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

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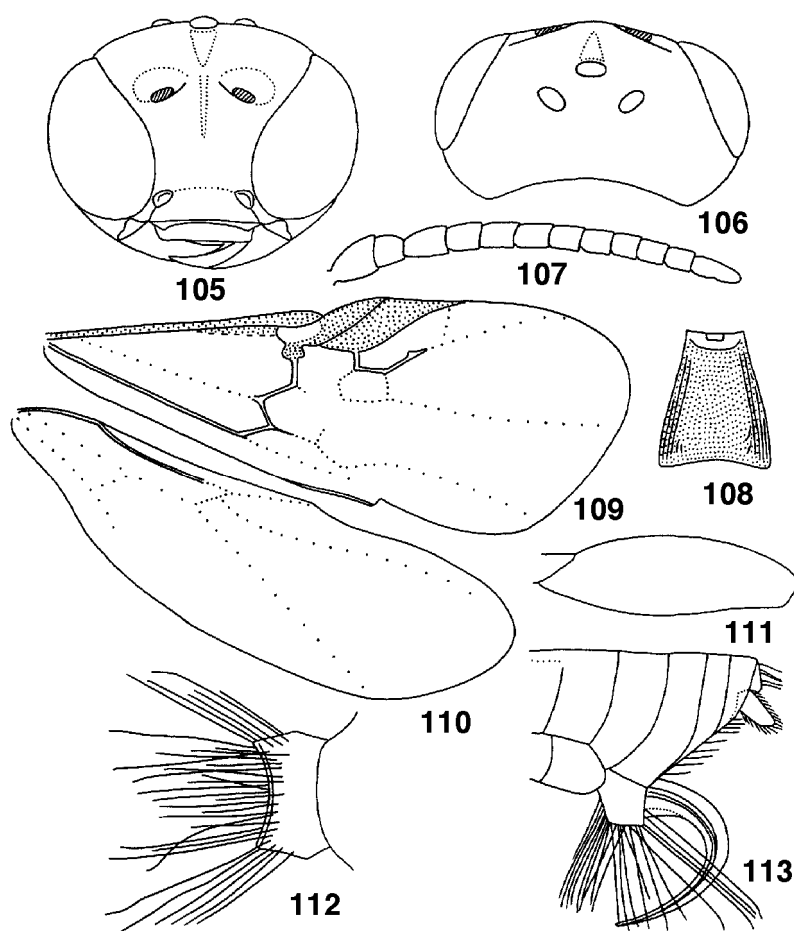
***Elasmosoma trichopygidium* Belokobylskij, sp. n.**

Figs 105-113

MATERIAL. Holotype: ♀, Japan: Honshu, Ibaraki, Yatabe, 10-15.VII 1982 (N. Fukuhara) [NIAES]. Paratypes: 1 ♀ with same label as holotype [ZISP]; 2 ♀, Japan: Aichi, Kasugai, Takagi, YPT, 15-21.VI 1994 (Y. Suzuki) [NIAES].

DESCRIPTION. FEMALE. Body length 2.1-2.2 mm; fore wing length 1.5 mm. Head width 2-2.1 times its median length, 1.2 times width of mesoscutum. Temple distinctly and roundly narrowed behind eye, transverse diameter of eye 2-2.2 times length of temple (2-2.4 times on straight line). Ocellar triangle with base 1.4 times its sides; *POL* 1.4-1.6 times *Od*, 0.9-1 times *OOL*. Eye glabrous, 1.3-1.5 times as high as broad. Malar space very short, almost absent medially. Face weakly convex, its width 0.45-0.5 times eye height and almost equal to face height. Tentorial pits almost connected with eyes. Clypeal suture distinct. Clypeus almost flat, weakly concave ventrally, its width 2.4-2.8 times median height. Hypostomal flange absent.

Antennae thickened, 12-13-segmented, 0.7 times as long as head and thorax combined. Scape 1.3-1.5 times as long as apical width, 1.5-1.7 times as long as pedicellus. First flagellar segment 1.4-1.7 times as long as apical width, 1.5-2 times as long as pedicellus, 1.1-1.2 times as long as second flagellar segment. Penultimate segment 1.1-1.3 times as long as wide.



Figs 105-113. *Elasmosoma trichopygidium* sp. n. 105) head, frontal view; 106) head, dorsal view; 107) antenna; 108) first abdominal tergite; 109) fore wing; 110) hind wing; 111) hind femur; 112) hypopygium, ventral view; 113) apical part of abdomen and ovipositor, lateral view.

Thorax. Length 1.2-1.4 times its height. Mesoscutum without notauli. Prescutellar depression distinct, short, crenulate. Metanotum with median carina. Sternauli very shallow and rather wide, rugulose granulate. Propodeum not abrupted in basal half (lateral view), distinctly and obliquely abrupted in posterior half.

Wings. Fore wing 2.3-2.4 times as long as wide. Metacarpus short and wide, 0.2-0.3 times as long as pterostigma. Transverse vein of radial cell present, but strongly unsclerotized. Recurrent and apical part of third abscissa of radial veins almost absent. Nervulus strongly declivous. Distance from basal vein to nervulus 0.8-1 times nervulus length. Hind wing membrane densely setose basally.

Legs. Fore tarsus 1.2-1.3 times as long as fore tibia. Hind femur 2.8-3.3 times as long as wide. Hind tarsus 1.1-1.2 times as long as hind tibia; basitarsus 0.5 times second-fifth segments combined, second segment 0.5 times as long as basitarsus. Claws rather long and narrow, almost straight. Inner spur of hind tibia 0.8-0.9 times as long as hind basitarsus; outer spur 0.6-0.7 times as long as hind basitarsus.

Abdomen. First tergite rather narrow, usually regularly and almost linearly widened from base to apex, without spiracular tubercles or sometimes it present submedially, flat in anterior half and convex in posterior half (lateral view), apical margin of tergite concave medially. Apical width of tergite almost twice times its minimum width; length almost equal to its apical width. Second suture very shallow and smooth. Length of second tergite 0.6-0.7 times its basal width, 0.9-1 times length of third tergite. Hypopygium rather small, weakly concave in posterior margin, with small and weakly pointed lateral corners; width of hypopygium 1.6-1.8 times maximum length. Ovipositor sheath 0.4 times as long as hind basitarsus.

Sculpture and pubescence. Vertex and frons densely transversely striate, with granulation and rugulosity between striae in posterior part of vertex. Face and clypeus densely transversely striate. Mesoscutum densely rugulose-striate, with small areolation medioposteriorly. Scutellum very densely reticulate. Mesopleura rugulose-granulate, finely reticulate below, widely smooth along pleural suture. Propodeum widely reticulate-rugulose in posterior half, densely granulate in anterior half, with curved high transverse submedian carina; with rather large triangular areola or it is absent. Hind coxa densely granulate, smooth in dorsal cavity. First tergite rugulose-granulate, usually with striation laterally. Second-third tergites densely granulate, rest tergites finely granulate. Hypopygium with very long and rather dense hairs, placed usually in posterior half only.

Colour. Head, thorax, first tergite and apical 1/3 of abdomen black or dark reddish brown, sometimes abdomen in apical half light reddish brown. Clypeus and mandible yellow. Second tergite entirely and third in basal 2/3 yellow or light brown. Antenna dark brown or black, 2 basal segments yellow. Legs yellow. Hypopygium light brown usually. Wings faintly infusate. Pterostigma dark brown.

MALE unknown.

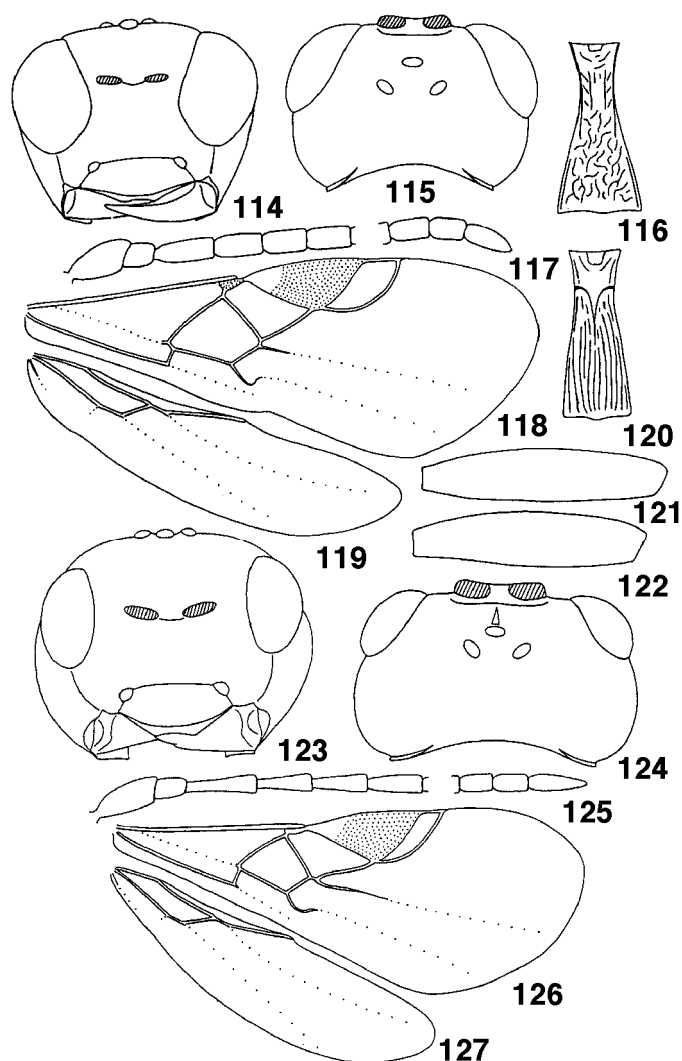
DISCUSSION. The new species is similar to *E. ciliatum* Tobias, 1986 from North-western Caucasus (Tobias, 1986) and differs in having the hypopygium small with small posterolateral processes and very long hairs covering apical 1/4 of hypopygium.

***Leiophron (Euphorus) alkonost* Belokobylskij, sp. n.**

Figs 114-119, 121

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 30 km E Spassk-Dal'niy, forest, 12.VII 1995 (S.B.) [ZISP]. Paratypes: Primorskii krai: 1 ♀, 10 km SE Partizansk, oak forest, 20.VII 1984 (S.B.); 1 ♀, 30 km E Spassk-Dal'niy, forest, glades, 4.VI 1984 (S.B.); 2 ♀, Anisimovka, forest, glades, 11-12.VII 1984 (S.B.) [ZISP].

Description. Female. Body length 2.3-2.6 mm; fore wing length 1.8-2.0 mm. Width of head 1.6-1.7 times its median length, 1.3 times width of mesoscutum. Temples behind eyes distinctly uniformly and roundly narrowed; transverse diameter of eye 1.3-1.4 times length of temple (about 1.5 times on straight line). Ocelli in triangle with base 1.3-1.4 times its lateral sides; *POL* 1.5-1.7 times *Od*,



Figs 114-127. *Leiophron (Euphorus) alkonost* sp. n. (114-119, 121) and *L. (E.) gyrinus* sp. n. (120, 122-127). 114, 123) head, frontal view; 115, 124) head, dorsal view; 116, 120) first abdominal tergite; 117, 125) basal and apical segments of antenna; 118, 126) fore wing; 119, 127) hind wing; 121, 122) hind femur.

0.8-0.9 times *OOL*. Eye with sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height 0.6-0.7 times basal width of mandible, 0.2-0.25 times height of eye. Face convex, its width about 1.1 times its median height, 0.6 times height of eye. Distance between tentorial pits 3.5-4.3 times distance from pit to eye. Clypeus with short but distinct ventral flange. Width of clypeus about 3 times its median height, 1.2-1.3 times width of face. Head distinctly

and roundly narrowed below eyes. Occipital carina not fused with hypostomal carina ventrally. Hypostomal flange very small.

Antenna almost filiform, rather thick, 16-segmented. Scape twice as long as wide. First flagellar segment 2.6-2.7 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.8-2 times its width, 0.7 times length of apical segment.

Thorax. Length 1.5-1.6 times its maximum height. Notauli deep, rather wide, complete, crenulate. Prescutellar depression long, with distinct median carina, almost entirely smooth or finely sculptured, 0.4-0.45 times as long as scutellum. Scutellum convex. Subalar depression shallow, wide, rugulose-punctulate. Sternauli deep anteriorly, shallow posteriorly, wide, rugulose-punctate. Mesopleura with distinct sculptured oblique furrow from mesopleural pit to sternauli. Metapleural lobe wide and sculptured.

Wings. Length of fore wing 2.5 times its width. Length of pterostigma 2.2 times its maximum width. Radial cell 2.8-2.9 times as long as wide. Metacarpus 0.2-0.3 times as long as pterostigma, 0.5-0.6 times as long as width of pterostigma. Radial vein arising from middle of pterostigma near first radiomedial vein. Radial vein with 1 abscissa, which is regularly curved. Recurrent vein postfurcal, 0.4-0.5 times as long as first radiomedial vein. Discoidal cell shortly petiolate. Second and third abscissae of cubital vein and base of parallel vein sclerotized. Distance from nervulus to basal vein about 0.4 times nervulus length. Medial and submedial cells entirely and densely setose, but sparsely setose basally. In hind wing, basal vein 1-1.2 times as long as second abscissa of mediocubital vein, 1.3-1.4 times as long as third abscissa of costal vein. Nervellus almost entirely absent.

Legs. Hind femur 4.2-4.5 times as long as wide. Hind tarsus almost 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). Fifth segment of fore and middle legs weakly thickened. Claws simple.

Abdomen. First tergite distinctly widened posteriorly, without spiracular tubercles, with small dorsope. Apical width of first tergite 2-2.7 times its minimum width, length 1.7-2 times its apical width. Length of second and third tergites combined 3-3.4 times basal width of second tergite, 1.3-1.5 times their maximum width.

Sculpture and pubescence. Head smooth, face finely and densely punctulate. Mesoscutum smooth laterally, median lobe sparsely punctulate. Scutellum smooth. Mesopleura smooth at most part or densely punctulate in posterior upper quarter. Propodeum entirely rugulose-reticulate, without distinct carinae. Hind coxa smooth. First abdominal tergite entirely rugose-reticulate, with 2 weakly divergent and not fused dorsal carinae. Median lobe of mesoscutum entirely sparsely setose, lateral lobes glabrous.

Colour. Body black, sometimes abdomen dark reddish brown; head reddish brown, darker dorsally, face, malar space and mandible brownish yellow. Antennae yellowish brown, yellow basally, darker apically. Palpi pale yellow. Legs yellow, hind tibia darker in apical half. Wings faintly infusate. Pterostigma brown, yellow in basal 1/4.

MALE unknown.

DISCUSSION. The new species is similar to Chinese *L. (E.) rufithorax* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the first flagellar segment shorter, malar space longer, notauli rather wide, nervulus postfurcal, radial cell narrow, first tergite reticulate-rugose and most part of body black.

***Leiophron (Euphorus) gyrinus* Belokobylskij, sp. n.**

Figs 120, 122-127

MATERIAL. Holotype: ♂, Russia: Primorskii krai, Vladivostok, forest, glades, 3.VII 1996 (S.B.) [ZISP]. Paratypes: Primorskii krai: 1 ♂, 30 km E Spassk-Dal'niy, forest, 7.VII 1993 (S.B.); 1 ♂, 15 km E Chernigovka, Gornyi Khutor, forest, 2.VI 1993 (S.B.); 3 ♂, Vladivostok, forest, 17.VI 1990 (S.B.); 1 ♂, the same locality, oak forest, 23.VI 1985 (D.K.); 1 ♂, 20 km SW Putsilovka, Monakino, forest, glades, 24-28.VI 1993 (S.B.); 1 ♂, 15 km SW Spassk-Dal'niy, forest, glades, 14.VII 1995 (S.B.); 1 ♂, 20 km ENE Partizansk, forest, 9-10.VII.1996 (S.B.) [ZISP].

DESCRIPTION. MALE. Body length 2.5-2.8 mm; fore wing length 2.2-2.5 mm. Width of head 1.7 times its median length, 1.3-1.4 times width of mesoscutum. Temples behind eyes distinctly roundly convex in anterior 2/3, weakly roundly narrowed in posterior 1/3; transverse diameter of eye 0.85-0.9 times length of temple. Width of head at level of temple 1-1.1 times width at level of eyes. Ocelli in triangle with base 1.2-1.3 times its lateral sides; *POL* 1.5-1.9 times *Od*, 0.55-0.6 times *OOL*. Eye glabrous, 1.3-1.4 times as high as broad. Malar suture distinct. Malar space height 0.9-1 times basal width of mandible, 0.5-0.55 times height of eye. Face convex, its width 1.8-2 times its median height, about 1.3 times height of eye. Distance between tentorial pits about twice distance from pit to eye. Clypeus with distinct, rather narrow and short ventral lobe, which is concave medioanteriorly. Width of clypeus 2.3-2.6 times its median height, about 0.8 times width of face. Head convexly and strongly roundly narrowed below eyes. Occipital carina not fused with hypostomal carina ventrally and widely separated. Hypostomal flange very small. Second segment of maxillary palpi distinctly widened.

Antenna almost filiform, 16-segmented. Scape 2-2.2 times as long as wide. First flagellar segment 2.8-3.4 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.8-2.2 times its width, 0.6-0.7 times length of apical segment.

Thorax. Length 1.5 times its maximum height. Notauli rather deep, narrow, complete, crenulate. Prescutellar depression deep, long, with distinct median carina, sculptured, 0.5-0.6 times as long as scutellum. Scutellum convex. Subalar depression shallow, narrow, striate-rugulose. Sternauli shallow, rather wide, oblique, rugulose-crenulate, with shallow and rather wide crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with distinctly sculptured oblique furrow from mesopleural pit to sternauli. Metapleural lobe wide and sculptured.

Wings. Length of fore wing 2.5-2.7 times its width. Length of pterostigma 2.2-2.3 times its maximum width. Radial cell 3.6-4.3 times as long as wide. Metacarpus 0.2 times as long as pterostigma, 0.45-0.5 times as long as width of pterostigma. Radial vein arising almost from middle of pterostigma near first radiomedial vein. Radial vein with 1 abscissa, which is not strongly and regularly curved; sometimes present 2 abscissae, but first one is very short. Recurrent vein antefurcal, 0.4-0.5 times as long as first radiomedial vein. Second and third abscissae of cubital vein and base of parallel vein sclerotized. Nervulus interstitial or weakly postfurcal. In hind wing, basal vein 1.3-1.7 times as long as second abscissa of mediocubital vein, 1.7-2.2 times as long as third abscissa of costal vein. Nervellus almost entirely absent.

Legs. Hind femur 4-4.2 times as long as wide. All tibiae distinctly widened toward apex. Hind tarsus almost as long as hind tibia, its second segment 0.4 times as long as first segment, 1-1.1 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs not thickened. Claws simple.

Abdomen. First tergite widened posteriorly, with small spiracular tubercles near middle, with small dorsope. Apical width of first tergite 2-2.2 times its minimum width, length 1.9-2.3 times its apical width. Length of second and third tergites combined 2.5-2.6 times basal width of second tergite, 1.2 times their maximum width. Parameres of male genitalia round and obtuse apically.

Sculpture and pubescence. Head smooth, face very finely punctulate. Median lobe of mesoscutum very finely punctulate, lateral lobes smooth. Mesopleura smooth, with fine sculpture partly. Propodeum rugulose-reticulate, without distinct carinae, with short semicircular smooth laterobasal areas. Hind coxa and all femora smooth. First abdominal tergite striate, with rugulosity in basal 1/3, dorsal carinae distinct and fused in basal 1/3. Median lobe of mesoscutum in anterior half and lateral lobes in anterior 1/4 setose.

Colour. Body light reddish brown, head lighter, abdomen reddish brown, almost black apically; sometimes body darker, reddish brown. Antennae light brown basally, brown in apical 1/2-2/3. Palpi yellowish brown or yellow. Legs brownish yellow. Wings infusate. Pterostigma brown, yellow in basal 2/5.

FEMALE unknown.

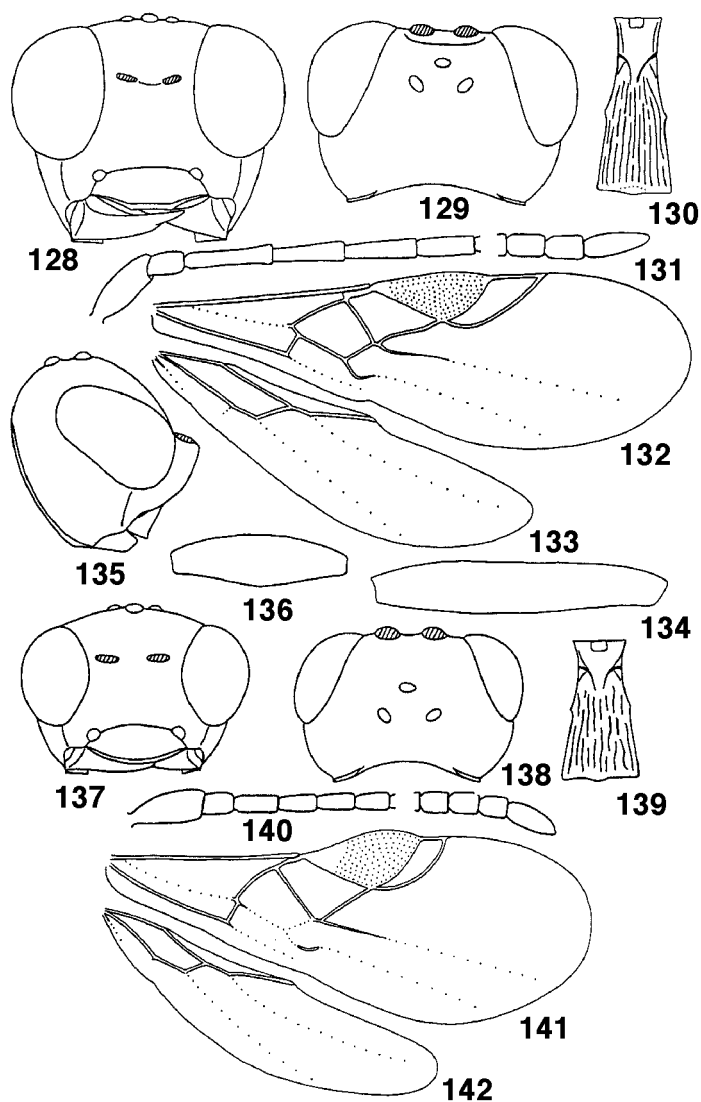
DISCUSSION. The new species is similar to Chinese *L. evidus* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the head behind eyes more strongly convex and usually the widest at level of temple, second segment of maxillary palpi distinctly widened, antennae filiform, penultimate segment narrow, malar space wide, notauli entirely deep and wings infusate. *L. gyrinus* sp. n. is similar to *L. maacki* Belokobylskij, 1993 and differs in having the radial cell narrow, first tergite distinctly widened apically, head light, recurrent vein of fore wing sclerotized and second segment of maxillary palpi distinctly widened.

***Leiophron (Euphorus) janus* Belokobylskij, sp. n.**

Figs 128-134

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 10 km E Partizansk, Frolovka, forest, 21.VI 1990 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.5 mm; fore wing length 2.3 mm. Width of head 1.7 times its median length, 1.4 times width of mesoscutum. Temples behind eyes distinctly and almost linearly narrowed; transverse diameter of eye 2.2 times length of temple (almost twice on straight line). Ocelli in triangle with base 1.2 times its lateral sides; *POL* twice *Od*, 1.2 times *OOL*. Eye glabrous, 1.4 times as high as broad. Malar suture distinct. Malar space height equal to basal width of mandible, 0.2 times height of eye. Face weakly convex, its width almost equal to median height, about 0.5 times height of eye. Distance between tentorial pits 3.5 times distance from pit to eye. Clypeus ventrally with short and wide median lobe, which is almost straight medioanteriorly. Width of clypeus 2.5 times its median height, 1.2 times width of face. Head distinctly and linearly narrowed below eyes. Occipital carina not fused with hypostomal carina ventrally and widely separated. Hypostomal flange small. Second segment of maxillary palpi not widened.



Figs 128-142. *Leiophron (Euphorus) janus* sp. n. (128-134) and *L. (E.) pygmaeus* sp. n. (135-142). 128, 137) head, frontal view; 129, 138) head, dorsal view; 130, 139) first abdominal tergite; 131, 140) basal and apical segments of antenna; 132, 141) fore wing; 133, 142) hind wing; 134, 136) hind femur; 135) head, lateral view.

Antenna filiform, slender, 16-segmented. Scape 2.5 times as long as wide. First flagellar segment 4.5 times as long as its apical width, 1.2 times as long as second segment. Length of penultimate segment 1.7 times its width, 0.6 times length of apical segment.

Thorax. Length 1.6 times its maximum height. Notauli deep, narrow, complete and crenulate. Prescutellar depression rather long, with fine median carina, crenulate, 0.4 times as long as scutellum. Scutellum weakly convex. Subalar depression rather deep, wide, punctulate-rugulose. Sternauli rather shallow, narrow, rugulose-punctate, running almost along all length of lower part of mesopleura. Mesopleura with sculptured oblique deep furrow from mesopleural pit to sternauli. Metapleural lobe rather wide and sculptured.

Wings. Length of fore wing 2.9 times its width. Length of pterostigma 2.5 times its maximum width. Radial cell 3 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 0.9 times as long as width of pterostigma. Radial vein arising slightly behind middle of pterostigma near first radiomedial vein. Radial vein with 1 abscissa, which is regularly curved. All veins (except second abscissa of anal vein) distinctly sclerotized. Recurrent vein antefurcal, 0.55 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.7 times nervulus length. In hind wing, basal vein 1.4 times as long as second abscissa of mediocubital vein, 1.7 times as long as third abscissa of costal vein. Nervellus absent.

Legs. Hind femur 5.8 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, 1.2 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs not thickened. Claws simple.

Abdomen. First tergite weakly widened posteriorly, with very small spiracular tubercles behind middle, with distinct dorsope. Apical width of first tergite twice its minimum width; length 2.2 times its apical width. Length of second and third tergites combined 2.6 times basal width of second tergite, 1.4 times their maximum width.

Sculpture and pubescence. Head smooth, face densely and finely punctulate. Median lobe of mesoscutum rather densely and very finely punctulate, lateral lobes smooth. Mesopleura sparsely punctulate, partly smooth. Propodeum coarsely rugulose-reticulate, with short semicircular and rugulose laterobasal areas. Hind coxa and all femora smooth. First abdominal tergite striate-rugulose. Median lobe of mesoscutum entirely and lateral lobe in anterior 1/5 setose.

Colour. Body black, clypeus and malar space reddish brown. Antennae dark brown, 4 basal segments yellow. Palpi pale yellow. Legs light brown, hind tibia in apical 4/5 and hind tarsus darker, brown. Wings very faintly infuscate. Pterostigma dark brown, yellow in basal 1/3.

MALE unknown.

DISCUSSION. The new species is similar to Chinese *L. (E.) rufithorax* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the temple shorter, face densely punctulate, sternauli deep, hind femur slender, first abdominal tergite slender with distinct dorsope and body almost entirely black.

***Leiophron (Euphorus) pygmaeus* Belokobylskij, sp. n.**

Figs 125-142

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 20 km SE Ussuriysk, forest, 18.VII 1996 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 1.6 mm; fore wing length 1.4 mm. Width of head 1.7 times its median length, 1.4 times width of mesoscutum. Temples

behind eyes distinctly roundly narrowed; transverse diameter of eye 1.6 times length of temple (1.7 times on straight line). Ocelli in triangle with base 1.2 times its lateral sides; *POL* twice *Od*, 0.7 times *OOL*. Eye with very sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height about 0.5 times basal width of mandible, 0.17 times height of eye. Face distinctly convex, its width 1.4 times its median height, 0.6 times height of eye. Distance between deep tentorial pits 3 times distance from pit to eye. Clypeus ventrally with very short and wide median lobe, which is almost straight medioanteriorly. Width of clypeus 2.5 times its median height, 1.1 times width of face. Head distinctly and almost linearly narrowed below eyes. Occipital carina not fused with hypostomal carina ventrally and distinctly separated. Hypostomal flange small. Second segment of maxillary palpi not widened.

Antenna weakly claviform, 16-segmented. Scape 2.2 times as long as wide. First flagellar segment 2.3 times as long as its apical width, 1.1 times as long as second segment. Length of penultimate segment 1.15 times its width, 0.6 times length of apical segment.

Thorax. Length 1.6 times its maximum height. Notauli shallow, rather wide, almost complete and crenulate. Prescutellar depression short, with median carina, entirely sculptured, 0.3 times as long as scutellum. Scutellum weakly convex. Subalar depression rather shallow, wide, smooth. Sternauli shallow, rather narrow, rugulose-crenulate, running almost along all length of lower part of mesopleura. Mesopleura without oblique furrow. Metapleural lobe rather narrow and sculptured.

Wings. Length of fore wing 2.7 times its width. Length of pterostigma twice its maximum width. Radial cell 4 times as long as wide. Metacarpus 0.16 times as long as pterostigma, 0.3 times as long as width of pterostigma. Radial vein arising from middle of pterostigma very closely to first radiomedial vein. Radial vein with 1 abscissa, which is more or less regularly curved. Present first and second abscissae of medial and first radiomedial veins. Unsclerotized or absent first and second abscissae of cubital and recurrent veins. Nervulus weakly postfurcal. In hind wing, basal vein 0.4 times as long as second abscissa of mediocubital vein, 0.6 times as long as third abscissa of costal vein. Nervellus almost entirely absent.

Legs. Hind femur 3.4 times as long as wide. Hind tarsus 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 weakly thickened. Claws simple.

Abdomen. First tergite widened posteriorly, with small spiracular tubercles near middle, with distinct dorsope. Apical width of first tergite 1.8 times its minimum width, length 1.6 times its apical width. Length of second and third tergites combined 2.4 times basal width of second tergite, 1.2 times their maximum width.

Sculpture and pubescence. Head smooth, face very finely punctulate. Median lobe of mesoscutum with deep and rather dense punctulation, lateral lobes smooth in posterior half, finely punctulate in anterior half. Mesopleura at most part smooth. Propodeum rather coarsely rugulose-reticulate, with short semicircular and almost smooth laterobasal areas. Hind coxa smooth, all femora finely and sparsely punctulate. First abdominal tergite rugulose-reticulate. Mesoscutum almost entirely and sparse setose.

Colour. Body black, with reddish spots, face reddish brown, clypeus light reddish brown. Antennae brownish yellow in basal 1/3, dark brown or black in rest part. Palpi pale yellow. Legs brownish yellow, hind tibia apically darkened. Wings very faintly infuscate. Pterostigma brownish grey, pale in basal 1/3.

MALE unknown.

DISCUSSION. The new species is similar to *L. (E.) arsenjevi* Belokobylskij, 1993 (Belokobylskij, 1993) and differs in having the notauli shallow, head angulated medioanteriorly, mesoscutum densely punctulate, first flagellar segment short and head below eyes almost linearly narrowed.

***Leiophron (Euphorus) reductus* Belokobylskij, sp. n.**

Figs 143-149

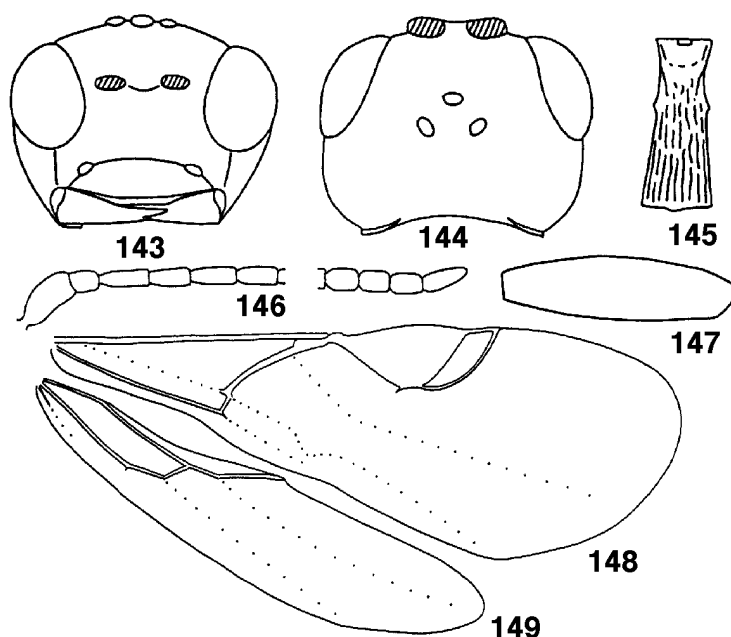
MATERIAL. Holotype: ♀, Russia: Primorskii krai, Spassk-Dal'niy, forest, 30.VI 1989 (S.B.) [ZISP]. Paratypes: Primorskii krai: Spassk-Dal'niy, glades, 3-6.VII 1993 (S.B.); 1 ♀, 20 km SE Ussuriysk, forest, glades, 1.VII 1991 (S.B.); 1 ♀, 2 ♂, 25 km SW Slavyanka, Sukhanovka, forest, shrubs, 18-20.VIII 1998 (S.B.); 1 ♂, 20 km ENE Partizansk, forest, 9-10.VII 1996 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 1.6-1.8 mm; fore wing length 1.4-1.5 mm. Width of head 1.4-1.5 times its median length, 1.4 times width of mesoscutum. Temples behind eyes weakly roundly narrowed; transverse diameter of eye 1.2-1.3 times length of temple (1-1.1 times on straight line). Ocelli in triangle with base 1.2-1.3 times its lateral sides; *POL* 1.2-1.3 times *Od*, about 0.5 times *OOL*. Eye glabrous, 1.4 times as high as broad. Malar suture distinct. Malar space height 0.7-0.9 times basal width of mandible, 0.25-0.5 times height of eye. Face convex, its width about 1.2 times its median height, about 0.7 times height of eye. Distance between tentorial pits 2.8 times distance from pit to eye. Clypeus ventrally with wide and short median lobe, which is almost straight medioanteriorly. Width of clypeus 2.8-3 times its median height, 1.2 times width of face. Head distinctly and weakly roundly narrowed below eyes. Occipital carina not fused with hypostomal carina ventrally and distinctly separated. Hypostomal flange small. Second segment of maxillary palpi not widened.

Antenna weakly claviform, 16-segmented. Scape twice as long as wide. First flagellar segment 2.6-2.8 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.4-1.5 times its width, 0.7 times length of apical segment.

Thorax. Length 1.4-1.6 times its maximum height. Notauli deep and crenulate on vertical surface of mesoscutum, absent on horizontal surface. Prescutellar depression deep, long, with median carina, finely sculptured or smooth, 0.4 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather wide, almost smooth. Sternauli shallow, wide, oblique, crenulate, with shallow and very narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured oblique and shallow furrow from mesopleural pit to sternauli. Metapleural lobe wide and almost smooth.

Wings. Length of fore wing 2.6 times its width. Length of pterostigma 2-2.3 times its maximum width. Radial cell 3.3-3.7 times as long as wide. Metacarpus 0.2-0.25 times as long as pterostigma, 0.4-0.45 times as long as width of pterostigma. Radial vein arising slightly behind middle of pterostigma near first radiomedial



Figs 143-149. *Leiophron (Euphorus) reductus* sp. n. 143) head, frontal view; 144) head, dorsal view; 145) first abdominal tergite; 146) basal and apical segments of antenna; 147) hind femur; 148) fore wing; 149) hind wing.

vein. Radial vein with 1 abscissa, which is more or less regularly curved. Unsclerotized or absent most part of first radiomedial vein, all medial abscissae, first and second abscissae of cubital, recurrent and parallel veins. Nervulus interstitial or weakly postfurcal. In hind wing, basal vein 0.7-0.8 times as long as second abscissa of mediocubital vein, 0.8 times as long as third abscissa of costal vein. Nervellus almost entirely absent.

Legs. Hind femur 3.4-3.6 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, 1.2 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs weakly thickened. Claws simple.

Abdomen. First tergite weakly widened posteriorly, without spiracular tubercles, with very small dorsope. Apical width of first tergite 1.5-1.8 times its minimum width, length 2.1-2.4 times its apical width. Length of second and third tergites combined 1.9-2 times basal width of second tergite, 0.9-1.1 times their maximum width.

Sculpture and pubescence. Head smooth, face finely punctulate. Mesoscutum entirely and mesopleura at most part smooth. Propodeum largely areolate, areolation smooth or with fine granulation or rugulosity, with short semicircular smooth laterobasal areas. Hind coxa and all femora smooth. First abdominal tergite rugulose-striate. Median lobe of mesoscutum entirely setose, lateral lobes glabrous.

Colour. Body brownish yellow, sometimes with reddish tint, head yellow. Antennae yellow in basal half, brownish yellow in apical half. Palpi yellow. Legs yellow. Wings hyaline. Pterostigma light brown, yellow in basal 1/3.

MALE. Body length 1.6-1.7 mm; fore wing length 1.4-1.5 mm. Head behind eyes more convex. Transverse diameter of eye almost equal to temple length. Malar space height 0.5 times longitudinal diameter of eye. Width of face 1.1-1.2 times longitudinal diameter of eye, 1.45-1.6 times height of face. Clypeus ventrally with more long median lobe. Antennae slender, filiform. First flagellar segment 3-3.3 times as long as its apical width, as long as second segment. Penultimate segment 1.5-1.7 times as long as wide. In hind wing, basal vein 0.4-0.7 times second abscissa of mediocubital vein. Hind femur 4 times as long as wide. Otherwise similar to female.

DISCUSSION. The new species is similar to *L. (E.) pallidistigma* Curtis, 1833 and differs in lacking the medial vein, in having the mesoscutum setose in posteromedian half and body brownish yellow or yellow.

***Leiophron (Leiophron) pardus* Belokobylskij, sp. n.**

Figs 150-155

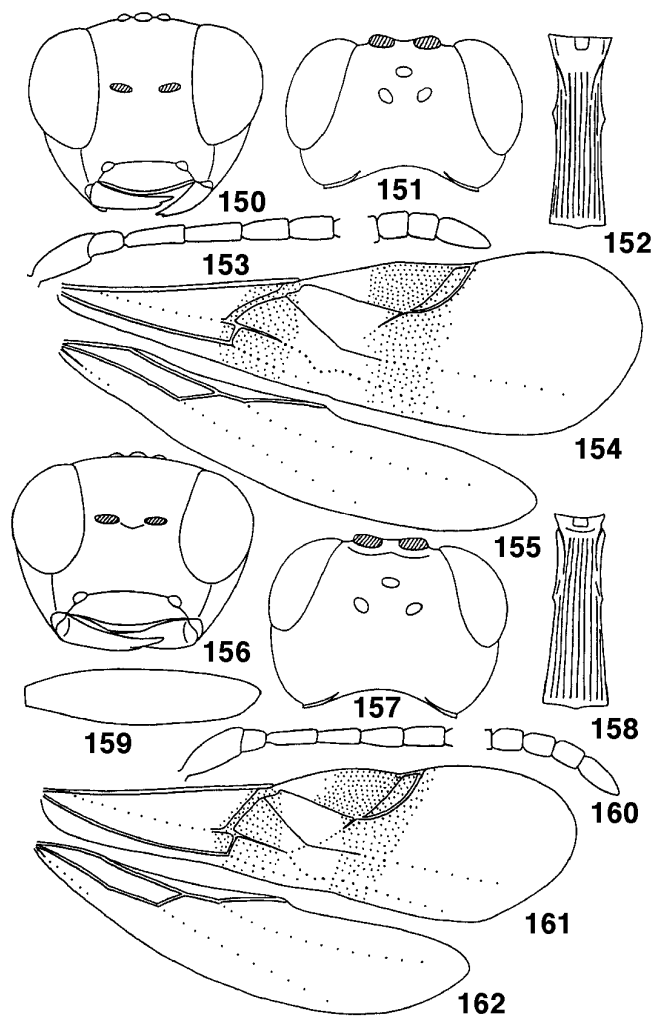
MATERIAL. Holotype: ♀, Russia: Primorskii krai, 15 km SSW Nezino, forest, 16-18.VII 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.3 mm; fore wing length 1.9 mm. Width of head 1.8 times its median length, 1.4 times width of mesoscutum. Temples behind eyes distinctly roundly narrowed; transverse diameter of eye 3 times length of temple (almost 3 times on straight line). Ocelli in triangle with base 1.2 times its lateral sides; *POL* 1.3 times *Od*, 0.8 times *OOL*. Eye very shortly and sparsely setose, 1.4 times as high as broad. Malar suture distinct. Malar space height almost equal to basal width of mandible, 0.2 times height of eye. Face convex, its width 1.25 times median height, 0.6 times height of eye. Distance between tentorial pits 2.7 times distance from pit to eye. Clypeus ventrally without median lobe, with flange only. Clypeal width 2.7 times its median height, almost equal to width of face. Head distinctly and roundly narrowed below eyes. Occipital carina fused with hypostomal carina ventrally near mandible. Hypostomal flange small, but distinct. Second segment of maxillary palpi not widened.

Antenna claviform, 15-segmented. Scape 2.5 times as long as wide. First flagellar segment 3 times as long as its apical width, as long as second segment. Length of penultimate segment 1.1 times its width, 0.5 times length of apical segment.

Thorax. Length 1.6 times its maximum height. Notauli present as fine trace on horizontal surface, deep and crenulate on vertical surface. Prescutellar depression long, with median carina, crenulate, 0.45 times as long as scutellum. Scutellum distinctly convex. Subalar depression shallow, narrow, punctulate-rugulose. Sternauli shallow, wide, rugulose-punctate, running almost along all length of lower part of mesopleura. Mesopleura with distinct sculptured oblique furrow from mesopleural pit to sternauli. Postpectal carina present. Metapleural lobe wide, rather long and almost smooth.

Wings. Length of fore wing 3 times its width. Length of pterostigma 2.7 times its maximum width. Radial cell 4.5 times as long as wide. Metacarpus 0.13 times as long as pterostigma, 0.3 times as long as width of pterostigma. Radial vein arising distinctly behind middle of pterostigma near first radiomedial vein. Radial vein with 1 abscissa, which is regularly curved. Unsclerotized or absent second and third abscissae of cubital, first radiomedial in posterior half and recurrent



Figs 150-162. *Leiothorax (Leiothorax) pardus* sp. n. (150-155) and *L. (L.) subapicalis* sp. n. (156-162). 150, 156) head, frontal view; 151, 157) head, dorsal view; 152, 158) first abdominal tergite; 153, 160) basal and apical segments of antenna; 154, 161) fore wing; 155, 162) hind wing; 159) hind femur.

veins. First and second abscissae of medial vein sclerotized, but discolored. Distance from nervulus to basal vein 0.6 times nervulus length. Medial and submedial cells glabrous at most part, with sparse hairs distally only. In hind wing, basal vein 1.6 times as long as third abscissa of costal vein. Nervellus absent.

Legs. Hind femur 4.2 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, 1.3 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs not thickened. Claws simple.

Abdomen. First tergite almost not widened posteriorly, with small spiracular tubercles before middle, without dorsope. Apical width of first tergite 1.4 times its minimum width, length 3.2 times its apical width. Length of second and third tergites combined 2.4 times basal width of second tergite, 1.4 times their maximum width.

Sculpture and pubescence. Head smooth, face very finely punctulate. Mesoscutum smooth. Mesopleura smooth in upper 1/3, rugulose punctulate on most part of lower 2/3. Propodeum coarsely rugulose-reticulate, with short semicircular and punctulate laterobasal areas. Hind coxa smooth, all femora densely granulate-coriaceous, but fore femur - finely sculptured. First abdominal tergite regularly striate. Mesoscutum shortly setose in anterior 1/3.

Colour. Body brownish yellow, head paler, abdomen in apical 1/3 dark reddish brown. Antennae yellow to brownish yellow, apical half reddish brown. Palpi yellow. Legs light brown, hind femur and tibia darker. Wings hyaline, with 2 stripes near basal vein and pterostigma. Pterostigma brown, pale yellow in basal 1/3.

MALE unknown.

DISCUSSION. The new species is similar to *L. (L.) hankaicus* Belokobylskij, 1993 and *L. (L.) ferrugineus* Belokobylskij, 1993 (Belokobylskij, 1993) and differs in having the temple very short, mesoscutum dorsally with trace of notauli and mesopleura widely sculptured in lower half.

***Leiophron (Leiophron) subapicalis* Belokobylskij, sp. n.**

Figs 156-162

MATERIAL. Holotype: ♀, Russia: Primorskii krai, Spassk-Dal'niy, forest, border of forest, 18.VII 1995 (S.B.) [ZISP]. Paratypes: Primorskii krai: 1 ♀, 5 km W Anisimovka, forest, glades, 6-9.VIII 1993 (S.B.); 1 ♀, Spassk-Dal'niy, forest, glades, 3-6.VII 1993 (S.B.); 1 ♂, 20 km SW Putsilovka, Monakino, forest, glades, 24-28.VI 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.4-2.6 mm; fore wing length 1.8-1.9 mm. Width of head 1.5-1.6 times its median length, 1.4 times width of mesoscutum. Temples behind eyes roundly narrowed; transverse diameter of eye 1.35-1.5 times length of temple (1.2-1.4 times at straight line). Ocelli in triangle with base 1.3-1.4 times its lateral sides; *POL* 2.3-2.5 times *Od*, 0.9-1.1 times *OOL*. Eye glabrous, 1.4-1.5 times as high as broad. Malar suture distinct. Malar space height 0.7-0.9 times basal width of mandible, 0.25-0.3 times height of eye. Face convex, its width 1.2-1.3 times median height, 0.6-0.7 times height of eye. Distance between tentorial pits 2.8-3 times distance from pit to eye. Clypeus ventrally with very short and wide median lobe, which is almost straight anteriorly. Width of clypeus 2.8-3 times its median height, 1.25-1.3 times width of face. Head distinctly and roundly narrowed below eyes. Occipital carina fused with hypostomal carina ventrally near mandible. Hypostomal flange very narrow. Second segment of maxillary palpi not widened.

Antenna weakly claviform, 15-segmented. Scape 2-2.3 times as long as wide. First flagellar segment 3 times as long as its apical width, 1.1 times as long as second segment. Length of penultimate segment 1.25-1.4 times its width, 0.55-0.7 times length of apical segment.

Thorax. Length 1.6-1.7 times its maximum height. Notauli shallow, narrow and crenulate on vertical surface, absent on horizontal surface. Prescutellar depression short, with median carina, smooth, 0.25-0.3 times as long as scutellum. Scutellum convex. Subalar depression shallow, wide, finely striate. Sternauli almost absent. Mesopleura without sculptured oblique furrow. Postpectal carina present. Metapleural lobe rather narrow and long, almost smooth.

Wings. Length of fore wing 3.3-3.4 times its width. Length of pterostigma 2.3-2.5 times its maximum width. Radial cell 4.2-4.5 times as long as wide. Metacarpus 0.1-0.15 times as long as pterostigma, 0.25 times as long as width of pterostigma. Radial vein arising behind middle of pterostigma near first radiomedial vein. Radial vein with 1 abscissa, which is regularly curved. Weakly sclerotized first radiomedial in distal part, first and second abscissae of medial veins. Third abscissa of cubital and parallel vein absent. Recurrent vein absent or present as trace. Second abscissa of cubital vein distinctly sclerotized, but usually discolored. Basal vein wide. Nervulus almost interstitial or weakly postfurcal. Medial and submedial cells sparsely setose at most part, almost glabrous basally. In hind wing, basal vein 0.5 times as long as second abscissa of mediocubital vein, 0.6-0.8 times as long as third abscissa of costal vein. Nervellus absent.

Legs. Hind femur 3.8-4.2 times as long as wide. Hind tarsus 1.1 times as long as hind tibia, its second segment 0.4 times as long as first segment, 1.25 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs weakly thickened. Claws simple.

Abdomen. First tergite almost not widened posteriorly, with small spiracular tubercles before middle, with very small dorsope. Apical width of first tergite 1.4 times its minimum width, length 2.8-3.1 times its apical width. Length of second and third tergites combined 2.3-2.6 times basal width of second tergite, about 1.6 times their maximum width.

Sculpture and pubescence. Head smooth, face finely punctulate, frons very finely aciculate at least partly. Mesoscutum smooth. Mesopleura almost entirely finely, but distinctly striate. Propodeum coarsely rugulose-reticulate, with granulation between rugae, with indistinct laterobasal areas. Hind coxa smooth, all femora finely and densely granulate. First abdominal tergite regularly striate. Mesoscutum almost entirely glabrous.

Colour. Body light reddish brown, sometimes propodeum and first abdominal tergite darker, abdomen in apical 1/3 almost black. Antennae light reddish brown, dark in apical 1/3, yellow basally. Palpi yellow. Legs brownish yellow, paler basally. Wings hyaline, with 2 rather wide stripes near basal vein and pterostigma. Pterostigma dark brown, pale yellow in basal 1/3.

MALE. Body length 2.1-2.6 mm; fore wing length 1.6-1.8 mm. Transverse diameter of eye 1.2 times temple length (1.3 times on straight line). Malar space height 0.3 times longitudinal diameter of eye. Mesoscutum with finely sculptured trace of notauli. Medial vein more distinctly sclerotized. Abdomen dark brown in apical half. Otherwise similar to female.

DISCUSSION. The new species is similar to *L. (L.) apicalis* Haliday, 1833 and differs in having the first abdominal tergite distinctly regularly striate, mesopleura more or less distinctly striate and basal flagellar segments shorter.

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

Figs 163-169

MATERIAL. Holotype: ♂, Russia: Primorskii krai, 30 km SE Ussuriysk, nature reserve Ussuriyskiy, forest, 10-11.VI 1993 (S.B.) [ZISP]. Paratypes: Primorskii krai: 1 ♂, Lyalichi, Ilistaya River, forest, 3.VI 1990 (S.B.); 2 ♂, Vladivostok, Okeanskaya, 20.VI 1984 (S.B.) [ZISP].

DESCRIPTION. MALE. Body length 3.0-3.3 mm; fore wing length 2.7-3.0 mm. Width of head 1.7-1.8 times its median length, 1.1-1.2 times width of mesoscutum. Temples behind eyes weakly roundly narrowed in anterior half, distinctly roundly narrowed in posterior half; transverse diameter of eye 1-1.1 times length of temple (almost same length on straight line). Frons concave, with fine median keel. Ocelli in triangle with base 1.4-1.5 times its lateral sides; *POL* almost twice *Od*, 1-1.2 times *OOL*. Eye with sparse and short hairs, 1.3-1.4 times as high as broad. Malar suture distinct. Malar space height 0.7-0.8 times basal width of mandible, about 0.3 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.5-1.6 times its median height, 0.9-1 times height of eye. Distance between tentorial pits 3-3.5 times distance from pit to eye. Width of clypeus 2.2-2.5 times its median height, almost equal to width of face. Head distinctly and weakly roundly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally.

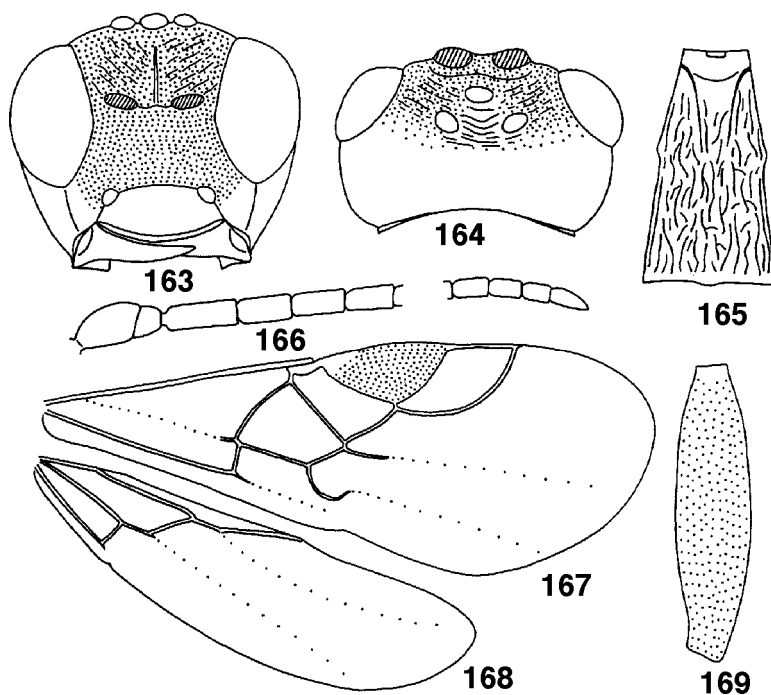
Antenna filiform, 30-31-segmented, 1-1.2 times as long as body. Scape 1.6-1.7 times as long as wide. First flagellar segment 2.5-2.6 times as long as its apical width, 1.2-1.4 times as long as second segment. Length of penultimate segment 1.7-2 times its width, 0.8 times length of apical segment.

Thorax. Length 1.5-1.6 times its maximum height. Notauli deep, narrow, complete, crenulate. Prescutellar depression long, with median carina, sculptured, 0.4-0.5 times as long as scutellum. Scutellum convex, with shallow transverse depression posteriorly. Subalar depression shallow, wide, punctulate-rugulose. Sternauli shallow, wide, oblique, rugulose-crenulate, with shallow and narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured oblique furrow from mesopleural pit to sternauli.

Wings. Length of fore wing 2.4-2.5 times its width. Length of pterostigma 2.1-2.3 times its maximum width. Radial cell shortened, about 2.5 times as long as wide. Metacarpus 0.4-0.5 times as long as pterostigma, almost as long as width of pterostigma. Radial vein arising slightly behind middle of pterostigma, its second abscissa more or less regularly curved. First radial abscissa short. Recurrent vein weakly postfurcal or interstitial, 0.6-0.7 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.2-0.4 times nervulus length. Second abscissa of longitudinal anal vein shortly sclerotized basally. In hind wing, basal vein 1.6-1.9 times as long as second abscissa of mediocubital vein, 1.6-1.7 times as long as third abscissa of costal vein.

Legs. Hind femur 3.8-4 times as long as wide. Hind tarsus 1-1.1 times as long as hind tibia, its second segment 0.4 times as long as first segment, 1.1-1.3 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs not thickened. Claws simple.

Abdomen. First tergite rather narrow basally, widened posteriorly, with small spiracular tubercles near middle, with small dorsope. Apical width of first tergite



Figs 163-169. *Leiophron (Peristenus) antennator* sp. n. 163) head, frontal view; 164) head, dorsal view; 165) first abdominal tergite; 166) basal and apical segments of antenna; 167) fore wing; 168) hind wing; 169) hind femur.

2-2.3 times its minimum width, length 1.7-1.9 times its apical width. Length of second and third tergites combined 2.3-2.5 times basal width of second tergite, 1.4 times their maximum width.

Sculpture and pubescence. Head sparsely and finely punctulate, usually with rugosity near ocelli; frons densely and coarsely punctate, with semicircular striation; face densely coarsely punctulate; clypeus smooth and shining. Median lobe of mesoscutum sparsely and distinctly punctulate, lateral lobes smooth, punctulate in anterior 1/3-2/3. Scutellum smooth, finely sculptured laterally. Mesopleura sparsely and distinctly punctulate at most part. Propodeum coarsely rugulose-reticulate, with short semicircular punctulate laterobasal areas, but areas sometimes indistinct. Hind coxa smooth. First abdominal tergite almost entirely irregularly rugose-reticulate, sometimes with striae laterally. Median lobe of mesoscutum entirely and lateral lobes in basal 1/4 setose. Clypeus only with long hairs marginally, but ventrally more widely setose.

Colour. Body black; clypeus black. Antennae light reddish brown in basal 1/3-1/2, dark in apical 1/2-2/3. Palpi light brown. Legs light reddish brown, hind legs reddish brown or darker at most part. Wings infusate. Pterostigma brown, light brown in basal 1/4-1/5.

FEMALE unknown.

DISCUSSION. The new species is closely similar to *L. (P.) cognatus* sp. n. and differs in having the temple longer, face high, basal flagellar segments thick, apical antennal segments longer, apical segments of fore and middle tarsi slender, first abdominal tergite narrow basally and irregularly rugose-reticulate at most part.

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

Figs 170-176

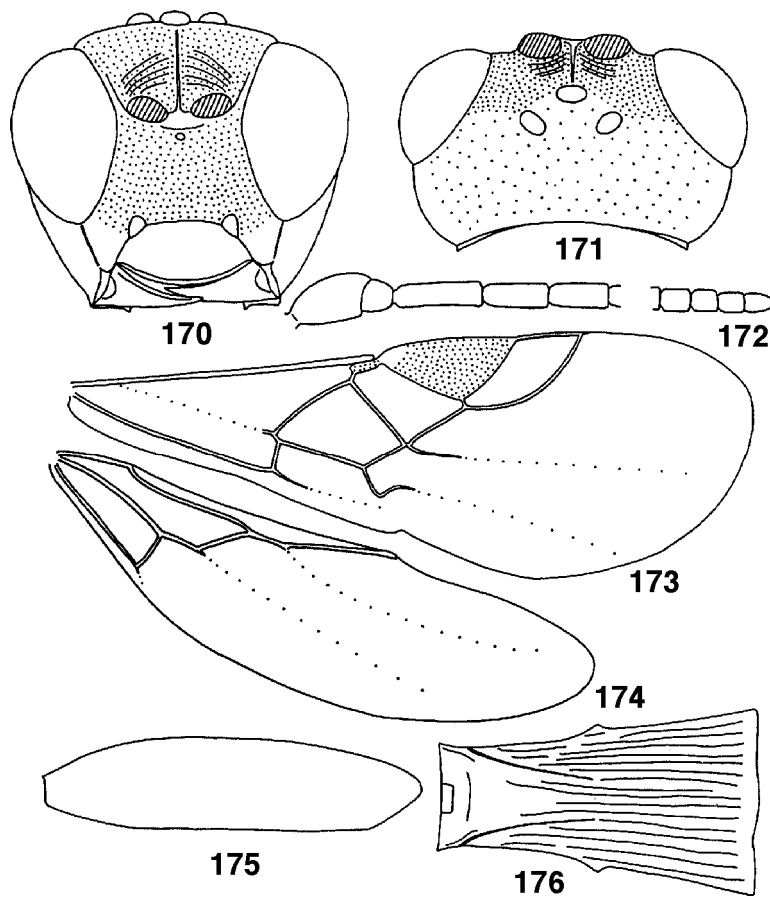
MATERIAL. Holotype: ♀, Russia: Primorskii krai, 30 km SE Ussuriysk, nature reserve Ussuriyskiy, forest, 10-11.VI 1993 (S.B.) [ZISP]. Paratypes: Primorskii krai: 2♀, 2♂, with the same label as holotype, 10-14.VI 1993; 1♀, 50 km SEE Ussuriysk, cretaceous slope, Suvorovka River, 13.VI 1993 (S.B.); 1♀, 3♂, Anisimovka, forest, meadow, 5-7.VI 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 3.7-3.9 mm; fore wing length 3.1-3.4 mm. Width of head 1.7-1.8 times its median length, 1.2-1.3 times width of meso-scutum. Temples behind eyes weakly and roundly narrowed, transverse diameter of eye 1.3-1.5 (1.2-1.5 times on straight line) times length of temple. Frons concave, with distinct median keel. Ocelli in triangle with base 1.5 times its lateral sides; *POL* 2-2.2 times *Od*, 1.1-1.2 times *OOL*. Eye with sparse and short hairs, 1.4-1.5 times as high as broad. Malar suture distinct. Malar space height about 0.7 times basal width of mandible, about 0.2 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.1-1.2 times its median height, 0.6-0.7 times height of eye. Distance between tentorial pits 4-5 times distance from pit to eye. Width of clypeus 2.2-2.3 times its median height, about 1.2 times width of face. Head rather strongly and weakly roundly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally.

Antenna filiform, 29-32-segmented, 0.8-0.9 times as long as body. Scape 1.7-1.8 times as long as wide. First flagellar segment 3-3.3 times as long as its apical width, 1.2-1.25 times as long as second segment. Length of penultimate segment 1.2-1.4 times its width, 0.6-0.7 times length of apical segment.

Thorax. Length 1.4-1.5 times its maximum height. Notauli deep, narrow, complete, crenulate. Prescutellar depression long, with distinct median carina, rugulose-striate, 0.45-0.5 times as long as scutellum. Scutellum convex, with distinct transverse short depression posteriorly. Subalar depression shallow, rather narrow, striate-rugulose or punctulate-rugulose. Sternauli deep, short, rather wide, oblique, crenulate, with very shallow and narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured furrow from mesopleural pit to sternauli.

Wings. Length of fore wing 2.6-2.7 times its width. Length of pterostigma 2.1-2.3 times its maximum width. Radial cell shortened, 2.5-2.6 times as long as wide. Metacarpus about 0.4 times as long as pterostigma, almost as long as width of pterostigma. Radial vein arising near middle of pterostigma, its second abscissa regularly curved. First radial abscissa short. Recurrent vein weakly antefurcal, 0.7-0.8 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.2-0.3 times nervulus length. Second abscissa of longitudinal anal vein sclerotized in basal 1/3-1/5. In hind wing, basal vein 1.3-1.5 times as long as second abscissa of mediocubital vein, 1.6-2.3 times as long as third abscissa of costal vein.



Figs 170-176. *Leiophron (Peristenus) cognatus* sp. n. 170) head, frontal view; 171) head, dorsal view; 172) basal and apical segments of antenna; 173) fore wing; 174) hind wing; 175) hind femur; 176) first abdominal tergite.

Legs. Hind femur 3.8-4.1 times as long as wide. Hind tarsus slightly longer than hind tibia, its second segment 0.4-0.5 times as long as first segment, 1.4-1.7 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs distinctly, but not strongly thickened. Claws almost simple.

Abdomen. First tergite rather wide basally, widened posteriorly, with spiracular tubercles near middle, with small dorsope. Apical width of first tergite 1.9-2.1 times its minimum width, length 1.6-1.8 times its apical width. Length of second and third tergites combined about 2.5 times basal width of second tergite, 1.6-1.7 times their maximum width. Hypopygium large, with numerous sparse hairs.

Sculpture and pubescence. Head sparse punctulate, face very densely and finely punctulate, frons very densely and coarsely punctulate with semicircular rugosity partly; clypeus smooth and shining. Median lobe of mesoscutum densely punctulate, lateral lobes and scutellum finely punctulate, almost smooth. Mesopleura smooth

at most part. Propodeum coarsely reticulate-rugulose entirely, with short semicircular punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite entirely longitudinally striate. Median lobe of mesoscutum entirely and lateral lobes in basal half setose. Clypeus with long and sparse hairs almost entirely.

Colour. Body black; clypeus black. Antennae light reddish brown, paler basally. Palpi yellow. Legs brownish yellow, hind coxa dark reddish brown, hind femur and tibia at most part reddish brown or light reddish brown. Wings faintly infusate. Pterostigma dark brown, light brown in basal 1/4.

MALE. Body length 3.2-3.3 mm; fore wing length 2.9-3.0 mm. Antennae weakly setiform; penultimate segment about twice as long as width. Temple length almost equal to transverse diameter of eye. Recurrent vein of fore wing interstitial or weakly postfurcal. Striae of first abdominal tergite undulate medially sometimes. Otherwise similar to female.

DISCUSSION. The new species is similar to *L. (P.) posjeti* Belokobylskij, 1995 (Belokobylskij, 1995) and differs in having the radial cell shorter, fifth segments of fore and middle tarsi not strongly thickened, vertex distinctly punctulate and hind claw without basal tooth. *L. (P.) cognatus* sp. n. is similar to *L. (P.) procerus* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the temple and face short, vertex distinctly punctulate, mesopleura with additional oblique furrow, metacarpus shorter, hind femur and antenna paler.

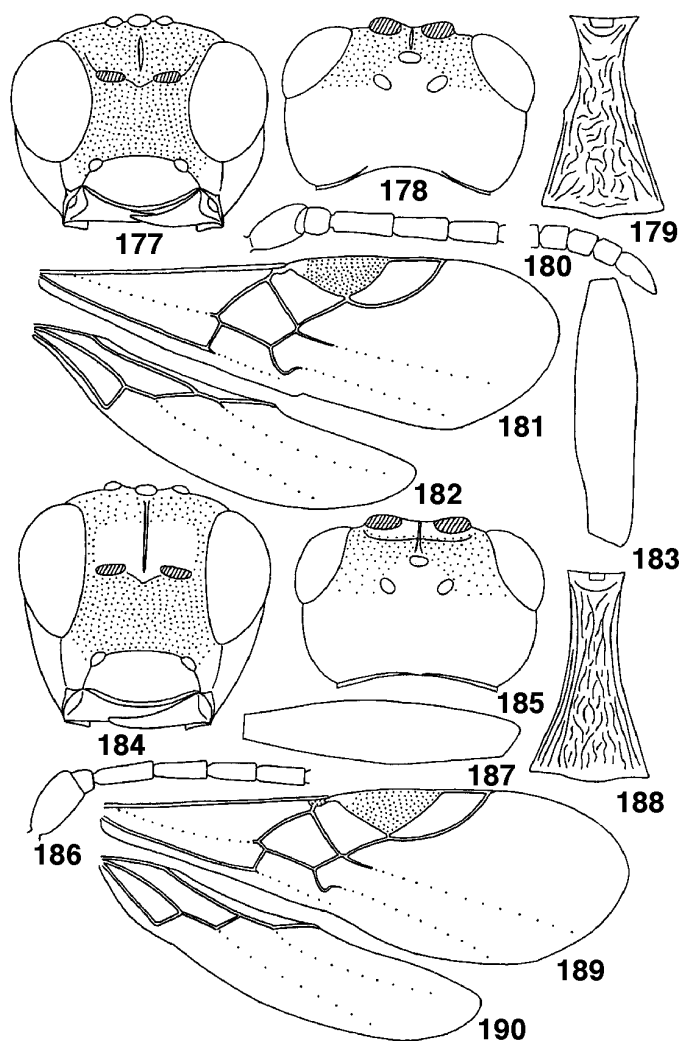
***Leiophron (Peristenus) convexus* Belokobylskij, sp. n.**

Figs 177-183

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 15 km SW Spassk-Dal'niy, Knorring, forest, glades, 22.VII 1991 (S.B.) [ZISP]. Paratypes: Primorskii krai: 2 ♀, 10 km SE Chernigovka, oak forest, pines, 26.VII 1996 (S.B.); 1 ♀, 15 km SE Chernigovka, Gornyi Khutor, forest, glades, 20.VII 1991 (S.B.); 1 ♀, Spassk-Dal'niy, border of forest, glades, 25.VII 1991 (S.B.); 1 ♀, 5 km W Anisimovka, forest, glades, 6-9.VIII.1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 3.2-3.8 mm; fore wing length 2.6-3.0 mm. Width of head 1.7-1.8 times its median length, 1.3-1.4 times width of mesoscutum. Temples behind eyes weakly roundly narrowed; transverse diameter of eye 1-1.1 times length of temple (about 0.9 times on straight line). Frons weakly concave, with distinct median carina. Ocelli in triangle with base 1.4-1.5 times its lateral sides; *POL* 2-2.2 times *Od*, 0.8-0.9 times *OOL*. Eye with sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height 0.6-0.7 times basal width of mandible, 0.2-0.25 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.2-1.4 times its median height, 0.7-0.8 times height of eye. Distance between tentorial pits 3-3.5 times distance from pit to eye. Width of clypeus 2.3-2.5 times its median height, 1.1-1.25 times width of face. Head distinctly and convexly roundly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally by strong additional rugae.

Antenna filiform, 25-26-segmented, 0.8 times as long as body. Scape 1.7-1.8 times as long as wide. First flagellar segment 3-3.3 times as long as its apical width, 1.1-1.2 times as long as second segment. Length of penultimate segment 1.2-1.3 times its width, 0.5-0.7 times length of apical segment.



Figs 177-190. *Leiophron (Peristenus) convexus* sp. n. (177-183) and *L. (P.) goral* sp. n. (184-190). 177, 184) head, frontal view; 178, 185) head, dorsal view; 179, 188) first abdominal tergite; 180) basal and apical segments of antenna; 181, 189) fore wing; 182, 190) hind wing; 183, 187) hind femur; 186) basal segments of antenna.

Thorax. Length 1.4-1.6 times its maximum height. Notauli deep, rather narrow, complete, crenulate. Prescutellar depression long, with 1-3 high carinae, finely sculptured, 0.4-0.5 times as long as scutellum. Scutellum convex. Subalar depression shallow, wide, punctulate-striate. Sternauli deep, narrow, oblique, crenulate, with shallow and very narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured oblique and narrow furrow from mesopleural pit to sternauli.

Wings. Length of fore wing 2.8-3 times its width. Length of pterostigma 2.4-2.6 times its maximum width. Radial cell 2.6-2.7 times as long as wide. Metacarpus 0.4-0.45 times as long as pterostigma, 1.1-1.2 times as long as width of pterostigma. Radial vein arising behind middle of pterostigma, its second abscissa regularly curved. First radial abscissa short. Recurrent vein weakly postfurcal, 0.5-0.6 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.4 times nervulus length. Second abscissa of longitudinal anal vein shortly sclerotized basally. In hind wing, basal vein 1-1.2 times as long as second abscissa of mediocubital vein, 2-2.3 times as long as third abscissa of costal vein.

Legs. Hind femur 4.1-4.3 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, 1-1.1 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs distinctly thickened. Hind claws with small basal lobe or simple.

Abdomen. First tergite rather wide basally, widened posteriorly, with very small spiracular tubercles near middle, dorsope indistinct. Apical width of first tergite 2.4-2.8 times its minimum width, length 1.5-1.6 times its apical width. Length of second and third tergites combined 2.4-2.5 times basal width of second tergite, 1.3-1.4 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons and face densely and rather finely punctulate; clypeus very sparsely and finely punctulate, almost smooth. Median lobe of mesoscutum densely and distinctly punctulate, lateral lobes smooth in posterior 1/2-1/4, punctulate in anterior 2/3-3/4. Scutellum smooth. Mesopleura very sparsely punctulate, almost smooth. Propodeum coarsely and densely rugulose-reticulate, with short semicircular and finely punctulate latero-basal areas. Hind coxa smooth. First abdominal tergite coarsely rugose, with several striae laterally. Median lobe of mesoscutum entirely and lateral lobes in anterior 1/3 setose. Clypeus with sparse and long hairs marginally.

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

MALE unknown.

DISCUSSION. The new species is similar to *L. (P.) gamayun* Belokobylskij, 1995 (Belokobylskij, 1995) and differs in having the less number of antennal segments, frons finely punctulate, first abdominal tergite mostly rugose, antenna and legs darker and hind coxa pale.

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

Figs 184-190

MATERIAL. Holotype: ♀, Russia: Primorskii krai, 10 km SW Sokol'chi, nature reserve Lazovskiy, forest, glades, 22-24.VII 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.9 mm; fore wing length 2.3 mm. Width of head 1.7 times its median length, 1.3 times width of mesoscutum. Temples behind eyes roundly narrowed; transverse diameter of eye almost equal to length of temple (1.1 times on straight line). Frons almost flat, with distinct median keel. Ocelli in triangle with base 1.45 times its lateral sides; *POL* 2.5 times *Od*, 0.9 times *OOL*. Eye with very sparse and short hairs, 1.5 times as high as broad. Malar suture

distinct. Malar space height equal to basal width of mandible, 0.4 times height of eye. Face weakly convex and with small median elongate tubercle dorsally; width of face 1.4 times its median height, 0.9 times height of eye. Distance between tentorial pits twice distance from pit to eye. Width of clypeus almost twice its median height, 0.9 times width of face. Head distinctly and weakly roundly narrowed below eyes. Occipital carina very shortly interrupted dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna filiform, more than 19-segmented (apical segments broken). Scape 1.7 times as long as wide. First flagellar segment 3 times as long as its apical width, 1.1 times as long as second segment. Length of subapical segments 1.25 times their width.

Thorax. Length 1.6 times its maximum height. Notauli deep, rather wide, complete, crenulate. Prescutellar depression short, with median and 2 lateral carinae, almost smooth, 0.4 times as long as scutellum. Scutellum convex. Subalar depression shallow, narrow, crenulate. Sternauli deep, narrow, strongly oblique, short, crenulate, without furrow from posterior part of sternauli to hind coxa. Mesopleura with distinct finely sculptured oblique furrow from mesopleural pit to sternauli.

Wings. Length of fore wing 2.9 times its width. Length of pterostigma 2.4 times its maximum width. Radial cell 3 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 0.9 times as long as width of pterostigma. Radial vein arising from middle of pterostigma, its second abscissa regularly curved. First radial abscissa very 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 0.6 times as long as second abscissa of mediocubital vein, 0.6 times as long as third abscissa of costal vein.

Legs. Hind femur 4.5 times as long as wide. Hind tarsus 0.9 times as long as hind tibia, its second segment 0.5 times as long as first segment, 1.2 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, without distinct spiracular tubercles, with small dorsope. Apical width of first tergite 2.6 times its minimum width, length 1.7 times its apical width. Length of second and third tergites combined 2.3 times basal width of second tergite, 1.5 times their maximum width.

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

Colour. Body black, head dark reddish brown. Antennae yellowish brown in basal 1/4, darkened toward apex, dark reddish brown apically. Palpi yellow. Legs light brown, hind tibia and all tarsi faintly darkened. Wings almost hyaline. Pterostigma dark brown, yellow in basal 1/5.

MALE unknown.

DISCUSSION. The new species is closely similar to Chinese *L. (P.) nitidoides* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the first flagellar segment shorter and thicker, temple longer, frontal carina high, sternaui short, metacarpus short and first abdominal tergite widely rugulose medially.

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

Figs 191-197

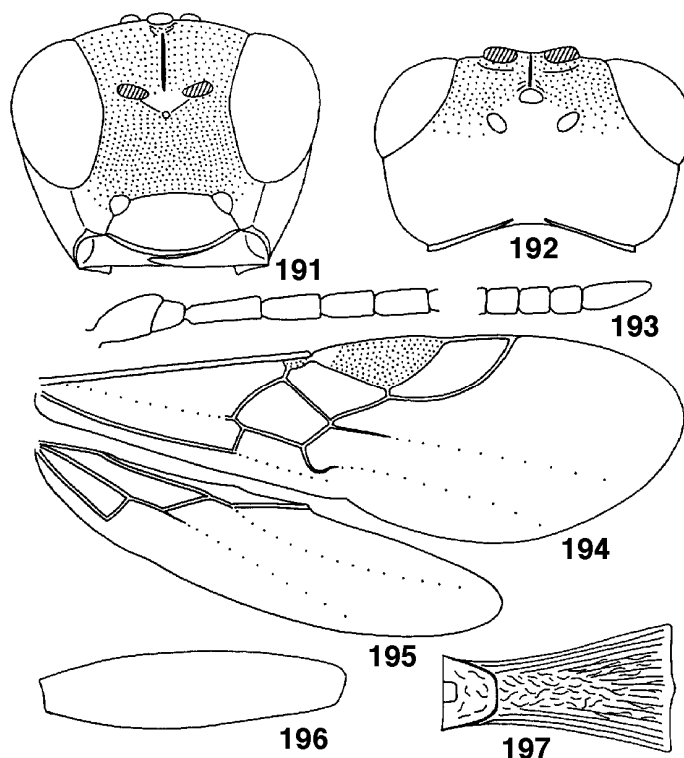
MATERIAL. Holotype: ♀, Russia: Primorskii krai, 30 km E Spassk-Dal'niy, forest, glades, 26.VI 1985 (S.B.) [ZISP]. Paratypes: Primorskii krai: 1 ♂ with same label as holotype; 1 ♀, 20 km NW Partizansk, Brovnichi, forest, 22.VI 1990 (S.B.); 1 ♀, 15 km S Partizansk, Novitskoe, forest, 20.VI 1990 (S.B.); 1 ♂, Spassk-Dal'niy, forest, 30.VI 1985 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.9-3.1 mm; fore wing length 2.3-2.5 mm. Width of head 1.6-1.7 times its median length, 1.4 times width of mesoscutum. Temples behind eyes roundly narrowed; transverse diameter of eye 1.1-1.2 times length of temple (1-1.1 times on straight line). Frons weakly concave, with rather fine median carina. Ocelli in triangle with base 1.4-1.5 times its lateral sides; *POL* about twice *Od*, 0.9-1 times *OOL*. Eye with very sparse and short hairs, 1.4-1.5 times as high as broad. Malar suture distinct. Malar space height 0.7-0.8 times basal width of mandible, 0.25-0.3 times height of eye. Face weakly convex and with small median elongate tubercle dorsally; width of face 1.2-1.3 times its median height, 0.7 times height of eye. Distance between tentorial pits about 3.8-4 times distance from pit to eye. Width of clypeus 2.3-2.5 times its median height, 1.1 times width of face. Head distinctly roundly narrowed below eyes. Occipital carina shortly interrupted dorsally, sometimes carina complete, but fine dorsally; fused with hypostomal carina ventrally by additional rugae.

Antenna filiform, 23-segmented, 0.6 times as long as body. Scape 1.8 times as long as wide. First flagellar segment 2.6-3 times as long as its apical width, 1.15-1.2 times as long as second segment. Length of penultimate segment 1.25 times its width, 0.6-0.7 times length of apical segment.

Thorax. Length 1.45-1.5 times its maximum height. Notauli deep, rather narrow, complete, crenulate. Prescutellar depression long, with median carina, finely sculptured, 0.3-0.35 times as long as scutellum. Scutellum convex. Subalar depression shallow, wide, rugulose-striate. Sternauli rather deep, narrow, oblique, crenulate, with shallow and narrow crenulate furrow from posterior part of sternaui to hind coxa. Mesopleura with finely sculptured oblique furrow from mesopleural pit to sternaui.

Wings. Length of fore wing 2.9-3 times its width. Length of pterostigma 2.6-2.7 times its maximum width. Radial cell 2.5-2.7 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 1.1-1.2 times as long as width of pterostigma. Radial vein arising from middle of pterostigma, its second abscissa more or less regularly curved. First radial abscissa short. Recurrent vein weakly postfurcal, 0.6-0.7 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.4-0.5 times nervulus length. Second abscissa of longitudinal anal vein unsclerotized basally. In hind wing, basal vein 1-1.1 times as long as second abscissa of mediocubital vein, 1.7-2 times as long as third abscissa of costal vein.



Figs 191-197. *Leiophron (Peristenus) fuscotibialis* sp. n. 191) head, frontal view; 192) head, dorsal view; 193) basal and apical segments of antenna; 194) fore wing; 195) hind wing; 196) hind femur; 197) first abdominal tergite.

Legs. Hind femur 4-4.3 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, 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 wide basally, widened posteriorly, with indistinct spiracular tubercles, with very small dorsope. Apical width of first tergite 1.8-2.2 times its minimum width, length 1.5-1.6 times its apical width. Length of second and third tergites combined 2.4-2.5 times basal width of second tergite, 1.4-1.6 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons and face more or less densely and rather finely punctulate; clypeus very sparsely punctulate. Median lobe of mesoscutum rather sparsely and distinctly punctulate, lateral lobes smooth in posterior 3/4, punctulate in anterior 1/4. Scutellum smooth. Mesopleura smooth at most part or sparsely punctulate. Propodeum coarsely rugulose-reticulate, with short semicircular almost smooth or finely punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite rugose, with several striae laterally. Median lobe of mesoscutum entirely and lateral lobes in anterior half setose. Clypeus with sparse and long hairs usually marginally, but sometimes wider.

Colour. Body black, clypeus more or less reddish. Antennae light reddish brown or reddish brown, darker in apical 1/4, 3 basal segments light brown or brownish yellow. Palpi yellow. Legs light brown, hind tibia at most part and hind tarsus reddish brown or dark reddish brown. Wings faintly infuscate. Pterostigma dark brown, pale in basal 1/4.

MALE. Body length 2.6-2.8 mm; fore wing length 2.4-2.5 mm. Head behind eyes convexly rounded. Face width 1.5 times its height, equal to width of clypeus. Antennae 24-segmented; penultimate segment about 1.5 times as long as wide. Metacarpus 0.46-0.47 times as long as pterostigma, 1.3 times as long as width of pterostigma. Hind femur darker sometimes. Otherwise similar to female.

DISCUSSION. The new species is similar to Chinese *L. (P.) montanus* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the first flagellar segment shorter and wider, penultimate segment shorter, occipital carina connected with hypostomal one by additional rugae, malar space shorter, metacarpus longer, hind femur wide, hind tibia and tarsus dark.

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

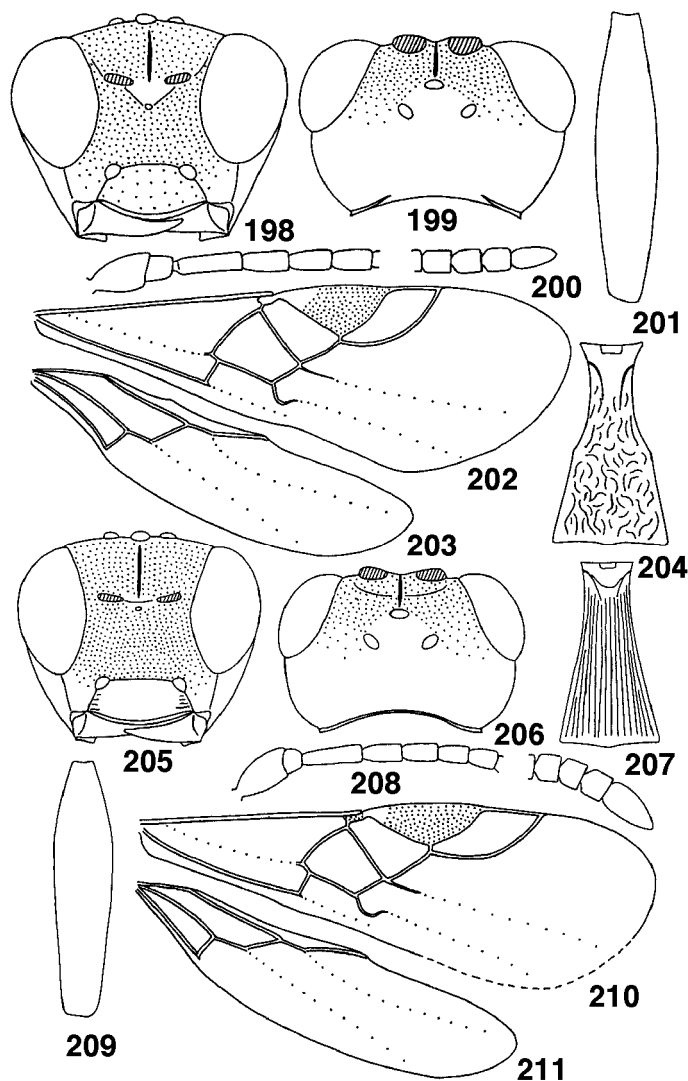
Figs 198-204

MATERIAL. Holotype: ♀, Russia: Kuril Is., Kunashir I., Sernovodsk, mixed forest, 23.VII 1981 (S.B.) [ZISP]. Paratypes: 1 ♂, Kuril Is., Kunashir I., Sernovodsk, mixed forest, 21.VII 1981 (S.B.); 1 ♀, Primorskii krai, 20 km SE Ussuriysk, border of forest, shrubs, 21.VII 1996 (S.B.); 1 ♀, Samarka, Zhuravlevka River, meadow, 29.V 1993 (S.B.) [ZISP].

DESCRIPTION. FEMALE. Body length 3.2-3.5 mm; fore wing length 2.5-2.7 mm. Width of head 1.8-2 times its median length, 1.2-1.3 times width of meso-scutum. Temples behind eyes distinctly roundly narrowed; transverse diameter of eye 1.1-1.2 times length of temple (almost same length on straight line). Frons weakly concave, with high median carina. Ocelli in triangle with base 1.3-1.4 times its lateral sides; *POL* 2-2.7 times *Od*, 0.7-0.9 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 convex and without median tubercle dorsally; width of face 1.1-1.2 times its median height, 0.7 times height of eye. Distance between tentorial pits 2-2.5 times distance from pit to eye. Clypeal width 2.5 times its median height, 1.2 times width of face. Head distinctly and linearly narrowed below eyes. Occipital carina widely interrupted dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna filiform, 22-23-segmented, 0.6-0.7 times as long as body. Scape 1.8-2 times as long as wide. First flagellar segment 3.5-4 times as long as its apical width, 1.4-1.5 times as long as second segment. Length of penultimate segment 1.1-1.2 times its width, 0.5-0.6 times length of apical segment.

Thorax. Length 1.5-1.6 times its maximum height. Notauli shallow, narrow, complete, crenulate. Prescutellar depression rather long, with 3-5 carinae, finely rugulose, 0.4-0.5 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather wide, striate or punctulate rugose. Sternauli more or less shallow, wide, oblique, crenulate or rugulose-crenulate, with shallow (sometimes very shallow) and rather narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured oblique furrow from mesopleural pit to sternauli.



Figs 198-211. *Leiophron* (*Peristenus*) *rugitergum* sp. n. (198-204) and *L. (P.) shikotanicus* sp. n. (205-211). 198, 205) head, frontal view; 199, 206) head, dorsal view; 200, 208) basal and apical segments of antenna; 201, 209) hind femur; 202, 210) fore wing; 203, 211) hind wing; 204, 207) first abdominal tergite.

Wings. Length of fore wing 2.7-3 times its width. Length of pterostigma 2.2-2.3 times its maximum width. Radial cell 2.8 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 0.9-1 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 postfurcal or interstitial, 0.7-0.75 times as long as first radiomedial vein. Distance from nervulus to basal

vein 0.4-0.7 times nervulus length. Second abscissa of longitudinal anal vein very shortly sclerotized basally. In hind wing, basal vein 1-1.2 times as long as second abscissa of mediocubital vein, 1.6-2 times as long as third abscissa of costal vein.

Legs. Hind femur 4.3-4.7 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, 1.1-1.2 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs distinctly thickened. Claws of hind legs with small basal tooth.

Abdomen. First tergite rather narrow basally, widened posteriorly, with small spiracular tubercles near middle, with very small dorsope. Apical width of first tergite 2.4-2.6 times its minimum width, length 1.5-1.8 times its apical width. Length of second and third tergites combined about 2.7 times basal width of second tergite, about 1.5 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons and face densely and finely punctulate; clypeus finely and sparsely punctulate. Median lobe of mesoscutum sparsely and distinctly punctulate, lateral lobes smooth in posterior 1/4, punctulate in anterior 3/4. Scutellum finely and sparsely punctulate. Mesopleura sparsely and rather distinctly punctulate at most part. Propodeum densely rugulose-reticulate, with short semicircular and densely punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite punctulate-reticulate or rugulose-reticulate, sometimes with more or less wide striation laterally. Median lobe of mesoscutum entirely and lateral lobes in basal 3/4 setose. Clypeus almost entirely with rather dense, long and short hairs.

Colour. Body black, clypeus light reddish brown. Antennae light reddish brown, sometimes darker, 2 basal segments yellow. Palpi yellow. Legs brownish yellow. Wings almost hyaline. Pterostigma brown, yellow in basal 1/4.

MALE. Body length 3.3 mm; fore wing length 2.6 times. Antenna 24-segmented, 0.85 times as long as body. Face wider, its width 1.5 times median height, 1.1 times longitudinal diameter of eye. Clypeus 0.9 times as wide as face. Hind femur 4.2 times as long as wide. Hind tibia slightly darkened in apical half. Antenna slightly darker. Otherwise similar to female.

DISCUSSION. The new species is closely similar to *L. (P.) prodigiosus* Chen et Achterberg, 1997 (Chen & Achterberg, 1997) and differs in having the frons finely punctulate, ocellar triangle less obtuse, head behind eyes distinctly and regularly narrowed, clypeus setose, sternauli wide and hind femur slender. The new species differs from *L. (P.) montanus* Chen et Achterberg, 1997 in having the occipital carina fused with hypostomal one by additional rugae, penultimate segment subquadrate, clypeus densely setose, head behind eye distinctly narrowed, mesopleura sparsely punctulate almost entirely and hind femur wide.

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

Figs 205-211

MATERIAL. Holotype: ♀, Russia: Kuril Is., Shikotan I., Malokuril'sk, 20.VIII 1973 (I. Kerzhner) [ZISP].

DESCRIPTION. FEMALE. Body length 3.0 mm; fore wing length 2.6 mm. Width of head 1.6 times its median length, 1.3 times width of mesoscutum. Temples behind eyes strongly roundly narrowed; transverse diameter of eye 1.3 times length of temple (1.3 times on straight line). Frons concave, with distinct median keel. Ocelli in triangle with base 1.3 times its lateral sides; *POL* 2.6 times *Od*, 1.1 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, 0.3 times height of eye. Face weakly convex and with very small median tubercle dorsally; width of face 1.3 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 2.5 times its median height, almost equal to width of face. Head strongly and almost linearly narrowed below eyes. Occipital carina complete dorsally, fused with hypostomal carina ventrally by additional rugae.

Antenna weakly claviform, 19-segmented, 0.5 times as long as body. Scape 1.6 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 penultimate segment equal to its width, 0.4 times length of apical segment.

Thorax. Length 1.6 times its maximum height. Notauli rather shallow, wide, complete, crenulate. Prescutellar depression long, with median carina, finely and sparsely sculptured, 0.4 times as long as scutellum. Scutellum convex. Subalar depression shallow, rather narrow, striate-rugulose. Sternauli rather deep, narrow, strongly oblique, rugulose-crenulate, with very shallow and very narrow finely sculptured furrow from posterior part of sternauli to hind coxa. Mesopleura with very shallow finely sculptured oblique furrow from mesopleural pit to sternauli.

Wings. Length of fore wing about 3 times its width. Length of pterostigma 2.5 times its maximum width. Radial cell 2.6 times as long as wide. Metacarpus 0.5 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, 0.75 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 1.1 times as long as second abscissa of mediocubital vein, 1.5 times as long as third abscissa of costal vein.

Legs. Hind femur 3.6 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, 1.2 times 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 spiracular tubercles, with very small dorsope. Apical width of first tergite twice its minimum width, length 1.8 times its apical width. Length of second and third tergites combined 2.6 times basal width of second tergite, 1.8 times their maximum width.

Sculpture and pubescence. Vertex and temple smooth; frons and face finely and densely punctulate; clypeus smooth at most part. Median lobe of mesoscutum sparsely and finely punctulate, lateral lobes smooth in posterior 1/3, punctulate in anterior 2/3. Scutellum smooth. Mesopleura smooth at most part. Propodeum densely rugulose-reticulate, with short semicircular punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite densely striate, without rugulosity. Median lobe of mesoscutum entirely and lateral lobes in basal 3/4 setose. Clypeus with long hairs marginally only.

Colour. Body black; clypeus black. Antennae dark reddish brown, 2 basal segments light reddish brown. Palpi yellow. Fore legs brownish yellow, middle and hind legs reddish brown or light reddish brown, tarsi paler. Wings very faintly infusate. Pterostigma brown, pale basally.

MALE unknown.

DISCUSSION. The new species is closely similar to *L. (P.) montanus* Chen et Achterberg, 1997 and differs in having the antennae shorter and 19-segmented, penultimate antennal segment subquadrate, first flagellar segment shorter, occipital carina connected with hypostomal one by additional rugae, temple shorter, metacarpus longer, hind femur thick, middle and hind legs dark.

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

Figs 212-218

MATERIAL. Holotype: ♀, Russia: Buryatia, Khasura, 7 km S Znamensk, 30.VI 1971 (D.K.) [ZISP]. Paratypes: Russia: 2 ♀, Leningradskaya oblast', Roschino, mixed forest, 15.VI.1991 (S.B.); 1 ♀, Buryatia, Khamney, middle stream of Dzhida River, 28.VI 1971 (D.K.); 1 ♀, Primorskii krai, Anisimovka, forest, meadow, 5-7.VI 1993 (S.B.); 2 ♀, Sakhalin, Tymovskoe, mixed forest, 2-3.VII 1981 (S.B.); 1 ♀, Sakhalin, Novoalexandrovsk, 3.VII 1973 (D.K.) [ZISP].

DESCRIPTION. FEMALE. Body length 2.8-3.1 mm; fore wing length 2.4-2.7 mm. Width of head 1.6-1.7 times its median length, 1.3-1.4 times width of mesoscutum. Temples behind eyes distinctly roundly narrowed; transverse diameter of eye 1.2-1.4 times length of temple (1.3 times on straight line). Frons weakly concave, with fine median carina. Ocelli in triangle with base 1.3-1.4 times its lateral sides; *POL* 2.2-2.6 times *Od*, 1.1-1.2 times *OOL*. Eye with very sparse and short hairs, 1.4 times as high as broad. Malar suture distinct. Malar space height 0.8-1 times basal width of mandible, 0.3 times height of eye. Face weakly convex and with small median tubercle dorsally; width of face 1.2-1.3 times its median height, 0.7 times height of eye. Distance between tentorial pits about 2.5 times distance from pit to eye. Width of clypeus 2-2.2 times its median height, almost equal to width of face. Head strongly and linearly narrowed below eyes. Occipital carina dorsally complete or shortly interrupted, fused with hypostomal carina ventrally.

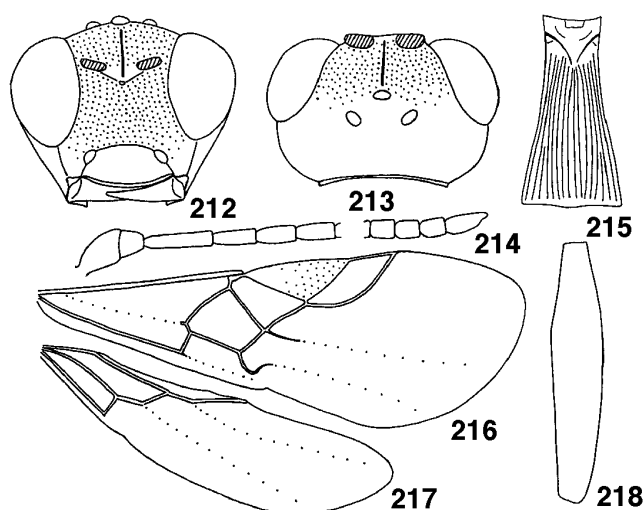
Antenna filiform, 21-23-segmented, 0.6-0.7 times as long as body. Scape 1.7-1.8 times as long as wide. First flagellar segment 3.7-4.2 times as long as its apical width, 1.4-1.5 times as long as second segment. Length of penultimate segment 1.1-1.5 times its width, 0.5-0.6 times length of apical segment.

Thorax. Length 1.5-1.6 times its maximum height. Notauli deep, rather narrow, complete, crenulate. Prescutellar depression long, with median carina, finely sculptured or smooth, about 0.5 times as long as scutellum. Scutellum convex. Subalar depression rather deep, wide, punctulate-rugulose. Sternauli rather shallow, wide, oblique, rugulose-crenulate, with shallow and narrow crenulate furrow from posterior part of sternauli to hind coxa. Mesopleura with finely sculptured oblique and very shallow furrow from mesopleural pit to sternauli, sometimes this furrow indistinct.

Wings. Length of fore wing 2.7-3 times its width. Length of pterostigma 2.5-2.6 times its maximum width. Radial cell 2.7-2.8 times as long as wide. Metacarpus 0.4 times as long as pterostigma, 1-1.2 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 or postfurcal, about 0.8 times as long as first radiomedial vein. Distance from nervulus to basal vein 0.3-0.5 times nervulus length. Second abscissa of longitudinal anal vein shortly sclerotized basally. In hind wing, basal vein 0.8-1 times as long as second abscissa of mediocubital vein, 1-1.4 times as long as third abscissa of costal vein.

Legs. Hind femur 4.7-5.2 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, 1.2 times as long as fifth segment (without pretarsus). Fifth segment of fore and of middle legs weakly thickened. Claws simple.

Abdomen. First tergite rather wide basally, widened posteriorly, with very small spiracular tubercles near middle, with small dorsope. Apical width of first tergite 1.9-2 times its minimum width, length 1.8 times its apical width. Length of second and third tergites combined 2.7-3 times basal width of second tergite, 1.6-1.8 times their maximum width.



Figs 212-218. *Leiophron (Peristenus) subfacialis* sp. n. 212) head, frontal view; 213) head, dorsal view; 214) basal and apical segments of antenna; 215) first abdominal tergite; 216) fore wing; 217) hind wing; 218) hind femur.

Sculpture and pubescence. Vertex and temple smooth with fine punctulation partly; frons more or less densely and rather finely punctulate; face finely and densely punctulate; clypeus smooth. Median lobe of mesoscutum rather densely and distinctly punctulate, lateral lobes smooth in posterior half, punctulate in anterior half. Scutellum smooth. Mesopleura sparsely punctulate with wide smooth area, but sometimes densely punctulate partly. Propodeum coarsely rugulose-reticulate, with short semicircular and finely punctulate laterobasal areas. Hind coxa smooth. First abdominal tergite densely and regularly striate. Median and lateral lobes of mesoscutum almost entirely setose. Clypeus almost glabrous medially, with long hairs marginally.

Colour. Body black, clypeus light reddish brown. Antennae brownish yellow, darker apically, yellow basally. Palpi pale yellow. Legs yellow. Wings almost hyaline. Pterostigma yellow or light brown, darkened toward apex, pale basally.

MALE unknown.

DISCUSSION. The new species is similar to *L. (P.) facialis* (Thomson, 1891) and differs having in the antenna not thickened apically, apical segments elongate, first flagellar segment longer, metacarpus longer and hind legs yellow. The new species differs from Chinese *L. (P.) nitidoides* Chen et Achterberg, 1997 in having the mesopleura sparsely punctulate, pterostigma yellow and darkened apically, head strongly and linearly narrowed below eyes, occipital carina connected with hypostomal one, face black, hind tibia and tarsus yellow.

(To be continued)

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