Arthropoda Selecta 1(1):39-50 © ARTHROPODA SELECTA, 1992

New genera and species of the tribe Lepthyphantini (Aranei Linyphiidae Micronetinae) from Asia (with some nomenclatorial notes on linyphiids)

Новые роды и виды трибы Lepthyphantini (Aranei Linyphiidae Micronetinae) from Asia (с замечаниями по номенклатуре линифиид)

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KEY WORDS: Systematics, Aranei, Linyphiidae, Micronetinae, Lepthyphantini, *Lepthyphantes*, new genera, new species.

КЛЮЧЕВЫЕ СЛОВА: Систематика, пауки, Linyphiidae, Micronetinae, Lepthyphantini, *Lepthyphantes*, новые роды, новые виды.

ABSTRACT: Four new genera are erected from the genus *Lepthyphantes*: *Himalaphantes* gen.n. for *Lepthyphantes grandiculus* Tan. (type species), *L. magnus* Tan., *L. martensi* Tan. and *L. azumiensis* Oi; *Herbiphantes* gen. n. for *H. longiventris* sp.n. (type species), *H. pratensis* sp.n. and *L. cericeus* (Saito); *Incestophantes* gen.n. for *Linyphia incesta* L.Koch (type species) and 8 species (all ex *Lepthyphantes*); *Crispiphantes* gen.n. for *Meioneta rhomboidea* Paik (type species), *L. biseulsanensis* Paik and *L. amurensis* Tan. Three new species of *Lepthyphantes* are described: *L. biconicus* sp.n. (Russia - Southern Primorie), *L. cognatus* sp.n. and *L. curvipes* sp.n.(both - from Sakhalin Island). The following synonymy, nomina nova and dubia are proposed: *Lepthyphantes haniensis* Zhu,Wen et Sun,1986 = *L.abiskoensis* Holm,1945 syn.n.; *L.ivanovi* Pakhorukov, 1981 = nomen dubium; *L.melanopleuros* (Grube, 1861) = nomen dubium; *Perro* nomen novum pro *Pero* Tanasevitch, 1985, praeocc.; *Perregrinus* nomen novum pro *Peregrinus* Tanasevitch, 1982, praeocc.; *Diplocephalus montaneus* nomen novum pro *D. montanus* Tan., 1989, praeocc.

РЕЗЮМЕ. Из рода *Lepthyphantes* выделены четыре новых рода: *Himalaphantes* gen.n. в составе: *Lepthyphantes grandiculus* Tan. (типовой вид), *L. magnus* Tan., *L. martensi* Tan. и *L. azumiensis* Oi; *Herbiphantes* gen. n. в составе: *H. longiventris* sp.n. (типовой вид), *H. pratensis*, sp.n. и *L. cericeus* (Saito); *Incestophantes* gen.n. для *Linyphia incesta* L.Koch (типовой вид) и 8 видов *Lepthyphantes*, а также *Crispiphantes* gen.n. для *Meioneta rhomboidea* Paik (типовой вид), *L. biseulsanensis* Paik и *L. amurensis* Tan. Описаны три новых вида рода *Lepthyphantes*: *L. biconicus* sp.n. (Южное Приморье), *L. cognatus* sp.n. и *L. curvipes* sp.n. (оба с Сахалина). Предложены следующие номенклатурные изменения: *Lepthyphantes haniensis* Zhu,Wen et Sun,1986 = *L.abiskoensis* Holm,1945 syn.n.; *L.ivanovi* Pakhorukov, 1981 = nomen dubium; *L.melanopleuros* (Grube, 1861) = nomen dubium; *Perro* nomen novum pro *Pero* Tanasevitch, 1985, praeocc.; *Perregrinus* nomen novum pro *Peregrinus* Tanasevitch, 1982, praeocc.; *Diplocephalus montaneus* nomen novum pro *D. montanus* Tan., 1989, praeocc.

The genus *Lepthyphantes* is considered as the largest among Linyphiidae. However this is seems a consequence too wide generic treatment of the genus. Actually the genus *Lepthyphantes* contents a lot of species-groups and some forms, which are obviously have to be arranged as the separate genera. The start of this process have been made by establishing of new genera for the *nebulosus* species group by J.Wunderlich (in press) and for the *keyserlingi*-group by M.Saaristo (pers. comm.). The present paper is devoted to creation another four new genera for some species groups of *Lepthyphantes*, the description of new species of *Lepthyphantes*, as well as some innovations in linyphiid nomenclature are proposed.

The following abbreviations are accepted in the text and figures: Fe - femur, Ti - tibia, Mt - metatarsus, Tm I - position of metatarsal trichobothrium, R - radix, TA - terminal apophysis, E - embolus, MP - posterior median plate. All measurements are given hereinafter in mm. Scale - 0.1 mm, if not otherwise indicated. The seguence of leg segments in measurement data is following: femur + patella + tibia + metatarsus + tarsus.

Type materials are deposited in Zoological Museum of the Moscow State University (ZMMU).

Family Linyphiidae

Genus *Herbiphantes* Tanasevitch, n.

Type species: *Herbiphantes longiventris* Tanasevitch, sp.n.

DESCRIPTION. Large and pale forms with tetragnathid habitus. Total length 3.50-5.00. Chelicerae relatively long and modified. Legs very long and thin, with dark bands in *H. longiventris*; in other members - distal part of tibia is dark only. Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; Ti I-II: 2-1-1-4 (the lateral spines seems as a third pair of ventral ones), III: 2-1-1-2(3), IV: 2-1-1-3(4); Mt I-IV with 1 dorsal and 2-5 chaotically arranged spines. Femora carry numerous thin and long hairs ventrally. Tm I- 0.12-0.18. Genitalia of both sexes very small. Male palp characterized by long tibia (especially in *H.cericeus* - Fig.1e), membraneous terminal apophysis, small embolus and very poor segmentation of bases of the embolic division sclerits. Paracymbium toothless. Epigynal cuticle pale and transparent, so ducts are distinct. Scapus broad. Ducts go along the proximal segment of the scapus, the stretcher is absent. Posterior median plate enlarged and modified. Abdomen long (especially in male), pale, with white or grey dorsal pattern.

DIAGNOSIS. The genus is closely related to Himalayan *Himalaphantes*, gen.n. (by long legs and male tibia, modified male chelicerae, and especially by similar shape of embolic division - cf. Figs. 1b,d,f and Figs. 3b,d,h), but differs by enlargement and modification of posterior median plate, absence of dorsal spine on femora, and habitus.

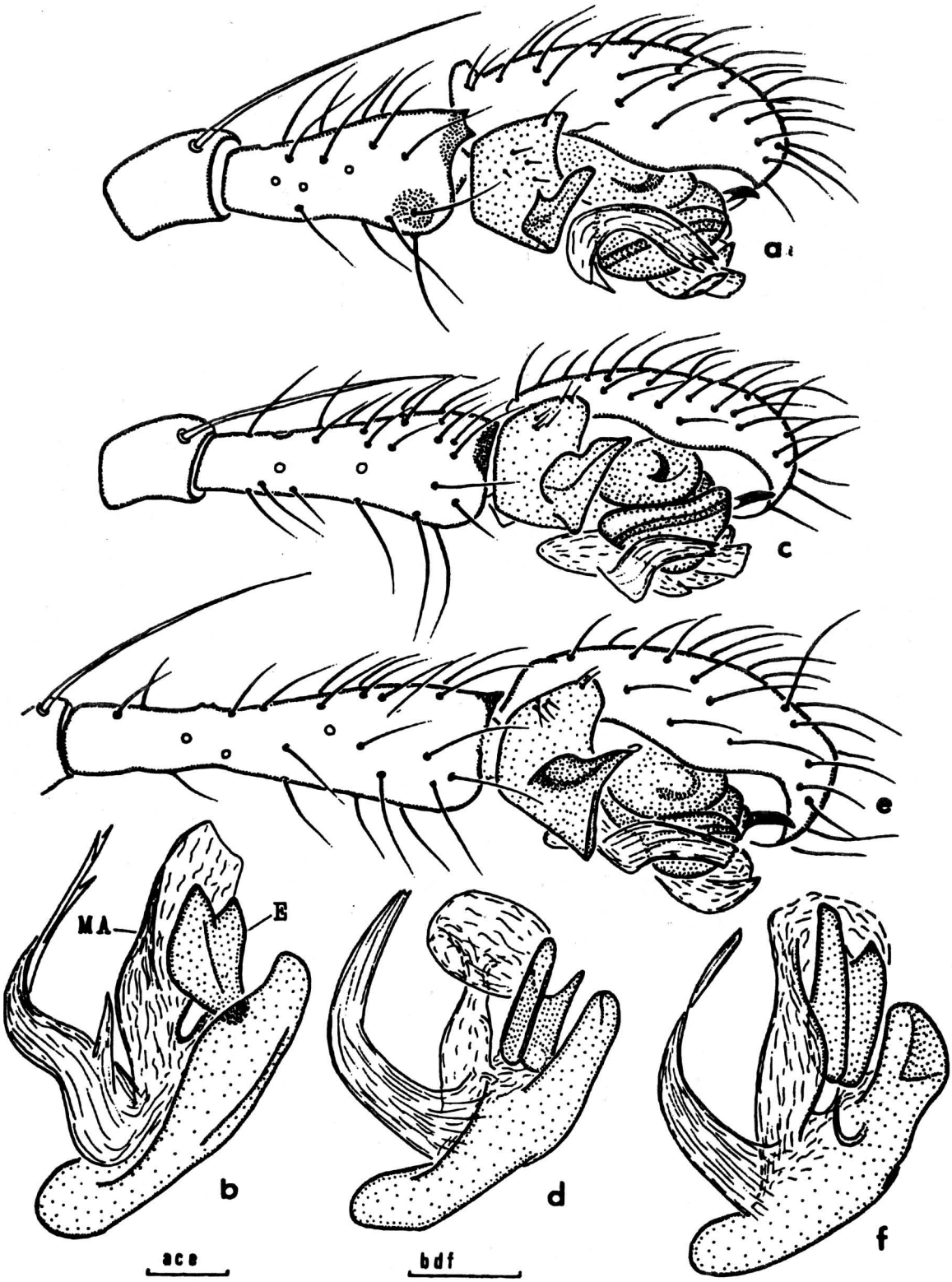
DISTRIBUTION. The new genus consists of three very closely related species: *Herbiphantes longiventris*, sp.n. (Russia, Southern Primorie), *H. pratensis*, sp.n. (Southern Sakhalin) and *H. cericeus* (Saito) (ex *Lepthyphantes*) (Kunashir Island, Japan, Korea).

Herbiphantes longiventris Tanasevitch, sp.n.
Figs. 1a,b; 2a-d.

MATERIAL. Holotype: male (ZMMU), Russia, Southern Primorie, Khasan Distr., Kedrovaya Pad State Reserve, upper reaches of Kedrovaya River, broadleaved forest with *Phellodendron amurense*, *Syringa amurensis*, *Betula davurica*, 13.09.1988, leg. B.P.Zakharov. Paratype: 1 female (ZMMU), Kedrovaya Pad State Reserve, bank of Kedrovaya River, in grass, 31.08.1988, leg. L.A.Nesov.

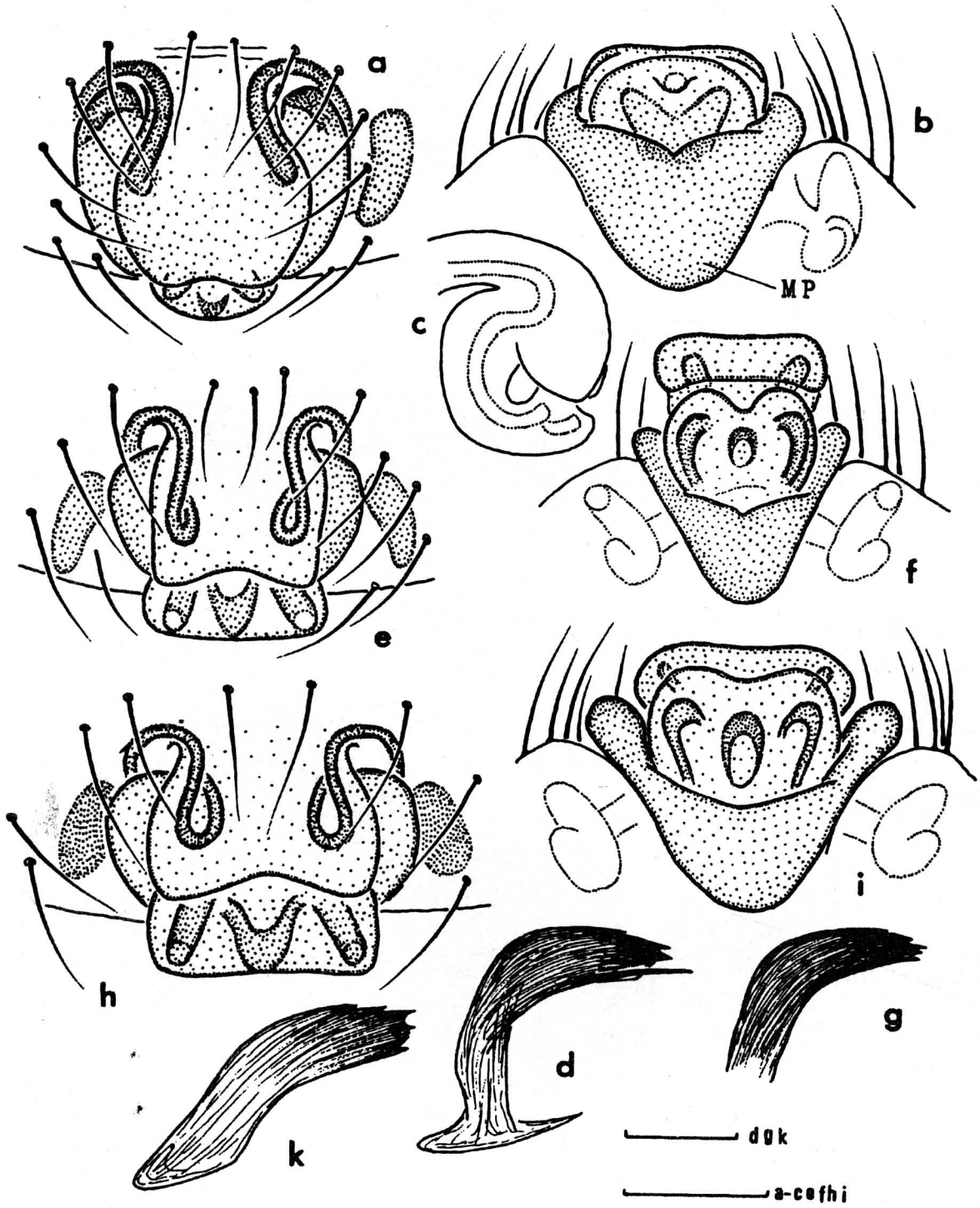
DESCRIPTION. MALE. Total length 3.80. Carapace 1.95 long, 1.20 wide, brown, with broad dark median stripe and a wide dark margin. Chelicerae 1.20 long. The leg segments are mostly lost. Femora (I - 4.45 long, II - 4.00, III - 2.45, IV - 3.05) pale brown, with dark bands, carry numerous thin and long hairs ventrally. Chaetotaxy as in female. Palp - Figs. 1a,b; 2d. Abdomen 2.10 long, 0.95 wide, elongate, the dorsal pattern as in female.

FEMALE. Total length 3.50. Carapace 1.50 long, 1.15 wide, pale greyish-yellow, with broad dark median stripe and wide dark margin. Chelicerae 0.75 long. Legs very long, pale yellow, with numerous dark bands. Leg I - 10.80 long (2.70 + 0.55 + 2.80 + 3.00 + 1.75), IV - 9.15 (2.65 + 0.40 + 2.30 + 2.55 + 1.25). Chaetotaxy: FI: 0-1-0-0, II-IV: 0-0-0-0; Ti I-II: 2-1-1-4 (the lateral spines seems as the third pair of ventral ones), III: 2-1-1-2, IV: 2-



Figs.1: a,b - *Herbiphantes longiventris*, sp.n., holotype; c,d - *H. pratensis*, sp.n., holotype; e,f - *H. cericeus* (Saito), from South Sakhalin; a,c,e - right palp, b,d,f - embolic division.

Рис.1: a,b - *Herbiphantes longiventris*, sp.n., голотип; c,d - *H. pratensis*, sp.n., голотип; e,f - *H. cericeus* (Saito) с Ю.Сахалина; a,c,e - правая пальпа, b,d,f - эмболярный отдел.



Figs.2: a-d- *Herbiphantes longiventris*, sp.n.; e-g - *H. pratensis*, sp.n.; h-k - *H. cericeus* (Saito); a,b,e,f,h,i - epigyne, c - scapus separately, d,g,k - lamella characteristica.

Рис.2: a-d- *Herbiphantes longiventris*, sp.n.; e-g - *H. pratensis*, sp.n.; h-k - *H. cericeus* (Saito); a,b,e,f,h,i - эпигина, c - скапус отдельно, d,g,k - lamella characteristica.

1-1-3; Mt I-IV with 1 dorsal and 2-4 chaotically arranged spines. Tm I - 0.17. Femora ventrally carry numerous long and thin hairs. Abdomen 2.25 long, 1.10 wide, the dorsal pattern is very variable. Epigyne - Fig. 2a-c.

DIAGNOSIS. This species differs from others members of genus by presence of numerous dark bands on legs, more dark body colouration and relatively less length of male palpal tibia, as well as by some details of embolic division structure.

Herbiphantes pratensis Tanasevitch, sp.n.
Figs. 1c,d; 2e-g.

MATERIAL. Holotype: male (ZMMU), Russia, South of Sakhalin Island, 10 km E of Yuzhno-Sakhalinsk, Tourists Valley, 3.09.1988, leg. A.M.Basarukin. Paratypes: 2 females (ZMMU), same locality, together with holotype, leg. A.M.Basarukin.

DESCRIPTION. MALE. Total length 4.00. Carapace 1.60 long, 1.15 wide, pale yellow, with narrow dark median stripe and a narrow dark margin. Chelicerae 0.95 long. Legs very long and thin, pale yellow, without dark bands. Leg I - 14.10 long (3.55 + 0.50 + 3.65 + 4.35 + 2.05), IV - ? (Fe IV - 2.70). Femora carry numerous thin and long hairs ventrally. Chaetotaxy as in female. Tm I - 0.14. Palp - Figs. 1c,d; 2g. Abdomen 2.45 long, 1.00 wide, pale, with white dorsal pattern.

FEMALE. Total length 4.15. Carapace 1.55 long, 1.10 wide. Chelicerae 0.75. Leg I - 10.70 long (2.80 + 0.45 + 2.80 + 3.00 + 1.65), IV - 8.35 (2.40 + 0.35 + 2.10 + 2.30 + 1.20). Tm I - 0.13. Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; Ti I-II: 2-1-1-4, III: 2-1-1-3, IV: 2-1-1-4; Mt I-IV with 1 dorsal and 3-5 chaotically arranged spines. Abdomen 2.50 long, 1.40 wide. Epigyne - Fig. 2e, f.

DIAGNOSIS. This species seems especially closely related to *H. cericeus*, comb.n. (see below).

Herbiphantes cericeus (Saito, 1934), comb.n.
Figs. 1e,f; 2h-k.

Nesticus cericeus. - Saito, 1934.
Lepthyphantes cericeus. - Yaginuma, 1956.
Menosira cericea. - Yaginuma, 1961.
Lepthyphantes cericeus. - Yaginuma, 1977.
Lepthyphantes cericeus. - Saito, 1983.
Lepthyphantes cericeus. - Tanasevitch, 1990.

MATERIAL: 1 male, Russia, Kuril Islands, Kunashir Island, Otradnoye, 19.09.1987; 2 male, the same locality, 28.08.1988; 4 female, Mendeleyev Volcano, 1-3.09.1987; 1 female, Alyekhino, 25.08.1987. All collections are made by A.M.Basarukin.

REMARKS. This species was described in *Nesticus* Thor. [Saito, 1934] and later transferred firstly to *Lepthyphantes* [Yaginuma, 1956] and then - to Tetragnathidae, namely to *Menosira* Chikuni [Yaginuma, 1961]. In later publications this species mentioned as *Lepthyphantes* [Yaginuma, 1977, Saito, 1983, Tanasevitch, 1990]. This species seems especially closely related to *H. pratensis*, sp.n., but differs by longer male palpal tibia (the length of tibia is variable intraspecifically!), relatively larger embolus, as well as by the shape of scapus: the length of scapus in *H. pratensis*, sp.n. is more then its wide (in *H. cericeus* - vice versa).

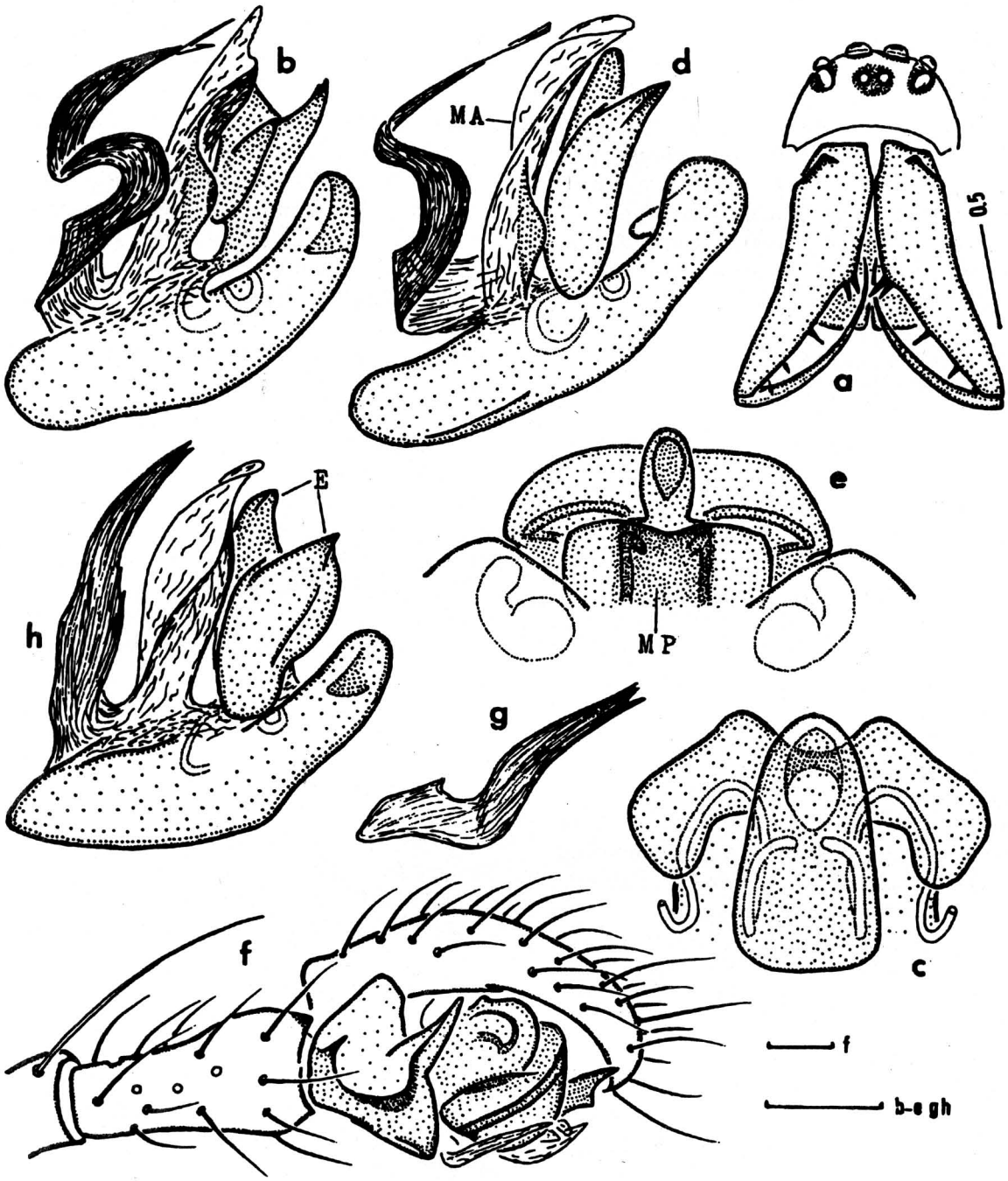
DISTRIBUTION. Russia: Kuril Islands: Kunashir Island [Tanasevitch, 1990], Japan: Hokkaido, Honshu, Shikoku [Yaginuma, 1977], Korea [Paik, 1985].

Genus *Himalaphantes* Tanasevitch, n.

Lepthyphantes martensi-group. - Tanasevitch, 1987.

Type species: *Lepthyphantes grandiculus* Tanasevitch, 1987.

DESCRIPTION. Large and dark forms. Total length 3.00-7.10. Carapace reddish-brown, brown. Legs pale brown, brown, with numerous dark bands. The main feature of the chaetotaxy a presence of a dorsal spine on femora I-IV. Chaetotaxy: F I: 1-1(2)-0-0, II-IV: 1-0-0-0; Ti I-II: 2-2(1)-2(1)-2, III-IV: 2-2(1)-2(1)-1; Mt I-IV: 1-1-1-1. Tm I - 0.12-0.20. Male chelicerae are modified (except *Lepthyphantes martensi* Thaler), very long and slender (especially in *L.grandiculus* - Fig.3a). The genitalia of both sexes are very small. Male palp characterized by elongated tibia, small embolus and well membraneous terminal apophysis (Fig.3b,d,h). Scapus of epigyne well sigmoid-shaped, seminal ducts go along all segments. The proximal segment of scape very broad, covers aperture entirely. Stretcher is present in *L.martensi* only (Fig.3e); in other congeners stretcher is absorbed by apex of scapus distal segment (as in Fig.3c). Posterior median plate small, not modified (as in Fig.3e).



Figs.3: a-c - *Himalaphantes grandiculus*, sp.n.; d,e - *H. martensi* (Thaler); f-h - *H. azumiensis* (Oi); a - chelicerae, b,d,h - embolic division, c - epigyne (ventral view), e - scapus separately (ventral view), f - right palp, g - lamella characteristica.

Рис.3: a-c - *Himalaphantes grandiculus*, sp.n.; d,e - *H. martensi* (Thaler); f-h - *H. azumiensis* (Oi); a - хелицеры, b,d,h - эмболярный отдел, c - эпигина (вентрально), e - скапус отдельно (вентрально), f - правая пальпа, g - lamella characteristica.

Abdomen of male elongate, in female more wide, the dorsal pattern present.

DIAGNOSIS. The genus is closely related to *Herbiphantes*, gen.n. (see above).

DISTRIBUTION. The genus consists of four species (all *ex Lepthyphantes*): *H. grandiculus* (Tan., 1987), comb.n., *H. magnus* (Tan., 1987), comb.n., *H. martensi* (Thaler, 1987), comb.n. (Himalayas: Kashmir, Nepal

see Thaler, 1987, Tanasevitch, 1987), and *L. azumiensis* (Oi, 1980), comb.n. (Japan: Honshu see Oi, 1980; Russia, Southern Primorie: Kedrovaya Pad State Reserve).

Genus *Incestophantes* Tanasevitch, n.

Lepthyphantes incestus- group. - Tanasevitch, Eskov, 1987.

Type species: *Linyphia incesta* L. Koch, 1879.

DESCRIPTION. Rather large forms, total length 2.30-3.50. Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; Ti I: 2-1-1-2(1, 4), II: 2-1(0)-1(0)-2(1), III: 2-1(0)-1(0)-1, IV: 2-1-1-1; Mt I-IV: 1-0-0-1 (or Mt I-III: 1-0-0-0, IV: 1-0-0-1). Tm I - 0.19-0.26. Palp: cymbium with process(es) basally. Paracymbium large, carries one or more teeth. Lamella characteristica usually wide and long. The palp is characterized by the large and well sclerotized terminal apophysis divided, as a rule, into 2-3 well pigmented parts, as well as by the small embolus. Epigyne large and protrude. Base of scapus strong, well sclerotized, immobile. Stretcher is present. Posterior median plate enlarged and modified (as in Fig.4a,b), covers almost all aperture. Abdominal pattern present.

DIAGNOSIS. The new genus closely related to *Crispiphantes*, gen.n., but differs by the structure of embolic division (see description).

DISTRIBUTION. The genus consists of nine species (all *ex Lepthyphantes*): *I. incestus* (L.Koch, 1879), comb.n. (W. and S. Siberia), *I. incestoides* (Tan. et Esk., 1987), comb.n. (S. and E. Siberia), *I. amotus* (Tan., 1990), comb.n. (Caucasus Major), *I. frigidus* (Sim., 1884), comb.n. (Alps, Balcans), *I. kochiellus* (Str., 1900), comb.n. (N. Europe, Siberia), *I. cymbialis* (Tan., 1987), comb.n. (E. Siberia), *I. camtchadalicus* (Tan., 1988), comb.n. (Kamchatka), *I. washingtoni* (Zorsch, 1937), comb.n. (N. America), *I. triramus* (Chamb. et Ivie, 1947), comb.n. (Alaska, Newfoundland).

Genus *Crispiphantes* Tanasevitch, n.

Type species: *Meioneta rhomboidea* Paik, 1985.

DESCRIPTION. Rather large forms, total length - 2.60-3.30. Chaetotaxy. Fe I: 0-1-0-0, II-IV: 0-0-0-0; TiI-II: 2-1-1-2, II-IV: 2-1-1-1; Mt I-IV: 1-1-1-1. Tm I - 0.16-0.24. Palp (it is known one male only!): cymbium with the long process basally; paracymbium with narrow connection between the proximal and distal lobes. Embolic division very complex (Fig.4e): it sclerits are demarcated very poorly. Radix of not semilunate shape (as majority of *Lepthyphantes* and paralepthyphantiod taxa), small, with deep hollow. Lamella characteristica large and complex. Embolus small. Epigyne protrude (see Fig.4c,d). The base of epigyne wrinkled. The base of scapus broad, semicircular, strong and immobile. Scape long but compact, rounded. Stretcher present. Posterior median plate enlarged and modified. Dorsal abdominal pattern present.

DIAGNOSIS. This genus is closely related to *Incestophantes*, gen.n. (see above).

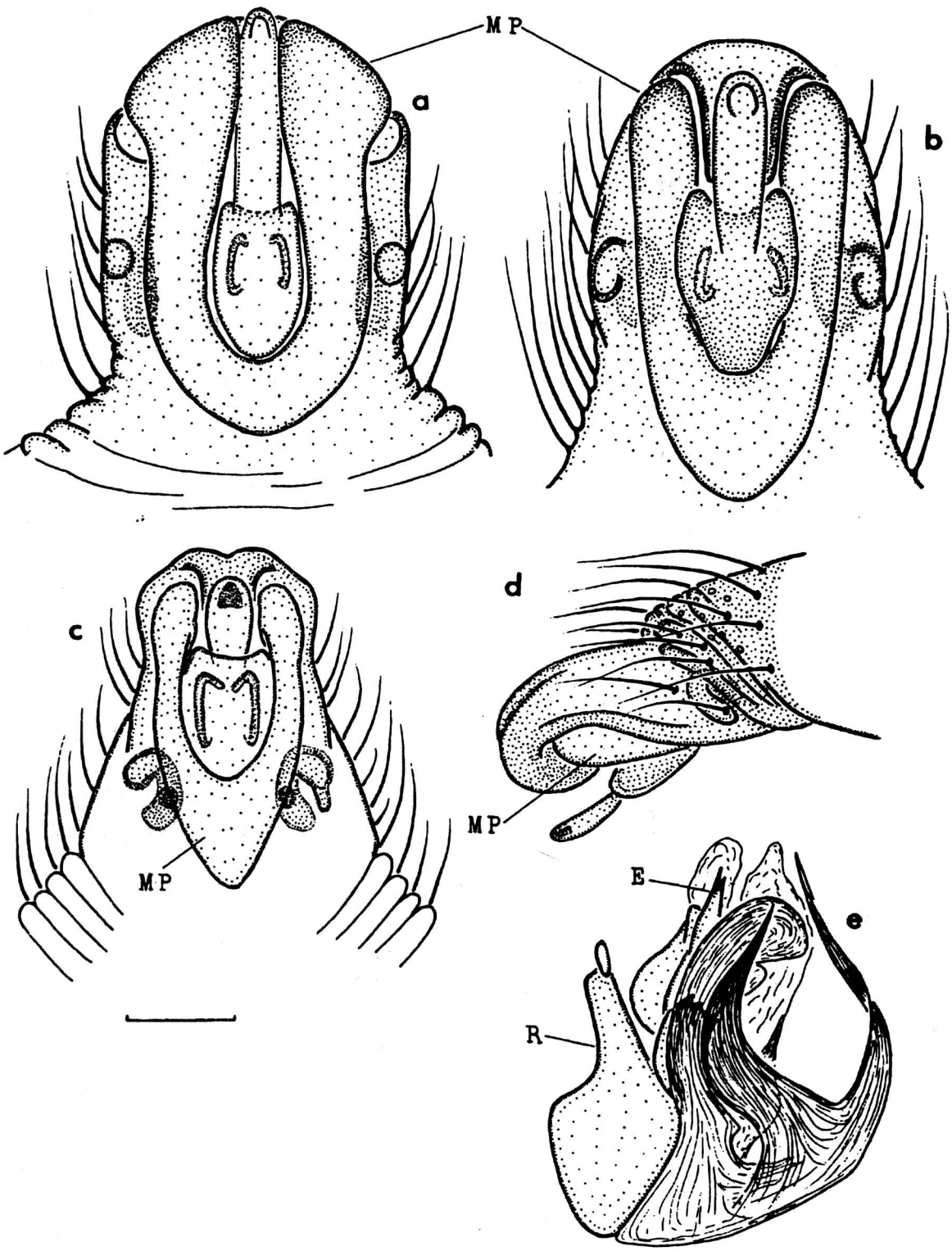
DISTRIBUTION. I include in this genus three species: *C. rhomboideus* (Paik, 1985), comb.n. (Korea), *C. biseulsanensis* (Paik, 1985), comb.n. (Korea, female only) and *C. amurensis* (Tan., 1987a), comb.n. (USSR: Amur Area) [note: the last species probably is a junior synonym of *C. rhomboideus*!].

Lepthyphantes cognatus Tanasevitch, sp.n.
Fig. 5a-c.

Lepthyphantes angulatus. - Tanasevitch, 1988.
Lepthyphantes cf. *angulatus*. - Tanasevitch, 1990.

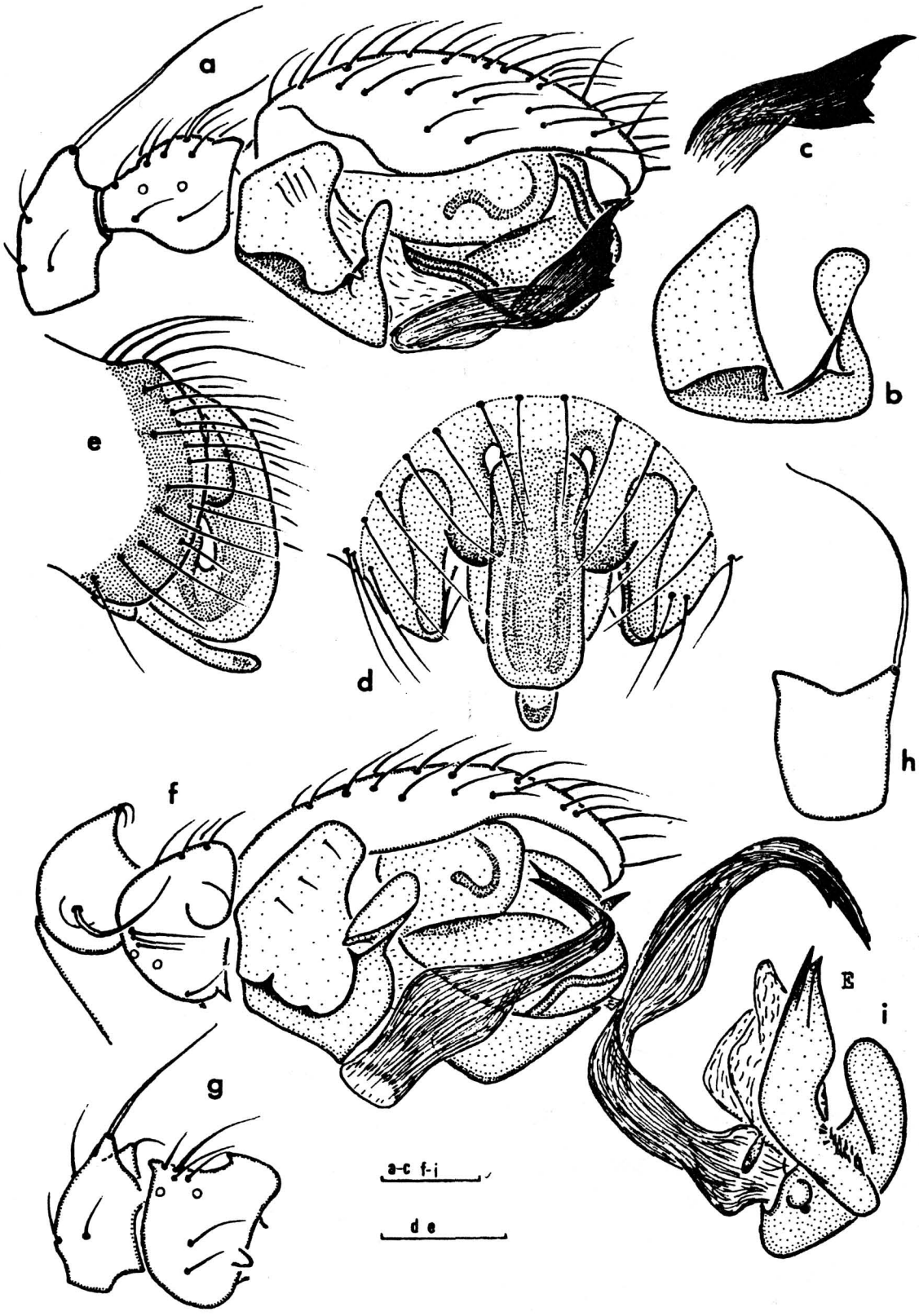
MATERIAL. Holotype: male (ZMMU), Russia, Sakhalin Island, Poronaisk Distr., upper reaches of Rukutama River, 7-27.04.1988, leg. A.M.Basarukin. Paratypes: 3 males, 2 females (ZMMU), same locality, together with holotype, leg. A.M.Basarukin; 1 male, 3 females (ZMMU), Poronaisk Distr., Vitnitza River, 27.10.1987, leg. A.M.Basarukin; 1 female (ZMMU), Makarov Distr., middle flow of Nituy River, 13-18.05.1988, leg. A.M.Basarukin; 1 male (ZMMU), Dolinsk Distr., Naiba River, 10 km N of Bykovo, meadow, 5-15.08.1991, leg. K.Y.Eskov; 2 males, 3 females (ZMMU), Okha Distr., upper reaches of Tenga River, 19-25.V.1987, leg. A.M.Basarukin.

DESCRIPTION. MALE. Total length 2.25. Carapace 1.00 long, 0.85 wide, pale brown. Chelicerae 0.47 long. Legs pale brown. Leg I - 3.89 long (1.00 + 0.30 + 1.03 + 1.00 + 0.56), leg IV - 4.09 (1.08 + 0.28 + 1.08 + 1.00 + 0.65). Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; TiI: 2-1-1-0, II: 2-0-1-0, III-IV: 2-0-0-0; Mt



Figs. 4: a - *Incestophantes incestus* (L.Koch); b - *I. incestoides* (Tan. et Esk.); c-e - *Crispiphantes amurensis* (Tan.); a-d - epigyne (a-c - ventral view, d - lateral view), e - embolic division.

Рис.4: a - *Incestophantes incestus* (L.Koch); b - *I. incestoides* (Tan. et Esk.); c-e - *Crispiphantes amurensis* (Tan.); a-d - эпигина (a-c - вентрально, d - латерально), e - эмболярный отдел.



Figs.5: a-e - *Lepthyphantes cognatus*, sp.n., f-i - *L. biconicus*, sp.n.; a,f - right palp, b - paracymbium, c - lamella characteristica, d,e - epigyne, g - patella and tibia (lateral view), h - patella (dorsal view), i - embolic division.

Рис.5: a-e - *Lepthyphantes cognatus*, sp.n., f-i - *L. biconicus*, sp.n.; a,f - правая пальпа, b - парацимбиум, c - lamella characteristica, d,e - эпигина, g - колено и голень (латерально), h - колено (дорсально), i - эмболярный отдел.

I-IV: 1-0-0-0. Tm I - 0.20. Palp (Fig.5a-c): Patella with conical process carry strong spine, cymbium without outgrowths basally; paracymbium with long and thin tooth midlength, lamella characteristica large, its distal part well sclerotized. Abdomen 1.26 long, 0.85 wide, grey or dark grey.

FEMALE. Total length 2.20. Carapace 0.93 long, 0.75 wide. Chelicerae 0.45 long. Leg I - 4.04 long (1.08 + 0.30 + 1.03 + 0.93 + 0.70), leg IV - 4.06 (1.10 + 0.30 + 1.03 + 1.00 + 0.63). Tm I - 0.24. Abdomen 1.28 long, 0.85 wide. Epigyne - Fig.5d,e. Body and leg colouration, chaetotaxy as in male.

DIAGNOSIS. Formerly this species was cited by me as *L. angulatus* and *L.* cf. *angulatus*, both from Sakhalin Island [Tanasevitch, 1988, 1990]. The new species joints to *angulatus*-complex (*L. angulatus* (O.P.-Cambr.), *L. geminus* Tan., *L. bipilis* Kulcz.) and distinguishes from other members by the presence of a narrow long tooth on paracymbium (look likes to *L. angulipalpis* (Westr.)), as well as by the parallel margins of the scape of epigyne.

Lepthyphantes biconicus Tanasevitch, sp.n.
Fig.5f-i.

MATERIAL. Holotype: male (ZMMU): USSR, Khabarovsk Area, Bolshekhekhtzyrsky State Reserve, broadleaved forest with *Pinus sibirica*, 10.06.1987, leg. D.V.Logunov.

DESCRIPTION. MALE. Total length 1.90. Carapace 0.84 long, 0.68 wide, pale brown. Chelicerae 0.28 long. Legs pale brown, without dark bands. Leg I - 3.89 long (1.00 + 0.25 + 1.03 + 0.93 + 0.68), IV - 3.78 (1.00 + 0.25 + 1.00 + 0.95 + 0.58). Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; Ti I: 2-1-1-0, II: 2-0-1-0, III-IV: 2-0-0-0; Mt I-III(IV-?): 1-0-0-0. Tm I - 0.19. Palp (Fig.5f-i): Patella with two conical processes, one of which carries a strong spine. Tibia dorsally with outgrowth. Paracymbium with two small teeth. Lamella characteristica very long, curved, terminal apophysis membranous, embolus carries numerous sharp teeth basally. Abdomen 1.00 long, 0.70 wide, grey.

FEMALE unknown.

DIAGNOSIS. The new species joints to *improbulus*-complex, including *L. improbulus* Sim., *L. complicatus* (Em.), *L. flexilis* Tan. [female of *L. sibiricus* Tan. (paratype!) is actually a female of *L. flexilis* (paratype!): see Eskov, 1988], and probably *L. potanini* Tan., and seems especially closely related to *L. flexilis*. From the late species and other congeners *L. biconicus* sp.n. well distinguished by presence of two conical processes on palpal patella, shape of tibia, as well as by the shape of lamella characteristica.

Lepthyphantes curvus Tanasevitch, sp.n.
Fig. 6a-f.

MATERIAL. Holotype: male (ZMMU): USSR, Sakhalin Island, Poronaisk Distr., upper reaches of Rukutama River, 17-27.04.1988, leg. A.M.Basarukin. Paratypes: 3 females (ZMMU), the same locality, together with holotype, leg. A.M. Basarukin; 1 female (ZMMU), Poronaisk Distr., Vitnitza, 27.10.1987. leg. A.M.Basarukin; 1 female (ZMMU), Aniva Distr., near Novoalexandrovsk, 20.04.1987, leg. A.M.Basarukin.

DESCRIPTION. MALE. Total length 1.98. Carapace 0.90 long, 0.75 wide, pale brown. Chelicerae 0.38 long. Legs pale brown, without dark bands. Leg I - 3.53 long (0.95 + 0.25 + 0.90 + 0.80 + 0.63), IV - 3.61 (0.95 + 0.23 + 0.95 + 0.88 + 0.60). Chaetotaxy: Fe I: 0-1-0-0, II-IV: 0-0-0-0; Ti I: 2-1-1-0, II: 2-0-1-0, III-IV: 2-0-0-0; Mt I-III: 1-0-0-0. Tm I - 0.16. Palp - Fig.6a-c. Abdomen 1.05 long, 0.68 wide, grey.

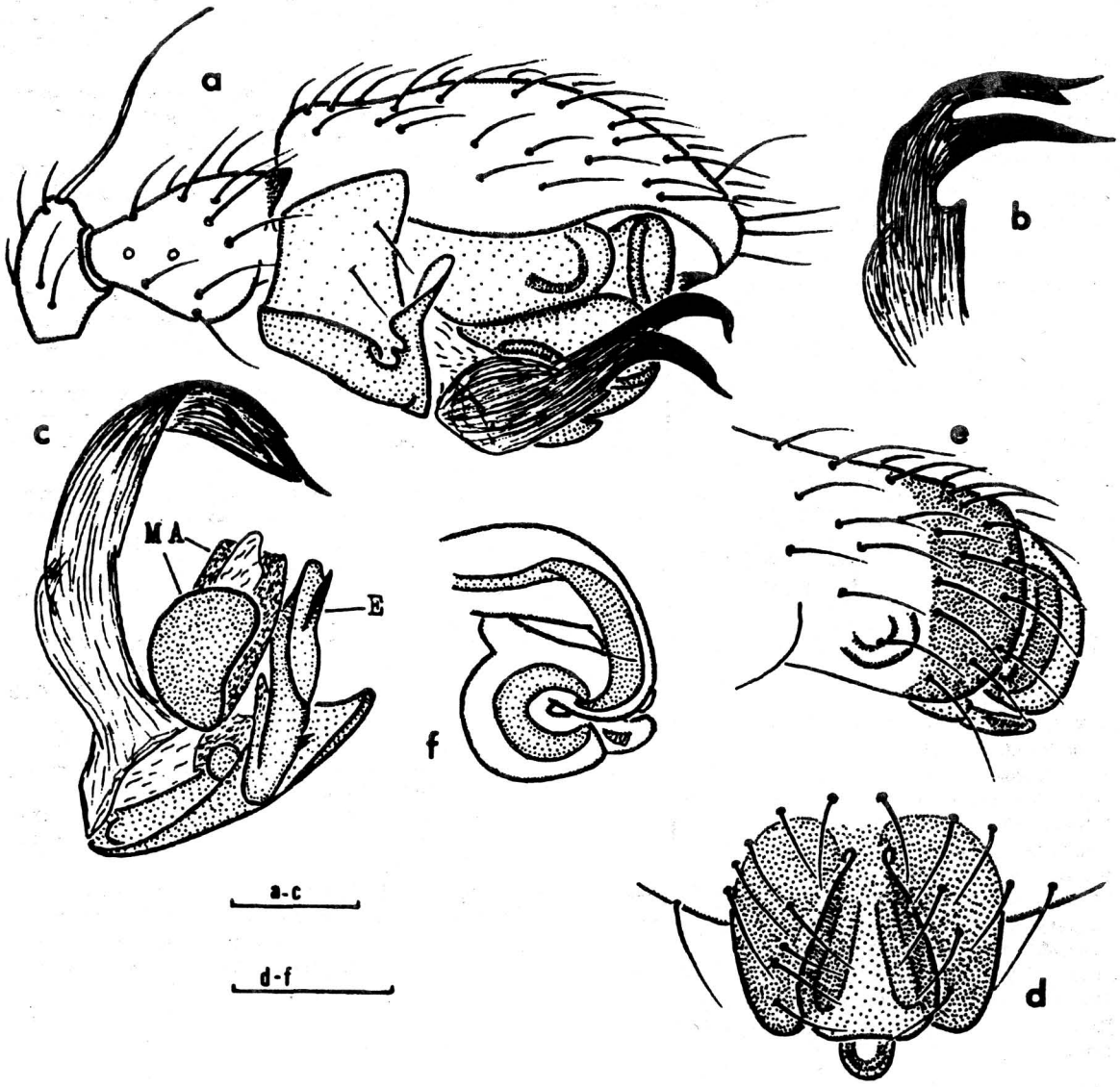
FEMALE. Total length 2.10. Carapace 0.83 long, 0.68 wide. Chelicerae 0.40 long. Leg I - 3.15 long (0.85 + 0.25 + 0.80 + 0.70 + 0.55), IV - 2.86 (0.78 + 0.20 + 0.70 + 0.68 + 0.50). Tm I - 0.21. Abdomen 1.25 long, 0.75 wide. Epigyne - Fig.6d-f. Body and leg colouration, chaetotaxy as in male.

DIAGNOSIS. This species seems closely related to *L. dybowskii* (O.P.-Cambr.) from which it distinguishes by the shape of lamella characteristica, more elongate terminal apophysis, and more long teeth (two in both species) on embolus.

Nomenclatorial notes

1. *Lepthyphantes haniensis* Zhu,Wen et Sun,1986 = *L.abiskoensis* Holm,1945 syn.n.

2. *Lepthyphantes xinjiangensis* Hu et Wen,1989 = *L.kronebergi* Tanasevitch,1989 syn.n. According to the figures of the male and female genitalia in the original description,



Figs.6: a-f - *Lepthyphantes curvus*, sp.n.; a - right palp, b - lamella characteristica, c - embolic division, d,e - epigyne, f - scapus separately (lateral view).

Рис.6: a-f - *Lepthyphantes curvus*, sp.n.; a - правая пальпа, b - lamella characteristica, c - эмболярный отдел, d,e - эпигина, f - скапус отдельно (латерально).

L.xinjiangensis is identical to *L.kronebergi* described by me from the Middle Asia.

3. The revision of type of *Lepthyphantes ivanovi* Pakhorukov, 1981 (deposited in Perm University), described from Northern Ural [Pakhorukov, 1981], discovers that it is a actually aberrant specimen of *L. nigriventris* (L.Koch) or *L. tenebricola* (Wid.). Since it seems impossible to determine the species, I consider *L. ivanovi* as nomen dubium.

4. *Lepthyphantes melanopleuros* (Grube, 1861) was described from Siberia as *Linyphia melanopleuros* Grube, 1861. Later Simon transferred this species to *Lepthyphantes* [Simon, 1884]. The type of *Linyphia melanopleuros* apparently lost, and the absence of pictures in the original description make the species indentification impossible. Therefore I consider *Lepthyphantes melanopleuros* as nomen dubium.

5. *Perro* Tanasevitch nomen novum pro *Pero* Tanasevitch, 1985, praeocc.: *Pero* Herrich-Schaeffer, 1885 (Lepidoptera, Geomeridae). Genus *Perro* consists of four species: *P. subtilipes* (Tan., 1985), comb.n. (type species), *P. putoranica* (Esk., 1986), comb.n., *P. polaris*

(Esk., 1986), comb.n., *P. camtschadalica* (Kulcz., 1885), comb.n.

6. *Perregrinus* nomen novum pro *Peregrinus* Tanasevitch, 1982, praeocc.: *Peregrinus* Kirkaldy, 1904 (Homoptera). The genus contains only one species - *Perregrinus deformis* (Tanasevitch, 1982), comb.n.

7. *Diplocephalus montaneus* Tanasevitch, nomen novum pro *Diplocephalus montanus* Tanasevitch, 1989, praeocc.: *Diplocephalus montanus* Eskov, 1988.

ACKNOWLEDGEMENTS. I am deeply indebted to all person whose materials served the base of this paper: Drs. B.P. Zakharov, L.A. Nesov and Mr. A.M. Basarukin, as well as Drs. N. Platnick, G. Hormiga, K.Y. Eskov and P.M. Dunin informed me of homonymy two of my taxa.

References

Eskov K.Y. 1988. Aranei of Central Siberia//Materialy po faune Tsentralnoy Sibiri i prilezhashchikh rayonov Mongolii. Moscow. P. 101-155 [in Russian].

Grube E. 1861. Beschreibungen neuer, von den Herren L.v. Schrenk, Maack, C. v. Ditmar u.a. im Amurlande und in Ostsiberien gesammelter Araneiden.//Bull. Acad. Imp. Sci. St.-Petersbourg. Vol.4. P.161-180.

Hu J.L., Wu W.G. 1989. Spiders from agricultural egions of Xinjiang Uygur Autonomous egion, China. Arachnida: Araneae. Shandong Univ. Publ. House. 435 p.

Paik K.Y. 1985. A new species of the genus *Lepthyphantes* Menge, 1866 (Araneae:Linyphiidae,Erigonae) from Korea.//Korean Arachnol. Vol.1. No.2. P.7-12 [in Korean].

Pakhorukov N.M. 1981.[To the study of the spider fam. Linyphiidae of the USSR forest zone]// Fauna i ekologia nasekomykh. Perm: Perm State Univ., P.71-85 [in Russian].

Saito H. 1983. Notes on linyphiine and erigonine spiders (Linyphiindae) from Hokkaido, Japan.//Insect (Utsunomiya). Vol.34. P.50-60 [in Japanese].

Saito S. 1934. Spiders from Hokkaido//J. Fac. Agr., Hokkaido Imp. Univ. Sapporo. Vol.33. P.267-362 [in Japanese].

Simon E. 1884. Les Arachnides de France. Paris. T.5. Fasc. 2-3. P.180-808.

Tanasevitch A.V. 1987. The spider genus *Lepthyphantes* Menge 1866 in Nepal (Arachnida: Aranei: Linyphiidae)//Courier Forsch.-Inst. Senckenberg. Bd.93. S.43-64.

Tanasevitch A.V. 1987a. New species of *Lepthyphantes* Menge, 1866 from the Soviet Far East, with notes on the Siberian fauna of this genus//Spixiana. Bd.10. H.3. S.335-343.

Tanasevitch A.V. 1988. Some new *Lepthyphantes* Menge (Aranei, Linyphiidae) from Mongolia and the Soviet Far East//Folia Ent. Hungar. T.49. P.185-196.

Tanasevitch A.V. 1990. Zoogeography of the genus *Lepthyphantes* in the USSR (Araneae,Linyphiidae).//Acta Zool. Fennica. No.190. P. 357-362.

Tanasevitch A.V, Eskov K.Y. 1987. [Spiders of the genus *Lepthyphantes* (Aranei, Linyphiidae) in the fauna of Siberia and Soviet Far East]//Zool. Zh. Vol.66. No.2. P.185-197 [in Russian].

Thaler K. 1987. Uber einige Linyphiidae aus Kashmir (Arachnida: Araneae)//Courier Forsch.-Inst. Senckenberg. Bd.93. P.33-42.

Yaginuma T. 1956. A new species of marine spider *Desis* from Japan//Publ. Seto mar. biol. Lab. Vol.5. P.363-366 [in Japanese].

Yaginuma T. 1961. Spiders from the Tokara Islands// Bull. Osaka Mus. nat. Hist. Vol.13. P.81-86 [in Japanese].

Yaginuma T. 1977. A list of Japanese spiders (revised in 1977)// Acta arachnol. Vol.27 (special number). P.367-406 [in Japanese].