly glabrous, antennal segments thicker, propodeum short and strongly abruptly from basal 1/3-1/4 and head strongly roundly narrowed lower eyes.

***Perilitus (Microctonus) rasnitsyni* Belokobylskij, sp. n.**

Figs 314-324

MATERIAL. Holotype: ♀, Russia: Tuva, Ersin, 28.V 1975 (D.K.) [ZISP]. Paratypes: 2♀, 2♂, with the same label as holotype; 3♀, Chitinskaya oblast', Dzhidotoi, 140 km from Chita on Vitim road, 12-14.VI 1961 (A. Rasnitsyn) [ZISP].

DESCRIPTION. FEMALE. Body length 2.5-2.7 mm; fore wing length 2.1 mm. Width of head 1.8-2 times its median length, 1.3 times width of mesoscutum. Occiput strongly concave. Temples behind eyes slightly convex in anterior 1/3 and strongly narrowed in posterior 2/3, transverse diameter of eye 1.1-1.2 times length of temple. Ocelli medium size, in triangle with base 1.3-1.4 times its lateral sides; posterior margin of median ocellus placed before line between anterior margins of lateral ocelli. *POL* 2.8-3.3 times *Od*, equal to *OOL*. Eye with very sparse and short hairs, 1.3-1.4 times as high as broad. Malar suture present. Malar space very narrow, its height 0.3-0.35 times basal width of mandible, 0.1 times height of eye. Antennal tubercles indistinct. Width of face 1.7 times its median height, almost equal to height of eye. Tentorial pits distinct, distance between pits 3-3.4 times distance from pit to eye. Clypeus with narrow ventral flange. Width of clypeus 2-2.5 times its median height, 0.8 times width of face. Head very strongly and roundly narrowed below eyes. Occipital carina widely interrupted dorsally.



Figs 314-324. *Perilitus (Microctonus) rasnitsyni* sp. n. 314) head, frontal view; 315) head, dorsal view; 316) basal and apical segments of antenna; 317, 320) first abdominal tergite (317 - lateral view; 320 - dorsal view); 318) fore wing; 319) hind wing; 321) hind femur; 322) apex of abdomen and ovipositor, lateral view; 323) ovipositor, dorsal view; 324) abdomen, lateral view.

Antenna filiform, 16-17-segmented, 0.6-0.7 times as long as body. First flagellar segment 2.7-3 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.5 times its width, 0.6 times length of first and 0.55-0.75 times length of apical segments.

Thorax. Length 1.3-1.4 times its maximum height. Notauli rather shallow, wide, complete, crenulate. Median lobe of mesoscutum with shallow longitudinal median depression. Prescutellar depression long, with distinct median carina, sparsely crenulate, 0.4 times as long as scutellum. Scutellum with distinct shallow transverse sculptured depression posteriorly. Sternauli shallow, wide, rugulose-reticulate. Mesosternal suture very deep and rather wide. Propodeum without lateral tubercles, very strongly, roundly and more or less regularly abrupted toward apex (lateral view), with shallow and wide depression in posterior half (dorsal view).

Wings. Length of fore wing 2.6-2.7 times its width. Length of pterostigma 3-3.3 times its maximum width. Radial cell strongly shortened, obtuse apically, 2.3 times as long as wide. Metacarpus 0.4-0.45 times as long as pterostigma, 1.3 times as long as width of pterostigma, 0.4 times as long as distance from apex of radial cell to apex of wing. Second abscissa of radial vein regularly curved; radial vein arising behind middle of pterostigma. First radial abscissa 0.3-0.4 times as long as maximum width of pterostigma, 0.1-0.15 times as long as second abscissa. First abscissa of medial vein absent. Recurrent vein distinctly curved. Distance from nervulus to basal vein 0.3-0.6 times nervulus length. In hind wing, basal vein 1.4-1.7 times as long as third abscissa of costal vein.

Legs. Hind femur 4.5-4.8 times as long as wide. Hind tarsus 0.8 times as long as hind tibia, its second segment 0.45-0.5 times as long as first segment, equal to or 1.1-1.3 times longer than fifth segment (without pretarsus).

Abdomen. First tergite distinctly widened posteriorly, with small spiracular tubercles near middle and small but distinct laterope. Apical width of first tergite 3-3.5 times its minimum width, length 1.7 times its apical width. Length of second and third tergites combined 1.3-1.4 times basal width of second tergite. Ovipositor depressed, distinctly curved up. Ovipositor sheath narrow, 0.8-0.9 times as long as first tergite, 0.5-0.6 times as long as hind tibia, 0.2 times as long as fore wing.

Sculpture and pubescence. Head smooth, frons finely granulate punctulate laterally, face finely rugulose-granulate. Sides of pronotum rugulose-striate, smooth upper at narrow part. Mesoscutum densely punctulate, rugulose-striate on small area medioposteriorly. Mesopleura smooth on rather wide median area. Propodeum entirely and densely reticulate-rugulose, without areas and carinae. Hind coxa smooth. First abdominal tergite densely striate at most part. Median lobe of mesoscutum entirely and lateral lobes almost entirely (except narrow submedian area) pubescence.

Colour. Head and abdomen reddish brown or dark reddish brown; face, clypeus and lower part of head brownish yellow; sometimes abdomen apically light reddish brown. Thorax black, lighter laterally. Antennae dark reddish brown, 3 basal segments lighter. Palpi light reddish brown. Legs light reddish brown or reddish brown, darker basally. Wings hyaline. Pterostigma brown.

MALE. Body length 2.2-2.7 mm; fore wing length 2.1-2.2 mm. Antennae thick. First flagellar segment 2.4-2.5 times as long as wide. Body black, abdomen medially dark reddish brown. Otherwise similar to female.

DISCUSSION. This new species is similar to *P. (M.) tuvaensis* sp. n. and differs in having the ovipositor depressed in apical half, ovipositor sheath not widened apically, frons smooth medially and hind femur thicker.

ETYMOLOGY. This species is named after Dr. A.P. Rasnitsyn, the famous Russian hymenopterist.

(To be continued)

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