

New Siberian species of erigonine spiders

(Arachnida, Aranei, Linyphiidae)

By K. Y. Eskov

Abstract

Twelve new Siberian linyphiid species have been described: *Glyphesis asiaticus* spec. nov., *Eboria beringiana* spec. nov., *Scotinotylus millidgei* spec. nov., *Minicia exarmata* spec. nov., *Lasiargus laricetorum* spec. nov., *Latithorax arcticus* spec. nov., *Erigone hypoarctica* spec. nov., *Silometopus sibiricus* spec. nov., *Panamomops transbaikalicus* spec. nov., *Tapinocyba kolymensis* spec. nov., *Ceratinopsis orientalis* spec. nov., *Gonatium pacificum* spec. nov. Besides, *Peleopsis dorniana* Heimer, 1987, just described from Mongolia and representing a species new to the USSR fauna, has been redescribed upon new material.

The present paper continues my studies on the Siberian linyphiid spider fauna, this time dealing with a miscellanea of different erigonine (sensu MILLIDGE 1980) genera involved.

The material, forming the base of the present contribution has been shared between the collections of the Zoological Museum of the Moscow State University (ZMMU); Zoological Institute of the USSR Academy of Sciences, Leningrad (ZIL); Zoologische Staatssammlung, München (ZSM); and Senckenberg Museum, Frankfurt a. M. (SMF).

I wish particularly to acknowledge the help of Dr. S. Golovatch, Moscow, who kindly checked the English of the final manuscript. Besides, I am most grateful to Dr. N. Gromyko (Sikhote-Alin State Reserve, Maritime Province), Dr. V. Bulavintsev, Dr. Y. Chernov, O. Khruleva, I. Obushenkov, A. Ryvkin, Dr. I. Sukatcheva, Dr. A. Tikhomirova, E. Veselova, Dr. V. Zherikhin, Dr. G. Kurcheva, Dr. B. Sheftel (all – Moscow), Dr. K. Gorodkov (Leningrad), S. Bukhalo, Dr. B. Chevrizov, I. Grishkan, Y. Marusik (all from Magadan) for loaning me the material they collected. All measurements are given in mm.

Glyphesis asiaticus spec. nov.

(Figs 1–4)

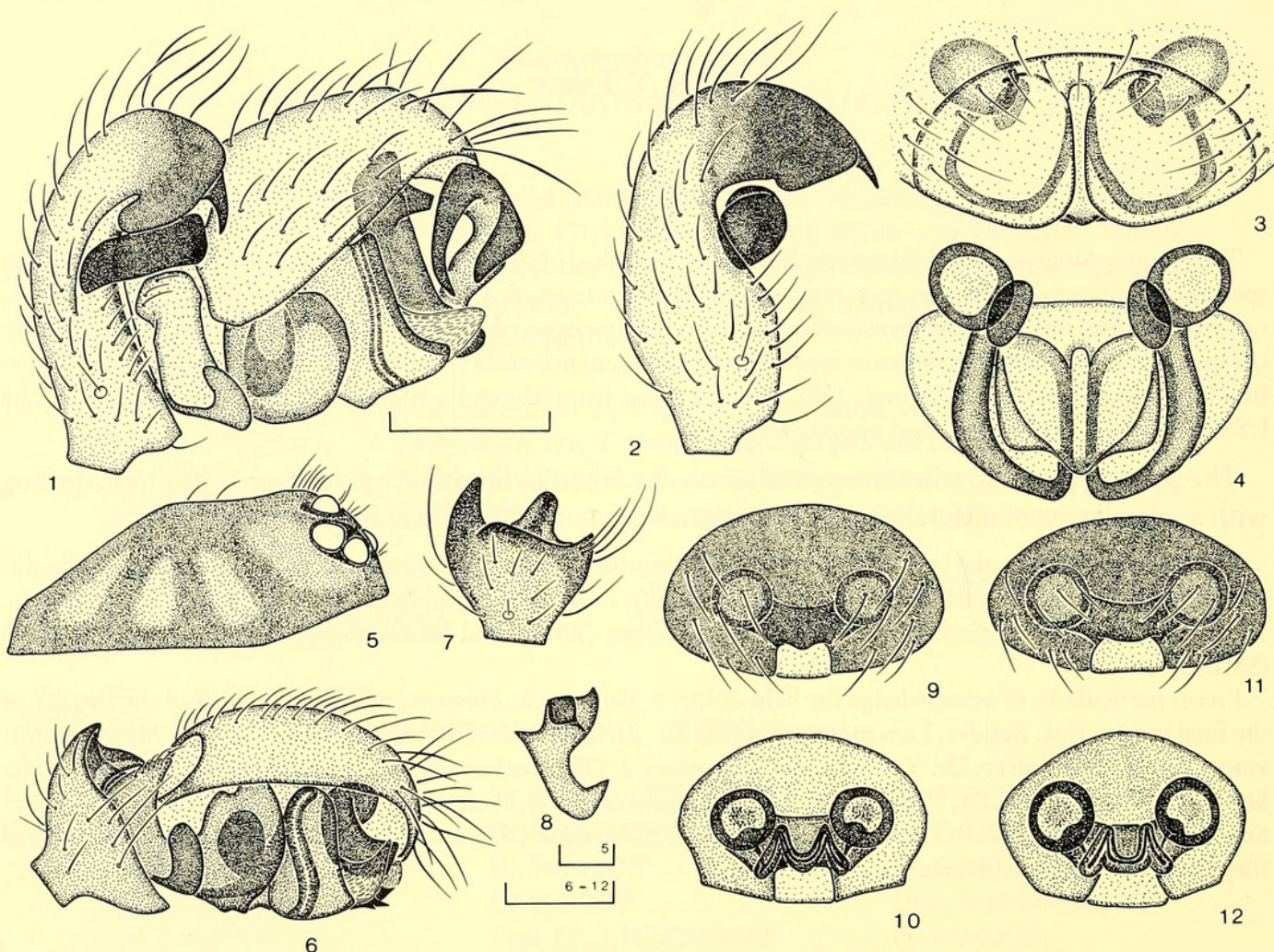
Holotype. ♂ (ZMMU) – USSR, Siberia, Evenk Autonomous Region, Taimura River, mouth of Chambe River, boggy taiga of *Larix dahurica* with *Betula nana* and *Andromeda palustre*, 19.–20. VIII. 1982 (leg. K. Eskov).

Paratypes. 6 ♀ (ZMMU), 2 ♀ (ZSM, EK-Nr. 972), 1 ♀ (SMF) – together with holotype; 1 ♂ (ZMMU) – Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, boggy taiga of *Larix dahurica* with *Betula middendorfi*, 29. VIII. 1985 (leg. Y. Marusik); 2 ♂, 2 ♀ (ZMMU) – Far East, Maritime Prov., 35 km SE of Chuguyevka, Pravaya Sokolovka River (basin of Ussuri River), mountain forest of *Picea*, 20. VIII.–10. IX. 1974 (leg. G. Kurcheva); 1 ♀ (ZMMU) – same locality, valley forest of *Ulmus*, 20. VIII.–10. IX. 1974 (leg. G. Kurcheva).

Description. Total length of male/female 1.30–1.33/1.28–1.38. Carapace dark-yellow; its length/width 0.58–0.60/0.48–0.50 in male, 0.55–0.60/0.43–0.45 in female. Male carapace with declivously elevated cephalic part provided with postocular pits, and very slightly projected clypeus. Legs yellow, length of joints of legs I/IV 0.30/0.35 + 0.13/0.13 + 0.25/0.28 + 0.20/0.23 + 0.20/0.18 in male, 0.35/0.38 + 0.13/0.13 + 0.25/0.30 + 0.20/0.23 + 0.20/0.18 in female; tibial spines 2-2-1-1, short (1/2d of joint); Tm I – 0.50, Tm IV absent. Chelicerae yellow, with four promarginal teeth. Abdomen pale grey, almost spherical. Male palp and epigyne as in Figs 1–4.

Diagnosis. *G. asiaticus* spec. nov. is clearly distinguishable from all the known species of *Clype-sis* by the almost nonmodified male carapace. By the shape of both male and female genitalia, this species seems particularly similar to *G. cottonae* (La Touche, 1946), though it is distinguishable from the latter by the presence of a sharp apophysis on the palpal tibia and by a deeper medial notch of the epigyne (cp. WIEHLE 1960).

Distribution. Middle-Siberian Table-land, southern point of Cherskogo Mt. Ridge (taiga belt) and southern Sikhote-Alin Mts.



Figs 1–12. *Glyphesis asiaticus* spec. nov. 1) male palp; 2) male palpal tibia, dorsal view; 3) epigyne; 4) vulva. — *Eboria beringiana* spec. nov. 5) male carapace; 6) male palp; 7) male palpal tibia, dorsal view; 8) embolic division; 9) epigyne; 10) vulva. — *Eboria simplex* (Kulczyński 1908). 11) epigyne; 12) vulva. Scale 0.1 mm.

***Eboria beringiana* spec. nov.**

(Figs 5–10)

Holotype. ♂ (ZMMU) — USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, alpine belt of Bolshoy Annachag Mt. Ridge, 1350 m, Salix bushes with green mosses at the bank of a stream, 15. VIII. 1985 (leg. Y. Marusik).

Paratypes. 6 ♂, 9 ♀ (ZMMU) — together with holotype; 6 ♂, 10 ♀, (ZSM, EK-Nr. 974) — same locality, alpine belt, 1200 m, moss hillocks at the sandy bank of a lake, 15. VIII. 1985 (leg. Y. Marusik); 3 ♂, 9 ♀ (ZMMU) — same locality, taiga belt, 500 m, temporary spring, shingle bed of Olen' Spring, hillocks of *Stellaria* sp., 31. VIII. 1985 (leg. Y. Marusik); 12 ♂, 26 ♀ (ZMMU) — same locality, taiga belt, 470 m, tundra-like heath of *Vaccinium uliginosum* and *Betula middendorfi* along Olen' Spring, 1.–30. VIII. 1985 (leg. Y. Marusik); 2 ♂, 2 ♀ (ZMMU) — same biotope, 31. VIII. 1984 (leg. K. Eskov & Y. Marusik); 1 ♀ (ZMMU) — same locality, bog of *Sphagnum* in a depression of moraine, 25. VIII. 1984 (leg. K. Eskov & Y. Marusik); 5 ♂, 5 ♀ (ZSM, EK-Nr. 974), 5 ♂,

5 ♀ (SMF), 7 ♂, 12 ♀ (ZIL) – same locality, VI.–VIII. 1986 (leg. Y. Marusik); 1 ♀ (ZMMU) – Siberia, Khabarovsk Province, Okhotsk District, Gyrbykan River (left tributary of Ulya River), mouth of Skalisty Spring, floodland bushes of *Salix* sp. and *Alnus fruticosa*, 20. VIII. 1986 (leg. I. Sukatcheva); 2 ♂ (ZMMU) – Siberia, Yakut Autonomous Republic, the coast of East Siberian Sea between Yana and Indigirka deltas, Khromskaya Guba Gulf, delta of Lapcha River, 20. VIII. 1983 (leg. V. Bulavintsev); 1 ♂ (ZMMU) – Yakut Autonomous Republic, delta of Yana River, Yakor' Island, 14. VIII. 1985 (leg. V. Bulavintsev).

Description. Total length of male/female 1.63–1.85/1.63–2.05. Carapace yellowish-grey with more dark radial stripes and margin, its length/width 0.68–0.73/0.55–0.58 in male, 0.70–0.78/0.53–0.58 in female. Male carapace as in Fig. 5. Legs greyish-yellow; length of joints of legs I/IV 0.55/0.63 + 0.20/0.20 + 0.40/0.60 + 0.33/0.48 + 0.28/0.35 in male, 0.58/0.65 + 0.20/0.20 + 0.48/0.65 + 0.40/0.50 + 0.30/0.38 in female; tibial spines 2-2-2-1, moderately long (1 d of joint); Tm I – 0.50, Tm IV absent. Chelicerae yellowish-grey, with five promarginal teeth. Abdomen dark grey, elongate-ovoid; the male abdomen provided with yellowish-brown ventro-basal stridulatory fields of honeycomb-like structure. Male palp and epigyne as in Figs. 6–10.

Diagnosis. By the shape of genitalia of both male and female, and by the absence of numerous hairs on the clypeus of the male carapace, *E. beringiana* spec. nov. seems particularly similar to the Siberian species *E. simplex* (Kulczyński, 1908) (= *E. sibirica* Holm, 1973: s. ESKOV 1985), though is distinguishable by the long dorsomedial apophysis of the palpal tibia and large posterior tooth of the embolic division in the male (cp. HOLM 1973), as well as orthogonal (not trapeziform) median plate of the epigyne in the female (cp. KULCZYŃSKI 1908 and Figs. 11–12)*.

Distribution. Tundra zone of Yakutia, southern point of Cherskogo Mt. Ridge (both taiga and alpine belts) and Middle Cisokhotia.

Scotinotylus millidgei spec. nov.

(Figs 13–17)

Holotype. ♂ (ZMMU) – USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, taiga of *Larix dahurica* with *Pinus pumila* thickets, 5. VI. 1985 (leg. Y. Marusik).

Paratypes. 2 ♂, 4 ♀ (ZMMU) – together with holotype; 1 ♂, 2 ♀ (ZSM, EK-Nr. 970) – same locality, taiga of *Larix dahurica* and *Betula* spec., 16. VI. 1985 (leg. Y. Marusik); 1 ♂, 5 ♀ (ZMMU) – same locality, boggy taiga of *Larix dahurica* with *Betula middendorfi*, 3.–24. VIII. 1984 (leg. B. Chevrizov).

Description. Total length of male/female 1.73–1.80/1.78–1.83. Carapace brownish-yellow with light brown sulci, its length/width 0.78–0.80/0.53–0.55 in male, 0.73–0.75/0.53–0.55 in female. male carapace as in Fig. 13. Legs dark yellow; length of joints of legs I/IV 0.55/0.63 + 0.18/0.18 + 0.50/0.53 + 0.35/0.38 + 0.20/0.20 in male, 0.53/0.60 + 0.18/0.18 + 0.43/0.50 + 0.35/0.38 + 0.33/0.33 in female; tibial spines 2-2-2-1, moderately long (1 d of joint); Tm I – 0.42, Tm IV absent. Abdomen pale grey, ovoid; epigastric striae very slight, practically indistinguishable. Male palp and epigyne as in Figs. 14–17.

Diagnosis. By the presence of a distinct cephalic lobe of the male carapace and three robust spines on the male palpal tibia, *S. millidgei* spec. nov. belongs to a homogenous species-group of four North American species: *S. sacer* (Crosby, 1929); *S. sacratus* Millidge, 1981; *S. pallidus* (Emerton, 1882); and *S. alpinus* (Banks, 1896)** (cp. MILLIDGE 1981). By the low cephalic lobe, *S. millidgei* spec. nov. seems

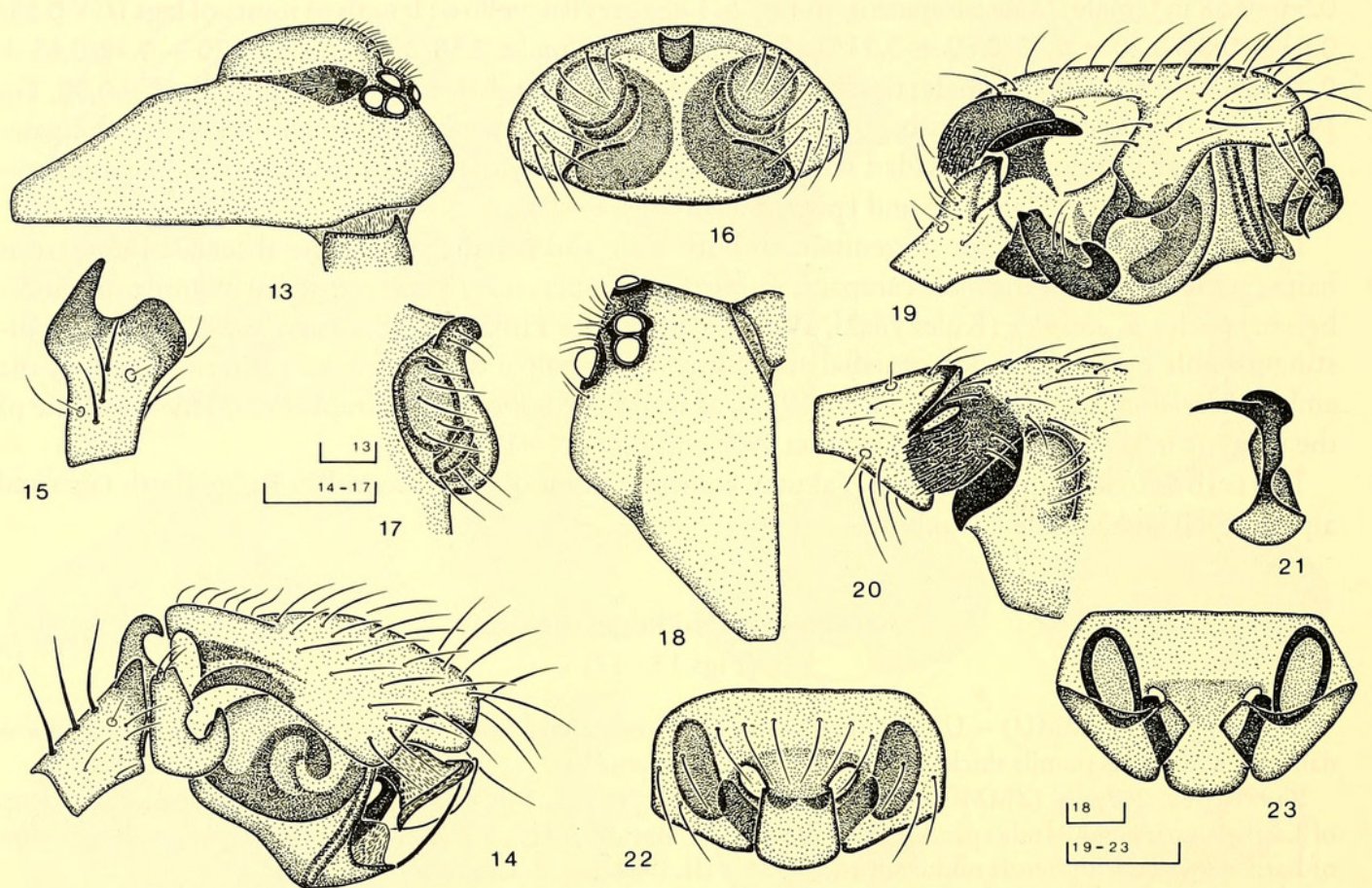
* The male holotype of *Eboria sibirica* is conspecific with the female holotype of *Styloctetor simplex*, while the female paratype of *E. sibirica* is not conspecific with the male holotype and belongs in fact to *Pseudocyba miracula* Tanasevitch, 1984 (ESKOV 1985).

** It seems highly opportune to make the first records of *S. alpinus* in Asia as well: 6 ♂, 21 ♀ (ZMMU) – USSR, Magadan Area, Sibit-Tyellakh, VIII.–IX. 1984 (leg. K. Eskov & Y. Marusik); 1 ♂ (ZMMU) – USSR, Krasnoyarsk Area, middle Yenisei River, Bor, 25. VIII. 1984 (leg. A. Ryvkin); 1 ♂, 2 ♀ (ZMMU) – Mongolia, Khubsugul Aimak, Khangai Mts., Somon-Zhargalant, 6. VIII. 1985 (leg. B. Sheftel).

particularly similar to *S. sacer* and *S. pallidus*, though is distinguishable from the former by the absence of a distinct knob on the ecto-dorsal side of the palpal tibia and a very short "tongue" of the epigyne, and from the latter by the somewhat larger size, better projecting clypeus of the male carapace, absence of clear epigastric striae and rounded internal ducts of the vulva.

Distribution. Southern point of Cherskogo Mt. Ridge (taiga belt).

Derivatio nominis. This species is named after the outstanding british arachnologist, Dr. A. F. Millidge.



Figs 13–23. *Scotinotylus millidgei* spec. nov. 13) male carapace; 14) male palp; 15) male palpal tibia, dorsal view; 16) epigyne, frontal view; 17) epigyne, lateral view. — *Minicia exarmata* spec. nov. 18) male carapace; 19) male palp; 20) male palpal tibia and basal portion of cymbium, dorsal view; 21) embolic division; 22) epigyne; 23) vulva. Scale 0.1 mm.

Minicia exarmata spec. nov. (Figs 18–23)

Holotype. ♂ (ZMMU) — USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, *Alnus fruticosa* bushes with *Carex* sp. and *Polytrichum* sp. in boggy taiga of *Larix dahurica*, 24. IX. 1986 (leg. Y. Marusik).

Paratypes. 1 ♂ (ZSM, EK-Nr. 969) — together with holotype; 1 ♂ (ZMMU) — same biotope, 5. VIII. 1986 (leg. Y. Marusik); 2 ♀ (ZMMU), 1 ♀ (ZSM, EK-Nr. 969), 1 ♀ (SMF) — same locality, thickets of *Pinus pumila*, 11. VI. — 11. VII. 1983, 15. VII. 1985 (leg. Y. Marusik); 1 ♀ (ZMMU) — same locality, small *Carex* bog in a depression of the southern slope of mountain, 24. VIII. 1985 (leg. Y. Marusik); 1 ♀ (ZMMU) — same locality, alpine belt of Bolshoy Annachag Mt. Ridge, 1250 m, mountain lichen tundra, 10. VIII. 1983 (leg. Y. Marusik).

Description. Total length of male/female 1.48–1.50/1.60–1.70. Carapace pale yellow with black spots around eyes, its length/width 0.60–0.65/0.40–0.45 in male and 0.60–0.68/0.45–0.48 in female. Male carapace as in Fig. 18. Legs pale yellow; length of joints of legs I/IV 0.50/0.50 + 0.18/0.18 +

0.45/0.45 + 0.38/0.38 + 0.25/0.28 in male and 0.45/0.45 + 0.18/0.18 + 0.38/0.38 + 0.33/0.35 + 0.23/0.23 in female; dorsal tibial spines 1-1-1-1, moderately long (1 d of joint), ventral rows of robust spines on tibiae I and II absent; Tm I – 0.85, Tm IV present. Abdomen ovoid, dirty-white with a pale grey ring around spinnerets. Male palp and epigyne as in Figs 19–23.

Diagnosis. *M. exarmata* spec. nov. is clearly distinguishable from all the known species of *Minicia* by the absence of ventral rows of robust tibial spines. By the shape of the male carapace and genitalia (both male and female), *M. exarmata* spec. nov. seems similar to the Siberian *M. uralensis* Tana-sevitch, 1983, though is clearly distinguishable by the absence of a transversal depression of the male carapace, trilobated cymbial apophysis (the main branch of which is covered with short, thick, adpressed spines), wide medial septa of the epigyne and pale coloration.

Distribution. Southern point of Cherskogo Mt. Ridge (both alpine and taiga belts).

***Lasiargus laricetorum* spec. nov.**

(Figs 24–28)

Holotype. ♂ (ZMMU) – USSR, Siberia, Khabarovsk Area, Okhotsk District, Gyrbykan River (left tributary of Ulya River), mouth of Skalisty Spring, taiga of *Larix dahurica* with *Betula middendorfi* and *Ledum palustre*, 26.–28. VIII. 1986 (leg. I. Sukatcheva).

Paratypes. 1 ♀ (ZMMU), 1 ♀ (ZSM) – together with holotype; 1 ♂, 1 ♀ (ZMMU), 1 ♂ (ZSM, EK-Nr. 976) – Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, boggy taiga of *Larix dahurica* with *Betula middendorfi*, 26.V.–5.VI.1983 (leg. S. Bukhalo); 1 ♀ (ZMMU) – same biotope, 29.V.1983 (leg. Y. Marusik); 2 ♀ (ZMMU) – Siberia, Krasnoyarsk Area, middle Yenisei River (62°N), source of Malaya Lebedyanka River (left tributary of Yenisei), bank of small lake with *Betula nana*, 19.VII.1986 (leg. B. Sheftel).

Description. Total length of male/female 1.75–1.85/2.00–2.05. Carapace greyish-brown, its length/width 0.73–0.75/0.63–0.65 in male, 0.73–0.75/0.58–0.60 in female. Male carapace as in Fig. 24. Legs dark yellow; length of joints of legs I/IV 0.55/0.70 + 0.23/0.23 + 0.50/0.65 + 0.45/0.58 + 0.28/0.30 in male, 0.55/0.70 + 0.23/0.23 + 0.48/0.63 + 0.45/0.58 + 0.25/0.30 in female; tibial spines 1-1-1-1, long (2 d of joint); Tm I – 0.83, Tm IV present; leg joints covered with numerous long fine hairs. Abdomen grey, ovoid, covered with numerous long bristling hairs. male palp and epigyne as in Figs 25–28.

Diagnosis. *L. laricetorum* spec. nov. is clearly distinguished from *L. hirsutus* (Menge, 1866), the only hitherto known member of the genus *Lasiargus*, by the smaller size, more strongly elevated cephalic portion of the male carapace, very long sharp apophysis of the palpal tibia, extending far forward suprategular apophysis with a wide suprategular membrane, and by the epigyne lacking a distinct scapus (cp. WIEHLE 1960).

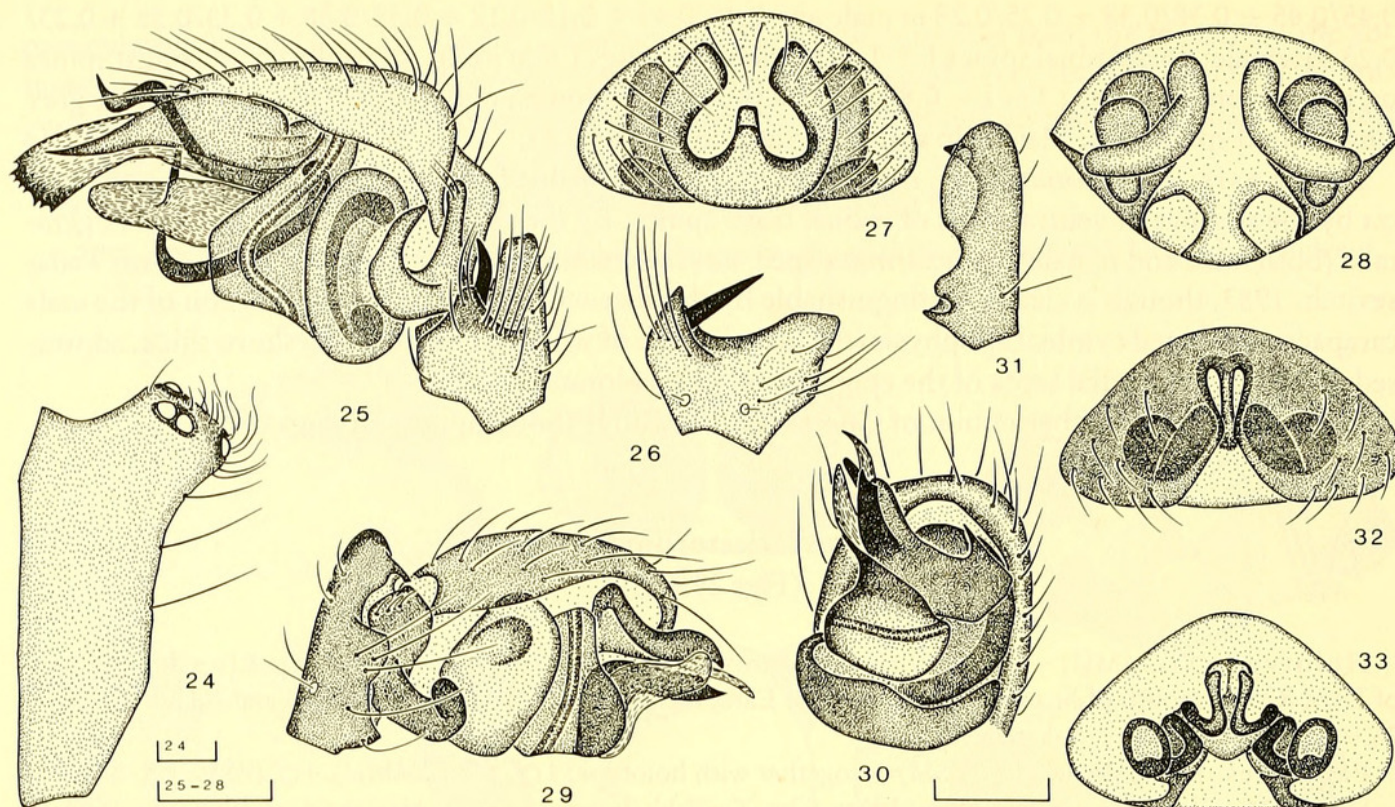
Distribution. Middle Cisokhotia, southern point of Cherskogo Mt. Ridge (taiga belt) and middle Yenisei River.

***Latithorax arcticus* spec. nov.**

(Figs 29–33)

Holotype. ♂ (ZMMU) – USSR, Siberia, Taimyr Autonomous Region, Putorana Plateau, Ayan Lake near the source of Ayan River, alpine belt, 1300 m, dry polygonal moss tundra, 28. VIII. 1983 (leg. K. Eskov).

Paratypes. 8 ♀ (ZMMU) – together with holotype; 3 ♀ (ZMMU), 1 ♂, 3 ♀ (ZSM, EK-Nr. 978) – same locality, alpine belt, 1200 m, moss hillocks on scree, 16. VII. 1983 (leg. K. Eskov); 2 ♀ (ZMMU) – same locality, alpine belt, 1100–1200 m, dry gravel slopes with *Dryas punctata* and *Allectorina* sp., 11.–16. VII. 1983 (leg. K. Eskov); 1 ♂ (ZMMU) – same locality, subalpine belt, 850 m, bog of *Aulacomnium turgidum* and *Carex* sp., 19. VIII. 1983 (leg. K. Eskov); 2 ♀ (ZMMU) – Russia, Nenets Autonomous Region, Vaigatch Island, Bolvansky Nos, 4.–11. VII. 1984 (leg. V. Bulavintsev); 1 ♂, 1 ♀ (SMF), 5 ♀ (ZMMU) – Nenets Autonomous Region, Yugor Penin-



Figs 24–33. *Lasiargus laricetorum* spec. nov. 24) male carapace; 25) male palp; 26) male palpal tibia, dorsal view; 27) epigyne; 28) vulva. — *Latithorax arcticus* spec. nov. 29) male palp, ectal view; 30) male palp, ventral view; 31) male palpal tibia, mesal view; 32) epigyne; 33) vulva. Scale 0.1 mm.

sula, coast of Yugorsky Shar Strait, 5.–27. VI. 1983 (leg. V. Bulavintsev); 1 ♂, 4 ♀ (ZMMU) — Siberia, Taimyr Autonomous Region, Dikson, flowering plant associations on cemetery mounds, 28. VI.–23. VII. 1979 (leg. Y. Chernov & A. Tikhomirova); 2 ♀ (ZMMU) — Taimyr Autonomous Region, 100 km SE of Dikson, Sarydasai River, vegetation of forbs and *Dryas punctata* on the slope of a hill, 24. VII. 1982 (leg. Y. Chernov); 1 ♂ (ZMMU) — Taimyr Autonomous Region, 80 km S of Dikson, Ragozinka River, flood-land forbs meadow, 27. VII. 1983 (leg. Y. Chernov); 2 ♀ (ZMMU) — same locality, polygonal tundra, 17. VII. 1983 (leg. Y. Chernov); 1 ♂, 4 ♀ (ZMMU), 1 ♂, 2 ♀ (SMF) — Taimyr Autonomous Region, western point of Byrranga Mt. Ridge, Kosoturku Lake, moss-lichen tundra, 8. VIII. 1986 (leg. A. B. Babenko); 1 ♂, 1 ♀ (ZMMU) — Yakut Autonomous Republic, Yana Gulf, Yarok Island, 14. VIII. 1985 (leg. V. Bulavintsev); 1 ♂, 2 ♀ (ZMMU) — Yakut Autonomous Republic, coast of East-Siberian Sea between deltas of Yana and Indigirka Rivers, Khromskaya Guba Gulf, mouth of Lapcha River, 20. VIII. 1983 (leg. V. Bulavintsev); 2 ♀ (ZMMU) — Chukotka Autonomous Region, Vrangeli Island, Somnitelnaya Bay, arctic tundra, 7. VIII. 1966 (leg. K. Gorodkov); 5 ♀ (ZMMU) — Vrangeli Island, Neizvestnaya River, vegetation of forbs and *Dryas punctata* on gravel slopes, 3. VII.–29. VIII. 1983 (leg. O. Khruleva).

Description. Total length of male/female 1.95–2.05/1.85–2.05. Carapace yellowish-brown, its length/width 0.75–0.78/0.58–0.60 in male, 0.70–0.73/0.53–0.55 in female. Male carapace simple, without any modifications. Legs brownish-yellow; length of joints I/IV 0.63/0.73 + 0.20/0.20 + 0.50/0.68 + 0.40/0.53 + 0.35/0.40 in male, 0.63/0.73 + 0.20/0.20 + 0.55/0.70 + 0.43/0.55 + 0.33/0.43 in female; tibial spines 2-2-2-1, moderately long (1 d of joint); Tm I – 0.65, Tm IV absent. Chelicerae yellowish-brown, with five promarginal teeth. Abdomen dark grey, almost black, strongly elongated; the male abdomen provided with greyish-brown ventro-basal stridulatory fields of honeycomb-like structure. Male palp and epigyne as in Figs. 29–33.

Diagnosis. By the shape of the male palp, *L. arcticus* spec. nov. seems very closely related to the North American – Greenlandian *L. obtusus* (Emerton, 1882), though is distinguishable by the rounded tip of the palpal tibia and more acute angle between the proximal and distal parts of the embolic division (in lateral view) (cp. HOLM 1967). By the shape of the epigyne possessing a long notch above the

triangular median plate, *L. arcticus* spec. nov. is very clearly distinguishable from *L. obtusus* and seems more similar to the Scandinavian–Siberian *L. latus* Holm, 1943 (cp. PALMGREN 1976).

Distribution. Northern part of the tundra zone of Eurasia (from Yugor Peninsula and Vaigatch Island eastward up to Vrangeli Island) and mountain tundra of the Plateau Putorana alpine belt.

***Erigone hypoarctica* spec. nov.**

(Figs 34–37)

Holotype. ♂ (ZMMU) – USSR, Siberia, Taimyr Autonomous Region, Putorana Plateau, Ayan Lake, mouth of Kapchug River, shingle bank of a stream, 25. V. – 12. VI. 1983 (leg. K. Eskov).

Paratypes. 6♂, 18♀ (ZMMU), 2♂, 4♀ (ZIL), 2♂, 4♀ (ZSM, EK-Nr. 973), 1♂, 2♀ (SMF) – together with holotype; 10♂, 10♀ (ZMMU) – same locality, bushes of *Salix* spp. and *Alnus fruticosa* at the bank of a stream, 28. – 30. V. 1983 (leg. K. Eskov); 3♂, 3♀ (ZMMU) – same locality, vegetation of grasses and *Dryas punctata* in the temporary rocky bed of a spring, 6. VI. 1983 (leg. K. Eskov); 6♂, 4♀ (ZMMU), 2♂, 2♀ (ZSM, EK-Nr. 973) – Siberia, Yamal Autonomous Region, Stchutchya River, mouth of Tanlova-Yakha River, sandy river bank with *Festuca rubra*, 2. – 20. VIII. 1980 (leg. A. Tikhomirova & E. Veselova); 3♂, 4♀ (ZMMU) – Siberia, Magadan Area, 15 km N of Magadan, Snezhnaya Dolina, shingle bank of Duktcha River, 25. VI. 1985, 14. – 19. VIII. 1986 (leg. Y. Marusik); 2♀ (ZMMU) – environs of Magadan, delta of Ola River, edge of valley forest of *Populus* and *Chosenia*, 7. X. 1984 (leg. Y. Marusik); 1♂ (ZMMU) – Magadan Area, Detrin River, 56 km upstream off mouth, Vakhanka Spring, shingle bank of the spring, 13. VIII. 1984 (leg. K. Eskov); 3♂, 1♀ (ZMMU) – same locality, *Salix* bushes on the rocky bank of the spring, 27. VIII. 1985 (leg. Y. Marusik).

Description. Total length of male/female 2.55–2.75/2.63–3.03. Carapace reddish-brown, its length/width 1.30–1.38/1.00–1.05 in male, 1.00–1.20/0.85–0.93 in female; marginal teeth of carapace medium-sized. Legs brownish-yellow; length of joints of legs I/IV 1.08/1.08 + 0.30/0.33 + 0.90/0.95 + 0.80/0.85 + 0.55/0.55 in male, 1.00/1.05 + 0.25/0.28 + 0.88/1.00 + 0.78/0.80 + 0.55/0.55 in female; tibial spines 2-2-2-1; Tm I – 0.48, Tm IV absent. Male chelicerae possessing five promarginal teeth and a lateral row of the four robust teeth. Abdomen grey, ovoid. Male palp and epigyne as in Figs 34–37.

Diagnosis. By the rounded lobe-shaped dorsal apophysis of the male palpal tibia, *E. hypoarctica* spec. nov. seems particularly closely related to the North American–Siberian *E. arctophylacys*, Crosby & Bishop 1928, but differs well from the latter by a larger radical apophysis of the embolic division, acute angle between the palpal patella and its ventral apophysis, and epigyne as a regular hexagon (cp. CROSBY & BISHOP 1928, HOLM 1973).

Distribution. Hypoarctic zone of Siberia, from southern Yamal eastward up to Magadan.

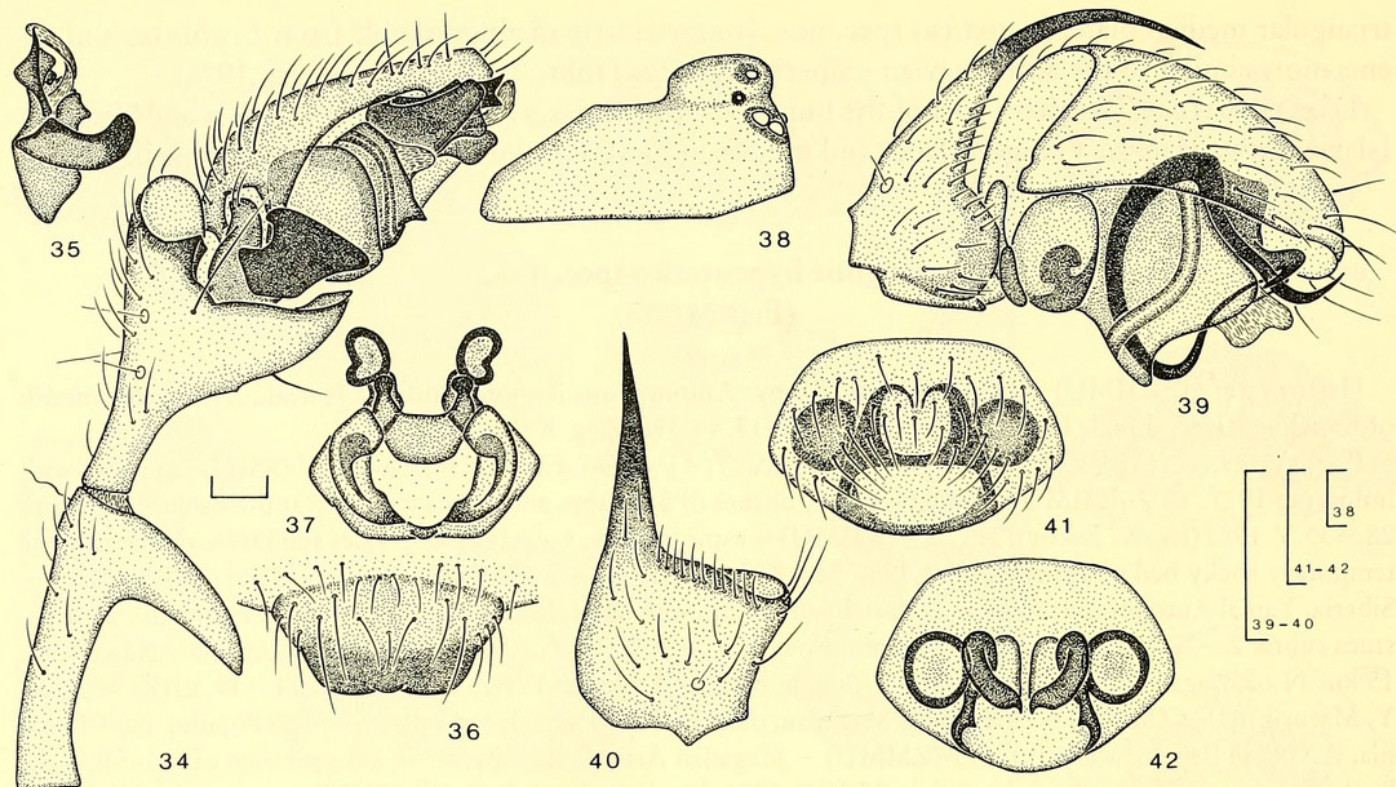
***Silometopus sibiricus* spec. nov.**

(Figs 38–42)

Holotype. ♂ (ZMMU) – USSR, Siberia, Magadan Area, upper Kolyma River, Sphagnum bog in the depression of a moraine, 25. VIII. 1984 (leg. K. Eskov & Y. Marusik).

Paratypes. 2♂, 8♀ (ZMMU) – together with holotype; 6♂, 9♀ (ZMMU), 3♂, 4♀ (ZSM, EK-Nr. 979) – same locality, boggy taiga of *Larix dahurica* with *Betula middendorfi*, 1. VIII. – 12. IX. 1985 (leg. Y. Marusik); 5♂, 4♀ (ZMMU), 1♂, 2♀ (SMF) – Magadan Area, Detrin River, 56 km upstream from mouth, Vakhanka Spring, boggy taiga of *Larix dahurica*, 29. VIII. 1986 (leg. Y. Marusik); 1♂, 3♀ (ZMMU) – Siberia, Buryat Autonomous Republic, Vitim River, 40 km downstream off mouth of Zaza River, Baisa Spring, boggy taiga of *Larix dahurica* with *Betula nana*, 20. VIII. 1983 (leg. V. Zherikhin).

Description. Total length of male/female 1.20–1.25/1.28–1.40. Carapace yellowish-brown, its length/width 0.55–0.58/0.43–0.45 in male, 0.55–0.58/0.43–0.45 in female. Male carapace as in Fig. 38. Legs dark yellow; length of joints of legs I/IV 0.43/0.45 + 0.15/0.15 + 0.30/0.35 + 0.20/0.25



Figs 34–42. *Erigone hypoarctica* spec. nov. 34) male palp; 35) embolic division; 36) epigyne; 37) vulva. — *Silometopus sibiricus* spec. nov. 38) male carapace; 39) male palp; 40) male palpal tibia, dorsal view; 41) epigyne; 42) vulva. Scale 0.1 mm.

+ 0.18/0.20 in male, 0.43–0.45 + 0.15/0.15 + 0.30/0.35 + 0.20/0.25 + 0.18/0.20 in female; tibial spines 1-1-1-1, short (less than d of joint); Tm I – 0.71, Tm IV absent. Abdomen grey, ovoid. Male palp and epigyne as in Figs 39–42.

Diagnosis. By the shape of the male palpal tibia and frontal apophysis of the embolic division. *S. sibiricus* spec. nov. seems particularly similar to the Siberian *S. uralensis* Tanasevitch, 1985, though is clearly distinguishable by the smaller size, steep posterior side of the cephalic elevation of the male carapace, very long and sharp apophysis of the palpal tibia, and absence of a clearly delimited median plate of the epigyne (cp. TANASEVITCH 1985).

Distribution. Southern point of Cherskogo Mt. Ridge (taiga belt), upper Kolyma River and Vitim Table-land.

***Panamomops transbaikalicus* spec. nov.**

(Figs 43–47)

Holotype. ♂ (ZMMU) – USSR, Siberia, Buryat Autonomous Region, Vitim River, 40 km downstream off mouth of Zaza River, Baisa Spring, rocky bank of the spring, 20. VIII. 1983 (leg. V. Zherikhin).

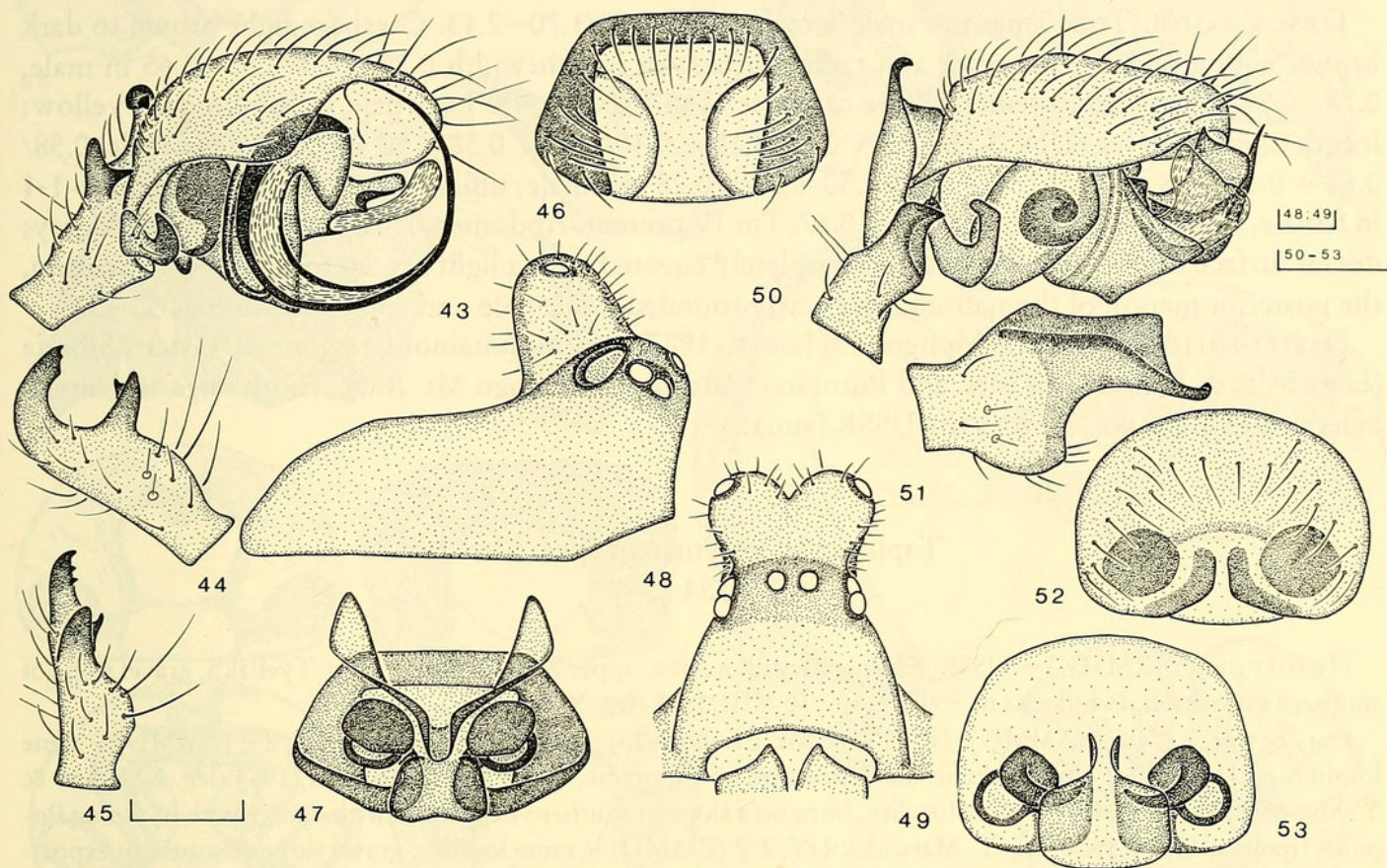
Paratypes. 2 ♀ (ZMMU) – together with holotype.

Description. Total length of male/female 1.70/1.63–1.85. Carapace dark yellow, its length/width 0.78/0.60 in male, 0.75–0.80/0.58–0.60 in female. male carapace with declivously elevated cephalic part provided with postocular pits. Legs dark yellow; length of joints of legs I/IV 0.63/0.70 + 0.20/0.20 + 0.55/0.60 + 0.45/0.53 + 0.38/0.38 in male, 0.70/0.73 + 0.20/0.20 + 0.58/0.60 + 0.48/0.53 + 0.38/0.38 in female; tibial spines 2-2-1-1, moderately long (1 d of joint); Tm I – 0.37, tm IV absent. Abdomen grey, ovoid. Male palp and epigyne as in Figs. 43–47.

Diagnosis. The presence of two lateral apophyses on the male palpal tibia makes *P. transbaikalicus* spec. nov. related to the European *P. affinis* Miller & Kratochvíl, 1939; *P. fagei* Miller & Kratoch-

vil, 1939; *P. latifrons* Miller, 1959; and *P. menzei* Simon, 1926, but they differ well in the presence of the large ventral tooth on the proximal apophysis of the male palpal tibia, practically nonmodified male carapace with neither horns nor hair bunches, and regularly rounded edges of the epigynal median plate (cp. WIEHLE 1960, THALER 1973).

Distribution. Vitim Table-land.



Figs 43–53. *Panamomops transbaikalicus* spec. nov. 43) male palp; 44) male palpal tibia, dorsal view; 45) male palpal tibia, ectal view; 46) epigyne; 47) vulva. — *Pelecopsis dorniana* Heimer, 1987. 48) male carapace, lateral view; 49) male carapace, frontal view; 50) male palp; 51) male palpal tibia, dorsal view; 52) epigyne; 53) vulva. Scale 0.1 mm.

Pelecopsis dorniana Heimer, 1987 (Figs 48–53)

Material examined. 2♂, 10♀ (ZMMU), 1♂, 7♀ (ZSM, EK-Nr. 971) — USSR, Siberia, Taimyr Autonomous Region, Putorana Plateau, Ayan Lake, mouth of Kapchug River, bushes of *Salix* spp. and *Alnus fruticosa* at the rocky bank of a spring, 28. V. – 7. VI. 1983 (leg. K. Eskov); 18♀ (ZMMU) — same locality, taiga of *Larix dahurica* with green mosses at natural levee of the river, 7. – 23. VI. 1983 (leg. K. Eskov); 1♂, 2♀ (ZMMU) — same locality, rocky bank of the river, 25. V. 1983 (leg. K. Eskov); 1♂ (ZMMU) — same locality, *Salix* sp. bushes with green mosses at the alluvial cone of a spring, 13. VI. 1983 (leg. K. Eskov); 2♀ (ZMMU) — Ayan Lake near the source of Ayan River, taiga of *Larix dahurica* with green mosses, 27. VI. 1983 (leg. K. Eskov); 1♀ (ZMMU) — same locality, vegetation of grasses and *Dryas punctata* at the temporary rocky bed of a spring, 14. VI. 1983 (leg. K. Eskov); 2♂ (ZMMU) — Siberia, Tuva Autonomous Republic, West Sayan Mts., Turan, taiga of *Larix sibirica* with green mosses on slope, 8. VIII. 1984 (leg. A. Ryvkin); 1♂, 5♀ (ZMMU) — Siberia, Magadan Area, Kolyma River 12 km upstream of Vetrenny, *Betula* sp. and *Salix* spp. bushes at the edge of a *Carex* bog, 5. VIII. 1984 (leg. K. Eskov); 5♂, 16♀ (ZMMU) — upper Kolyma River, Sibit-Tyellakh, *Pinus pumila* thickets, 24. VIII. – 9. IX. 1984 (leg. K. Eskov & Y. Marusik); 7♂, 8♀ (ZMMU) — same locality, *Salix* bushes at the edge of a *Carex* bog, 23. VIII. 1984 (leg.

Y. Marusik); 19♂, 44♀ (ZMMU), 10♂, 20♀ (ZSM) – same locality, overgrowth of *Betula* sp. with grasses on the southern slope of mountain, VI.–VII. 1983, 21.–31. VIII. 1984, VIII.–IX. 1985 (leg. K. Eskov & Y. Marusik); 2♂, 3♀ (ZMMU) – same locality, alpine belt of Bolshoy Annachag Mt. Ridge, 1200–1300 m, bushes of dwarfish *Alnus fruticosa* and *Pinus pumila*, 8.–21. VIII. 1984 (leg. K. Eskov); 1♂ (ZMMU) – same locality, alpine belt, 1300 m, Sphagnum bog along a stream, 22. VIII. 1984 (leg. K. Eskov); 10♂, 10♀ (ZIL), 10♂, 10♀ (ZSM), 10♂, 10♀ (SMF) – same locality, VI.–VIII. 1986 (leg. Y. Marusik); 1♀ (ZMMU) – Siberia, Chukotka Autonomous Region, coast of Chaunskaya Guba Gulf, delta of Chaun River, 10.–20. VIII. 1982 (leg. I. Obushenkov).

Description. Total length of male/female 1.78–1.88/1.70–2.13. Carapace light brown to dark brown with a grey median spot and radial stripes; its length/width 0.75–0.78/0.63–0.65 in male, 0.78–0.80/0.65–0.68 in female. Male carapace as in Figs 48–49. Legs pale yellow to dark yellow; length of joints of legs I/IV 0.53/0.63 + 0.18/0.18 + 0.45/0.60 + 0.38/0.50 + 0.28/0.28 in male, 0.58/0.68 + 0.18/0.18 + 0.43/0.55 + 0.38/0.50 + 0.28/0.28 in female; tibial spines 0-0-0-0 in male, 1-1-1-1 in female, short ($\frac{1}{2}$ d of joint); Tm I – 0.87, Tm IV present. Abdomen ovoid, light grey to dark grey; dorsal surface of the male abdomen is completely covered with a light brown to dark brown scutum, the posterior margin of the scutum is regularly rounded. Male palp and epigyne as in Figs 50–53.

Distribution: Western Mongolia (HEIMER, 1987) and mountainous regions of eastern Siberia (taiga belts of West Sayan Mts. and Putorana Plateau), Cherskogo Mt. Ridge (both taiga and alpine belts), and Chukotka. New to the USSR fauna!

***Tapinocyba kolymensis* spec. nov.**

(Figs 54–58)

Holotype. ♂ (ZMMU) – USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, gravel slope of southern exposition, in hillocks of *Stellaria* sp., 30. VIII. 1985 (leg. Y. Marusik).

Paratypes. 1♂, 1♀ (ZMMU), 1♂, 1♀ (ZSM, EK-Nr. 975) – together with holotype; 2♀ (ZMMU) – same locality, rocky bank of a little lake in the depression of a moraine, under stones, 25. VIII. 1984 (leg. K. Eskov & Y. Marusik); 1♀ (ZMMU) – same locality, burn on a slope of southern exposition with overgrowth of young *Populus tremula*, 13. IX. 1984 (leg. Y. Marusik); 1♂, 2♀ (ZMMU) – same locality, gravel slope of southern exposition, in hillocks of *Saxifraga multiflora*, 22. VIII. 1985 (leg. Y. Marusik).

Description. Total length of male/female 1.50–1.60/1.45–1.65. Carapace dark yellow, its length/width 0.63–0.68/0.48–0.51 in male, 0.60–0.63/0.45–0.48 in female; cephalic portion of the male carapace is declivously elevated and provided with elongated postocular pits. Legs dark yellow; length of joints of legs I/IV 0.38/0.40 + 0.13/0.15 + 0.25/0.28 + 0.20/0.23 + 0.18/0.20 in male, 0.38/0.40 + 0.13/0.15 + 0.25/0.28 + 0.20/0.23 + 0.18/0.20 in female; tibial spines 1-1-1-1, moderately long (1 d of joint); Tm I – 0.43, Tm IV absent; tarsal claws pectinated. Abdomen pale grey, ovoid.

Diagnosis. By the shape of the genitalia, *T. kolymensis* spec. nov. seems most closely related to the European *T. insecta* (L. Koch, 1869), but differs in the orthogonal (in lateral view) tip of the male palpal tibia, longer and pointer apophysis of the embolic division, and longer knob crowning the slopes of the epigynal pit (cp. WIEHLE 1960).

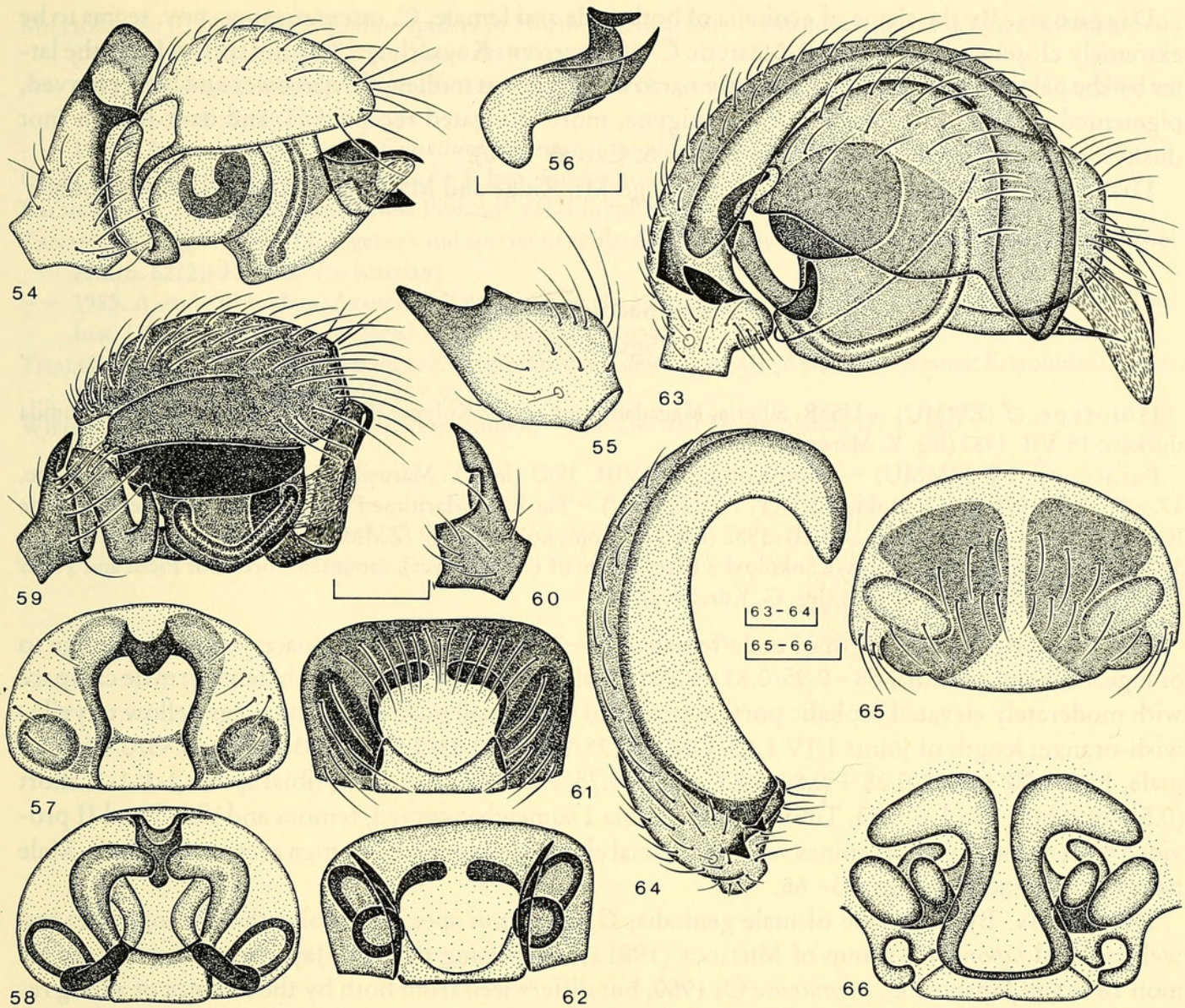
Distribution. Southern point of Cherskogo Mt. Ridge.

***Ceratinopsis orientalis* spec. nov.**

(Figs 59–62)

Holotype. ♂ (ZMMU) – USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, small *Carex* swamp in boggy taiga of *Larix dahurica* with *Betula middendorfi*, 3. IX. 1984 (leg. K. Eskov & Y. Marusik).

Paratypes. 7♂, 2♀ (ZMMU), 2♂, 1♀ (ZSM, EK-Nr. 977), 2♂, 1♀ (SMF) – same locality, boggy taiga of *Larix dahurica* with *Betula middendorfi*, 21. V.–9. VII. 1984 (leg. I. Grishkan); 1♂ (ZMMU) – same locality, taiga



Figs 54–66. *Tapinocyba kolymensis* spec. nov. 54) male palp; 55) male palpal tibia, dorsal view; 56) embolic division; 57) epigyne; 58) vulva. — *Ceratinopsis orientalis* spec. nov. 59) male palp; 60) male palpal tibia, dorsomesal view; 61) epigyne; 62) vulva. — *Gonatium pacificum* spec. nov. 63) male palp; 64) male palpal tibia, dorsal view; 65) epigyne; 66) vulva. Scale 0.1 mm.

of *Larix dahurica* with *Vaccinium vitis-idea*, 21.–31. V. 1984 (leg. I. Grishkan); 1 ♂, 4 ♀ (ZMMU) — same locality, dry forest of *Betula* sp. on slope of southern exposition, 9. VI.–28. VIII. 1984 (leg. I. Grishkan); 2 ♀ (ZMMU) — same locality, shingle bank of a stream, 2. VIII. 1984 (leg. K. Eskov); 1 ♀ (ZMMU) — same locality, rocky bank of a small lake in the depression of a moraine, under stones, 25. VIII. 1984 (leg. K. Eskov & Y. Marusik); 1 ♂, 1 ♀ (ZMMU) — same biotope, 16. VII. 1986 (leg. Y. Marusik); 2 ♂ (ZMMU) — environs of Magadan, Snezhnaya Dolina, VI. 1986 (leg. Y. Marusik). 1 ♂ (ZMMU) — Siberia, Khabarovsk Area, Okhotsk District, Gyrbykan River (left tributary of Ulya River), mouth of Skalisty Spring, taiga of *Larix dahurica* with *Betula middendorfi* and *Ledum palustre*, 28. VIII. 1986 (leg. I. Sukacheva).

Description. Total length of male/female 1.70–1.85/1.95–2.05. Carapace dark brown, its length/width 0.70–0.75/0.60–0.63 in male, 0.78–0.80/0.63–0.65 in female; male carapace simple, nonmodified, provided with a row of long setae along longitudinal axis. Legs brownish-yellow; length of joints of legs I/IV 0.63/0.68 + 0.20/0.20 + 0.50/0.58 + 0.40/0.45 + 0.33/0.33 in male, 0.63/0.70 + 0.20/0.20 + 0.53/0.60 + 0.43/0.50 + 0.35/0.35 in female; tibial spines 1-1-1-1, moderately long (1 d of joint); Tm I – 0.43, Tm IV absent; tarsal claws not bifurcated. Abdomen black, ovoid. Male palp and epigyne as in Figs. 59–62.

Diagnosis. By the shape of genitalia of both male and female, *C. orientalis* spec. nov. seems to be extremely closely related to the E-Nearctic *C. purpurescens* Keyserling 1886, but differs from the latter by the palpal tibial apophysis abruptly narrowing at about midlength, narrower and better curved, pigmented stripes in the middle of the epigyne, more elongated receptacula, and dark brown (not dusky orange) colour of cerapace (cp. BISHOP & CROSBY 1930).

Distribution. Southern point of Cherskogo Mt. Ridge and Magadan and Middle Cisokhotia.

Gonatium pacificum spec. nov.

(Figs 63–66)

Holotype. ♂ (ZMMU) – USSR, Siberia, Magadan Area, upper Kolyma River, Sibit-Tyellakh, *Pinus pumila* thickets, 15. VII. 1983 (leg. Y. Marusik).

Paratypes. 1 ♀ (ZMMU) – same biotope, 11. VIII. 1983 (leg. Y. Marusik); 1 ♂ (ZSM) – same biotope, 17.–25. VIII. 1979 (leg. S. Bukhalo); 1 ♂, 1 ♀ (ZMMU) – Far East, Maritime Prov., Terney, Sikhote-Alin State Reserve, valley forest of *Picea*, 17. VIII. 1982 (leg. N. Gromyko); 4 ♂, 7 ♀ (ZMMU) – Far East, Maritime Prov., 35 km SE of Chuguyevka, Pravaya Sokolovka River (basin of Ussuri River), mountain forests of *Picea* and *Pinus koraiensis*, 20. VIII.–10. IX. 1974 (leg. G. Kurcheva).

Description. Total length of male/female 2.03–2.38/2.38–2.50. Carapace yellowish-orange to orange, its length/width 0.88–0.95/0.83–0.90 in male, 0.93–1.00/0.90–0.93 in female; male carapace with moderately elevated cephalic portion provided with small postocular pits. Legs yellow to yellowish-orange; length of joints I/IV 1.00/1.00 + 0.28/0.28 + 0.83/0.90 + 0.63/0.85 + 0.43/0.50 in female, 1.00/1.00 + 0.28/0.28 + 0.80/0.83 + 0.58/0.75 + 0.40/0.45 in male; tibial spines 1-1-1-1, short (0.5 d of joint); Tm I – 0.83, Tm IV present; tibia I somewhat curved, femora and tibia I and II provided with numerous short spines ventrally; tarsal claws pectinated. Abdomen grey to dark grey. Male palp and epigyne as in Figs. 63–66.

Diagnosis. By the shape of male genitalia, *G. pacificum* spec. nov. joins the homogenous and well-isolated *japonicum*-group of MILLIDGE (1981 a) comprising the Sino-Japanese *G. japonicum* Simon 1894 and Japanese *G. arimaense* Oi 1960, but differs well from both by the absence of a long retrobasal apophysis on the palpal tibia, presence of two (not one) darkened ectobasal teeth of palpal tibia, well pointed supratégulum, and median plate of the epigyne not abruptly narrowing toward base, as well as by the smaller size (cp. Oi 1960, MILLIDGE 1981 a).

Distribution. Southern point of Cherskogo Mt. Ridge and Sikhote-Alin Mts.

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