

A new micronetid spider genus from the Oriental Region (Aranei: Linyphiidae: Micronetinae)

Новый род пауков подсемейства Micronetinae из Ориентальной области (Aranei: Linyphiidae: Micronetinae)

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КЛЮЧЕВЫЕ СЛОВА: пауки, Linyphiidae, Micronetinae, *Indophantes* gen.n., новый род, новые виды, систематика, Ориентальная обл., Палеарктическая обл., горы.

ABSTRACT: A new micronetid genus *Indophantes* gen.n. (type species: *I. kalimantanus* sp.n.) is described from the Oriental Region. The genus belongs to the *Bolyphantes–Poecilonea* clade and at the present consists of eight species; seven of them are Oriental: *Indophantes kalimantanus* sp.n., *I. lehtineni* sp.n., and *I. kinabalu* sp.n. from Borneo, *I. sumatera* sp.n. and *I. barat* sp.n. from Sumatra, *I. pallidus* sp.n. and *I. bengalensis* sp.n. from India, while one species is Palaearctic, i.e. *I. digitulus* (Thaler, 1987) comb.n. (ex *Lepthyphantes* Menge, 1866). The new genus seems to be distributed only in mountains.

РЕЗЮМЕ: Новый род пауков *Indophantes* gen.n. подсемейства Micronetinae (типовой вид: *I. kalimantanus* sp.n.) описан из Ориентальной области. Род входит в кладу *Bolyphantes–Poecilonea* и на сегодняшний день насчитывает восемь видов, семь из которых ориентальные: *Indophantes kalimantanus* sp.n., *I. lehtineni* sp.n., и *I. kinabalu* sp.n. с о-ва Борнео, *I. sumatera* sp.n. и *I. barat* sp.n. с о-ва Суматра, *I. pallidus* sp.n. и *I. bengalensis* sp.n. из Индии; и один вид известен из Палеарктической обл. — *I. digitulus* (Thaler, 1987) comb.n. (ex *Lepthyphantes* Menge, 1866).

Introduction

The Linyphiidae is a large family consisting of some 4200 species. Of its six subfamilies the Micronetinae with its 1100 species is second largest, surpassed by the Erigoninae with its 2100 species. Distribution of micronetids is predominately Holarctic; with about 830 species in the Palaearctic and some 120 species in the Nearctic Region. Of the other main geographical regions, the Oriental Region is, except Antarctica, the

most poorly represented by micronetids. Until now only seven true micronetids have been recorded from there, viz. *Helsdingenia ceylonica* (van Helsdingen, 1985) from Sri Lanka, *Metalepthyphantes kraepelini* (Simon, 1905) from Java, *Nesioneta benoiti* (van Helsdingen, 1978) from Sri Lanka, Indonesia, and Seychelles, *Nesioneta sola* (Millidge et Russell-Smith, 1992) from Sulawesi, *Parameioneta spicata* Locket, 1982 from Malaysia, *Tapinopa vara* Locket, 1982 from Western Malaysia, and *Theoa tricaudata* (Locket, 1982) from Malaysia and Seychelles.

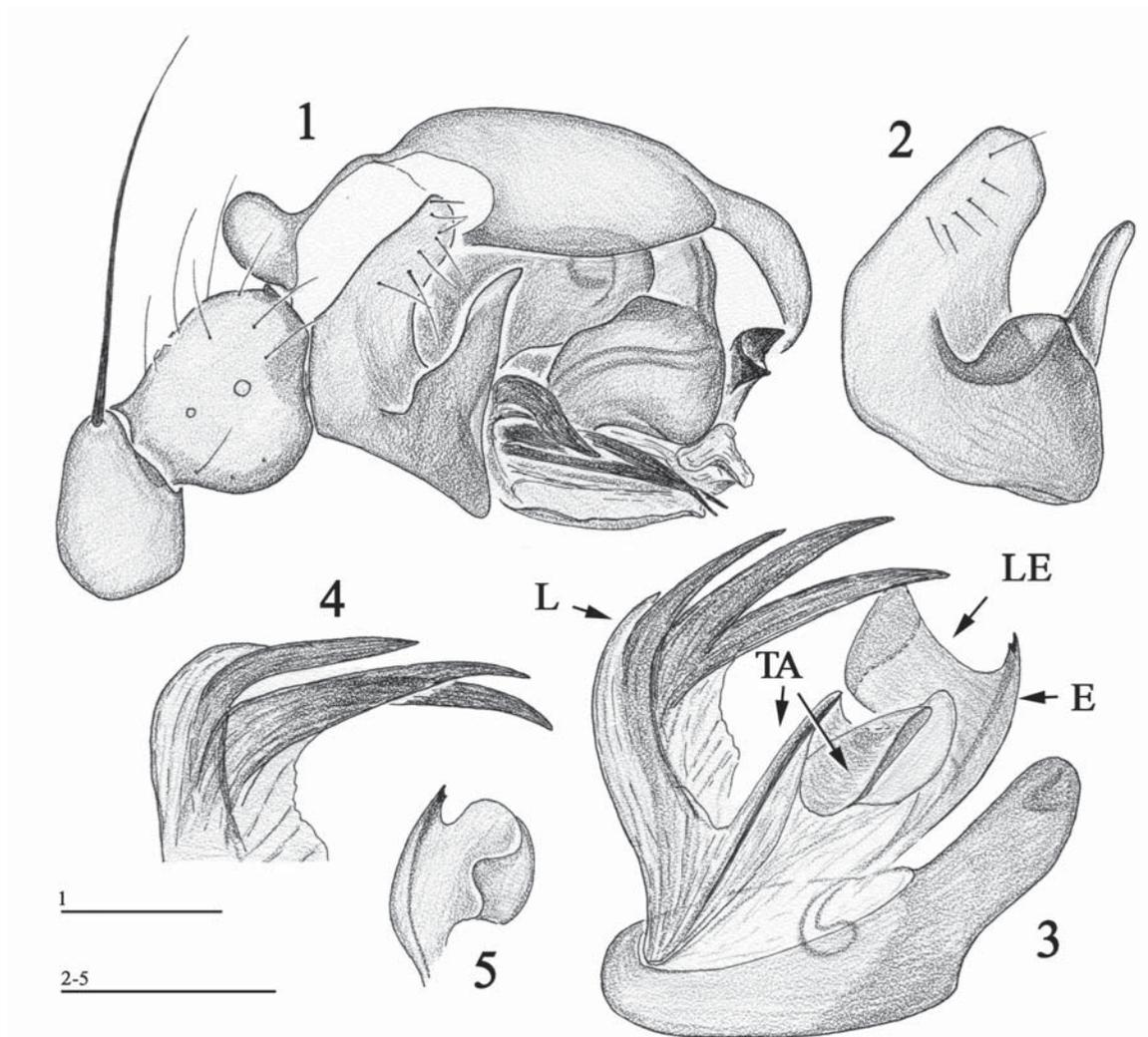
This paper describes a new micronetid genus from the Oriental Region. It includes eight species, of which seven are new to science. The number of micronetids known from the Oriental Region is herewith raised to 15, which is more than twice as many as were previously known.

The material of this study was collected by the emeritus curator Pekka T. Lehtinen (Turku, Finland), and Prof. Johan Martens (Mainz, Germany) & Dr. Wolfgang Schawaller (Stuttgart, Germany).

Abbreviations

MZT — Museum of Zoology, Turku University
SMF — Senckenberg Museum, Frankfurt am Main
E — embolus
L — lamella characteristica
LA — lateral arm of posterior median plate
LE — lateral extension of embolus
LL — lateral lobes
P — posterior median plate
PPS — proximal part of scape
PS — pseudoscape
St — stretcher
PMP — posterior median plate
Tm I — position of the metatarsal trichobothrium.

The chaetotaxy is given in the following formula: Ti I: 2-1-1-2(1). This stands for: tibia I has two dorsal, one pro- and



Figs. 1–5. *Indophantes kalimantanus* sp.n., ♂ paratype: 1 — right palp, retrolateral view, 2 — paracymbium, retrolateral view, 3 — embolic division, ventral view, 4 — lamella characteristica, ventrolateral view, 5 — embolus, dorsal view. (Scale bars: 0.1 mm).

Рис. 1–5. *Indophantes kalimantanus* sp.n., ♂ паратип: 1 — правая пальпа, ретролатерально, 2 — парацимбиум, ретролатерально, 3 — эмболюсный отдел, вентрально, 4 — ламелла, вентролатерально, 5 — эмболюс, дорзально. (Масштаб 0,1 мм).

one retro-lateral spine, and two or one ventral spines (the apical spines are herewith disregarded). The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are in mm.

Descriptions of new taxa

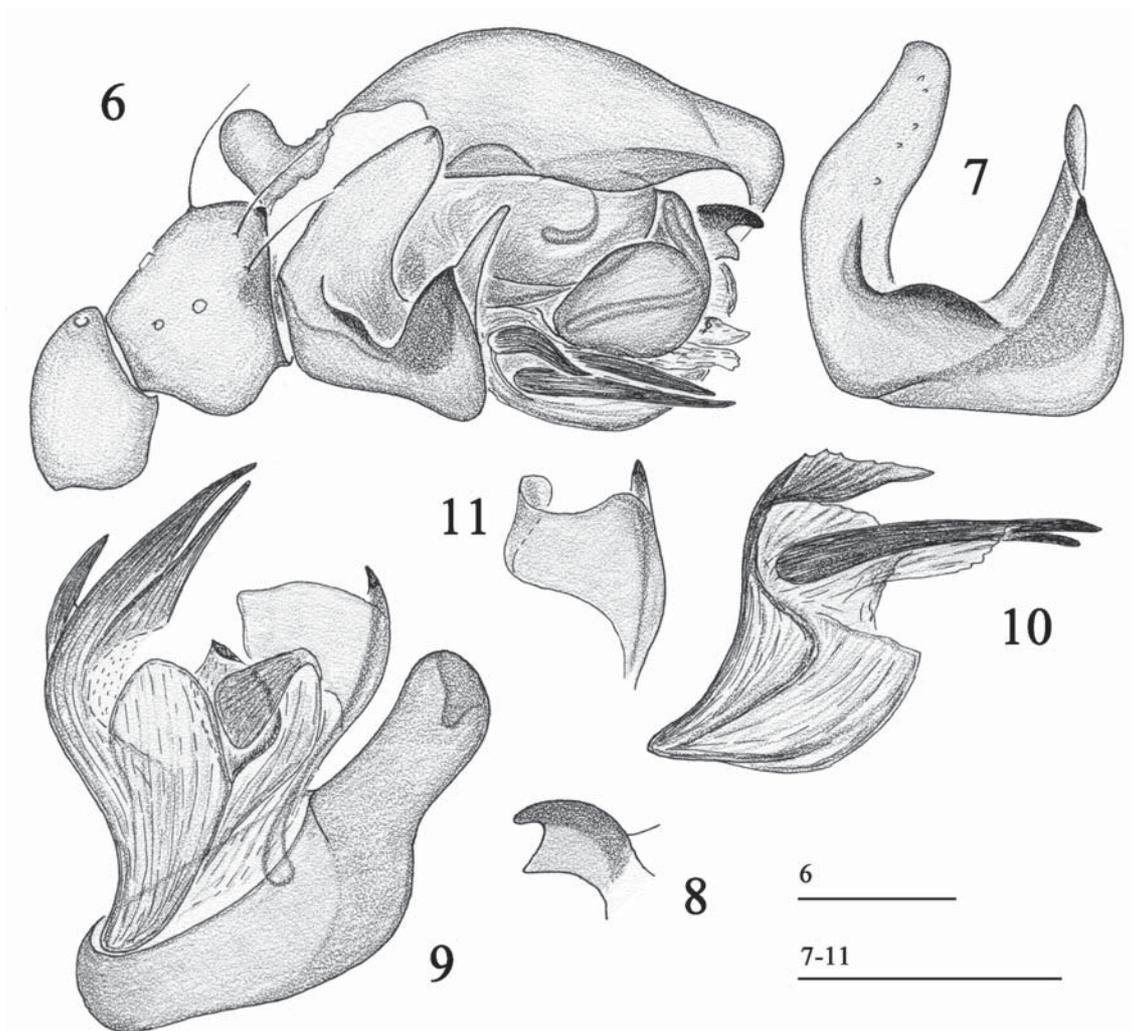
Indophantes gen.n.

TYPE SPECIES. *Indophantes kalimantanus* sp.n., Mt. Kinabalu, Malaysian Borneo.

DESCRIPTION. Small to medium-sized (2.00–3.05 mm), relatively pale-colored micronetids. Abdomen with a complicated dorsal color pattern, ventrally dark. Chaetotaxy: All metatarsi with a dorsal spine, tibiae with a ventral spine(s). Tm I: 0.15–0.33. Male palp: Cymbium with a more or less pronounced, horn-like posterodorsal outgrowth. Embolus with large, curved, flap-like lateral extension. Terminal apophysis well developed. Lamella characteristica large

with at least two sharply pointed branches. The epigyne of the female furnished with a pseudoscape. Stretcher more or less fused with the apical part of the scape. Bursa copulatrix inside lateral pockets. Median plate well developed with strong lateral arms filling most of the epigyneal cavity on either sides of the scape.

DIFFERENTIAL DIAGNOSIS. *Indophantes* is a typical member of the *Bolyphantes-Poecilonea* clade [see Saaristo & Tanasevitch, 2000: 256]. Monophyly of this clade is supported by two synapomorphies derived from the morphology of the male palpal organ and female epigyne: (1) embolus mitten shaped (Fig. 5) and (2) female epigyne with pseudoscape (Fig. 33). Besides the new genus erected in this paper the *Bolyphantes-Poecilonea* clade consists of the following genera: *Abiskoa* Saaristo et Tanasevitch, 2000, *Acanthoneta* Eskov et Marusik, 1992, *Agyphantes* Hull, 1932, *Bolephthiphantes* Strand, 1901, *Bolyphantes* C.L. Koch, 1833, *Canariphantes* Wunderlich, 1992, *Cornicephalus* Saaristo et Wunderlich, 1995, *Crispiphantes* Tanasevitch, 1992, *Drapetisca* Menge, 1866, *Eldonia* Tanasevitch, 1996, *Hels-*



Figs. 6–11. *Indophantes lehtineni* sp.n., ♂ paratype: 6 — right palp, retrolateral view, 7 — paracymbium, retrolateral view, 8 — pit hook, prolateral view, 9 — embolic division, ventral view, 10 — lamella characteristica, 11 — embolus, ventral view. (Scale bars: 0.1 mm).

Рис. 6–11. *Indophantes lehtineni* sp.n., ♂ паратип: 6 — правая палпа, ретролатерально, 7 — парацимбиум, ретролатерально, 8 — pit hook, пролатерально, 9 — эмболюсный отдел, вентрально, 10 — ламелла, 11 — эмболюс, вентрально. (Масштаб 0,1 мм).

dingenia Saaristo et Tanasevitch, 2003, *Herbiphantes* Tanasevitch, 1992, *Himalaphantes* Tanasevitch, 1992, *Incestophantes* Tanasevitch, 1992, *Obscuriphantes* Saaristo et Tanasevitch, 2000, *Poecilonea* Kulczyński, 1894, and *Tchatkalophantes* Tanasevitch, 2001.

Monophyly of *Indophantes* is supported by the presence of strong lateral arms on the median plate filling most of the epigynal cavity on either sides of the scape.

DERIVATIO NOMINIS. The generic name is derived from the term “Indo-Malayan Region”, which is the old name for the Oriental Region, the main distribution area of the new genus, and from the generic name *Bolyphantes* Menge, 1833.

SPECIES INCLUDED. *I. kalimantanus*, *I. lehtineni*, *I. kinabalu*, *I. sumatera*, *I. barat*, *I. pallidus*, *I. bengalensis*, all spp.n., and *I. digitulus* (Thaler, 1987) comb.n. (ex *Lephyphantes* Menge, 1866).

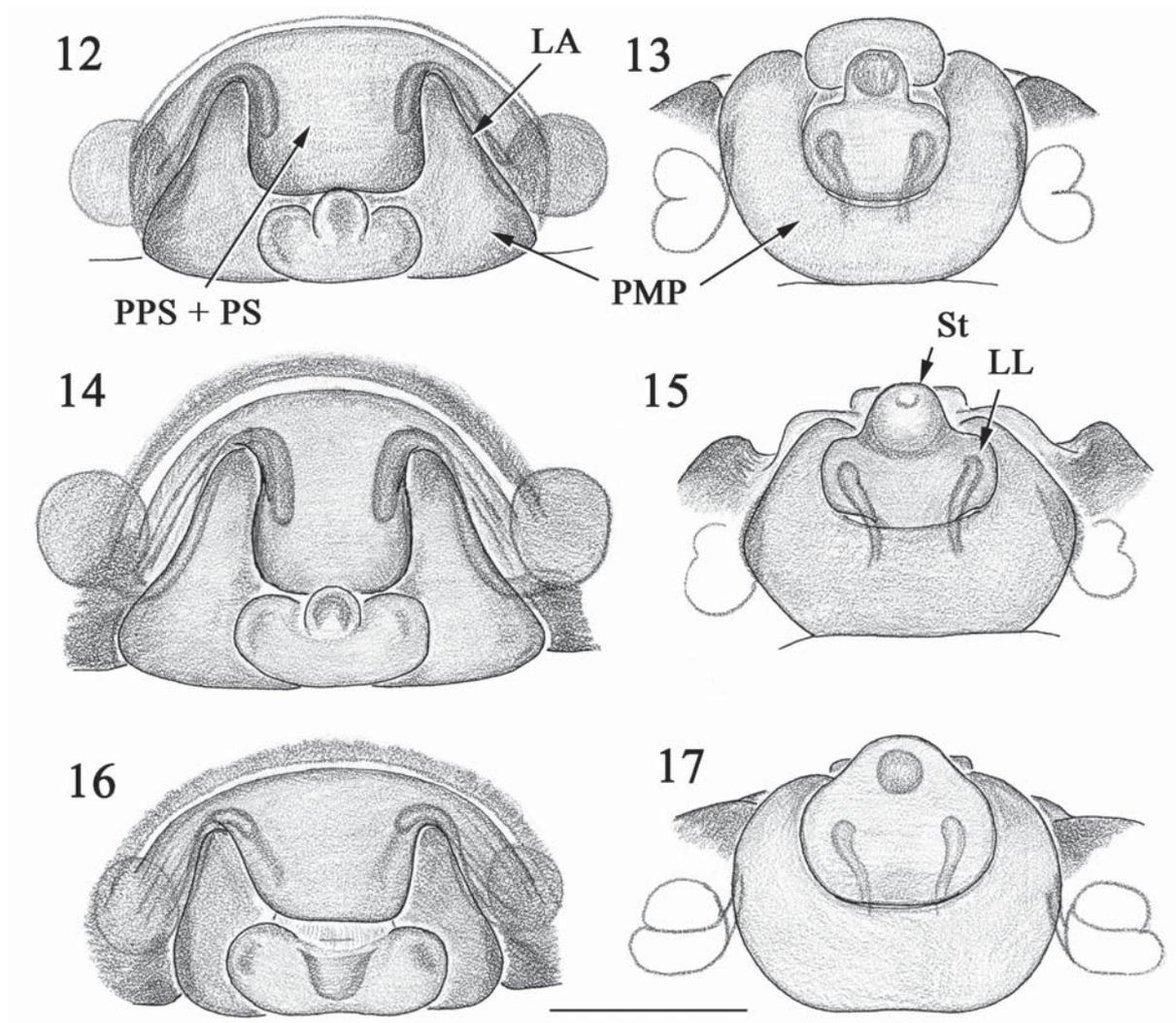
DISTRIBUTION. The genus is distributed in the mountains of the Oriental Region: India, Sumatra, Borneo; and in Palaearctic: Nepal Himalayas and Kashmir (see Fig. 56).

Indophantes kalimantanus sp.n.

Figs. 1–5, 12–13, 18–19.

DESCRIPTION. Male. Total length 2.45. Carapace 1.10 long, 0.80 wide; pale brown, with a dark median stripe and narrow dark margin. Chelicerae 0.53 long; stridulatory ridges well developed. Legs pale brown, segments with a dark median band and dark ends. Length of leg I: 4.42 (1.15 + 0.33 + 1.08 + 1.08 + 0.78) and IV: 4.49 (1.18 + 0.33 + 1.10 + 1.13 + 0.75). Chaetotaxy: Ti I: 2-1-1-3, II–IV: 2-1-1-1; Mt I–IV: 1-0-0-0. Tm I: 0.26. Abdomen 1.40 long, 0.85 wide; dorsal pattern variable, but main arrangement as in Figs. 18–19. Palp as in Figs. 1–5.

Female. Total length 2.75. Carapace 1.18 long, 0.88 wide. Chelicerae 0.53 long. Length of leg I: 4.36 (1.15 + 0.38 + 1.05 + 1.03 + 0.75) and IV: 4.56 (1.20 + 0.35 + 1.15 + 1.13 + 0.73). Tm I: 0.32–0.33. Abdomen 1.78 long, 1.15 wide. Body and leg coloration, chaetotaxy as in male. Epigyne as in Figs. 12–13.



Figs. 12–17. Epigyne of *Indophantes kalimantanus* sp.n., ♀ paratype (12–13), *I. lehtineni* sp.n., ♀ paratype (14–15) and *I. sumatera* sp.n., ♀ paratype (16–17): 12, 14, 16 — ventral view. 13, 15, 17 — dorsal view. (Scale bar: 0.1 mm).

Рис. 12–17. Эпигина *Indophantes kalimantanus* sp.n., ♀ паратип (12–13), *I. lehtineni* sp.n., ♀ паратип (14–15) и *I. sumatera* sp.n., ♀ паратип (16–17): 12, 14, 16 — вентрально, 13, 15, 17 — дорзально. (Масштаб 0,1 мм).

DIFFERENTIAL DIAGNOSIS. The species is close to *I. lehtineni* sp.n. but the male of *I. kalimantanus* sp.n. can be recognized by the longer branches of the lamella characteristic, and the female by having the area composed of the proximal part of scape and pseudoscape wider than long. Also the position of metatarsal trichobothrium seems to be diagnostic; male of *I. kalimantanus* sp.n. has Tm I : 0.25–0.27 and female 0.32–0.33, while both sexes of *I. lehtineni* sp.n. have Tm I : 0.22–0.23.

DERIVATIO NOMINIS. The specific name refers to the old name of the Borneo Island, viz. Kalimantan.

MATERIAL. Holotype ♂, MALAYSIAN BORNEO, Sabah, Tuaran Distr., Mt. Kinabalu N.P., Panar Laban, Lipsan's Trig, cloud forest, 3150–3400 m, 9.xi.1976, P.T. Lehtinen leg. (MZT AM 1.234A). — Paratypes 4 ♂♂, 8 ♀♀ with same data as in holotype (MZT AM 1.234B); 3 ♂♂, 2 ♀♀, Mt. Kinabalu N.P., Panar Laban, Lipsan's Trig, cloud forest, 3150–3400 m, 9.XI.1976 (MZT AM 1.233); 3 ♂♂, 8 ♀♀, Mt. Kinabalu N.P., Panar Laban, upper forest limit, 3450–3650 m, 8.XI.1976 (MZT AM 1.235); 1 ♀, Mt. Kinabalu N.P., Panar Laban, upper forest limit, 3450–3650 m,

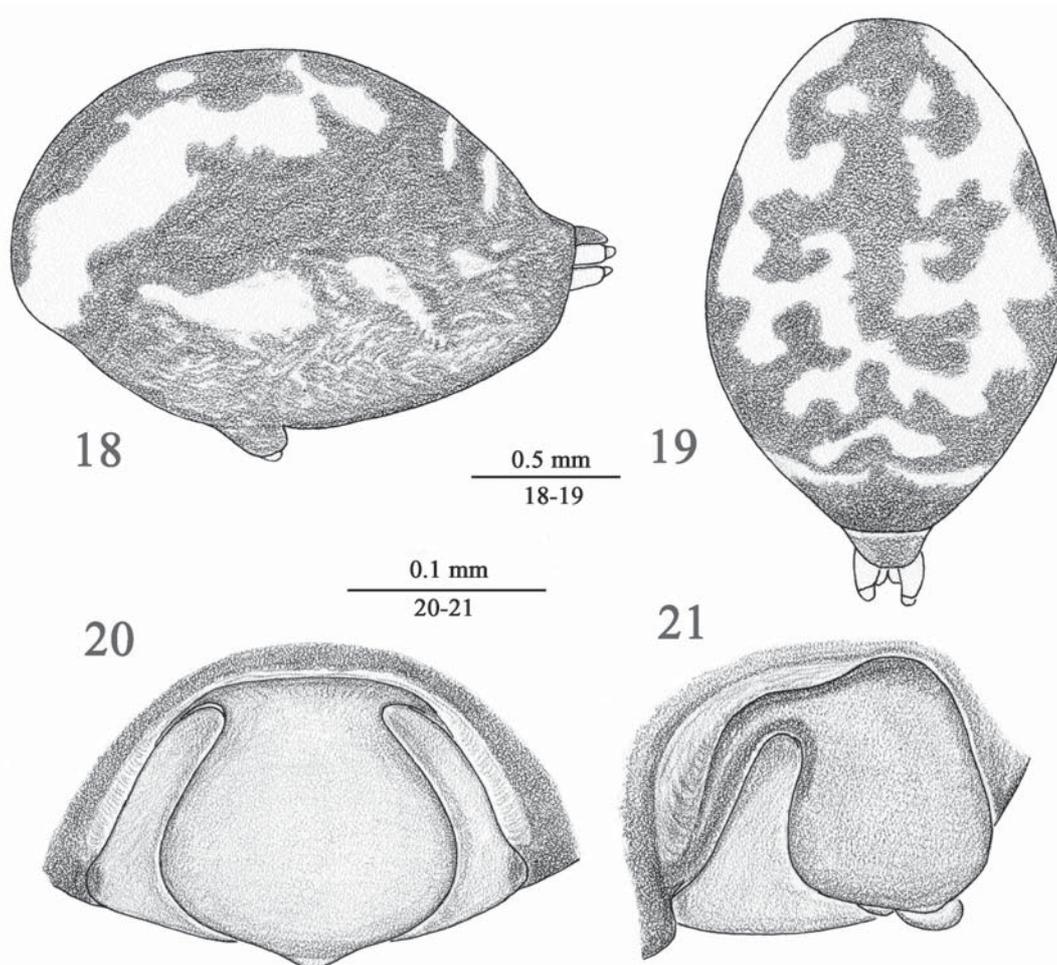
8.XI.1976 (MZT AM 1.236); 2 ♂♂, Tuaran Distr., Mt. Kinabalu N.P., Sayat Sayat, base of summit, 3750–4050 m, rock, 8.XI.1976 (MZT AM 1.237); 1 ♀, Tuaran Distr., Mt. Kinabalu N.P., Sayat Sayat, 3850 m, small stone bed, 8.XI.1976 (MZT AM 1.238); all P.T. Lehtinen leg.

DISTRIBUTION. High altitudes in mountains (3150–4050 m) in north-eastern part of Malaysian Borneo (see Fig. 56).

Indophantes lehtineni sp.n.

Figs. 6–11, 14–15.

DESCRIPTION: Male. Total length 1.93. Carapace 0.90 long, 0.65 wide; pale brown, with a dark narrow margin. Chelicerae 0.33 long; stridular ridges well visible. Legs pale brown. Length of leg I: 3.95 (1.00 + 0.30 + 1.00 + 0.90 + 0.75) and IV: 3.61 (0.93 + 0.28 + 0.90 + 0.85 + 0.65). Chaetotaxy: spines lost (see female description). Tm I : 0.22. Palp as in Figs. 6–11. Abdomen 1.13 long, 0.75 wide, dorsally pale in anterior half, with grey transverse stripes in posterior half.



Figs. 18–21. Abdomen of *Indophantes kalimantanus* sp.n., ♀ paratype (18–19) and epigyne of *I. kinabalu* sp.n., ♀ holotype (20–21): 18 — lateral view, 19 — dorsal view, 20 — ventral view, 21 — pro-lateral-ventral view.

Рис. 18–21. Абдомен *Indophantes kalimantanus* sp.n., ♀ паратип (18–19) и эпигина *I. kinabalu* sp.n., ♀ голотип (20–21): 18 — латерально, 19 — дорзально, 20 — вентрально, 21 — пролатерально-вентрально.

Female. Total length 2.65. Carapace 1.13 long, 0.85 wide. Chelicerae 0.38 long. Length of leg I: 4.45 (1.15 + 0.35 + 1.15 + 1.00 + 0.80) and IV: 4.11 (1.10 + 0.30 + 1.05 + 0.93 + 0.73). Chaetotaxy: Ti I–II: 2-1-1-2(1), III–IV: 2-?-?-1; Mt I–IV: 1-0-0-0. Tm I: 0.23. Body and leg coloration as in male. Epigyne as in Figs. 14–15.

DIFFERENTIAL DIAGNOSIS. See above *I. kalimantanus* sp.n.

DERIVATIO NOMINIS. Named for its collector, the well-known Finnish arachnologist Dr. Pekka T. Lehtinen (Turku, Finland).

MATERIAL. Holotype ♂, MALAYSIAN BORNEO, Sabah, Tuaran Distr., Mt. Kinabalu N.P., Carsons Camp, 2000–2800 m, meadow, 7.XI.1976, P.T. Lehtinen leg. (MZT AM 1.244A). — Paratypes: 11 ♀♀ with same data as for the holotype (MZT AM 1.244B).

DISTRIBUTION. Known only from type locality, Malaysian Borneo (see Fig. 56).

Indophantes kinabalu sp.n.
Figs. 20–21.

DESCRIPTION. Female (male unknown). Total length 2.20. Carapace 0.95 long, 0.73 wide, pale brown. Chelicerae

0.43 long. Legs pale brown. Length of leg I: 4.14 (1.13 + 0.28 + 1.05 + 1.00 + 0.68), IV: ? Chaetotaxy: spines mostly lost. Tm I: 0.15. Abdomen 1.45 long, 1.00 wide; dorsally grey with transverse pale stripes. Epigyne as in Figs. 20–21.

DIFFERENTIAL DIAGNOSIS. *I. kinabalu* sp.n. is easily recognized from all other *Indophantes* species by the large, rounded pseudoscape covering the rest of the scape except the tip of the stretcher.

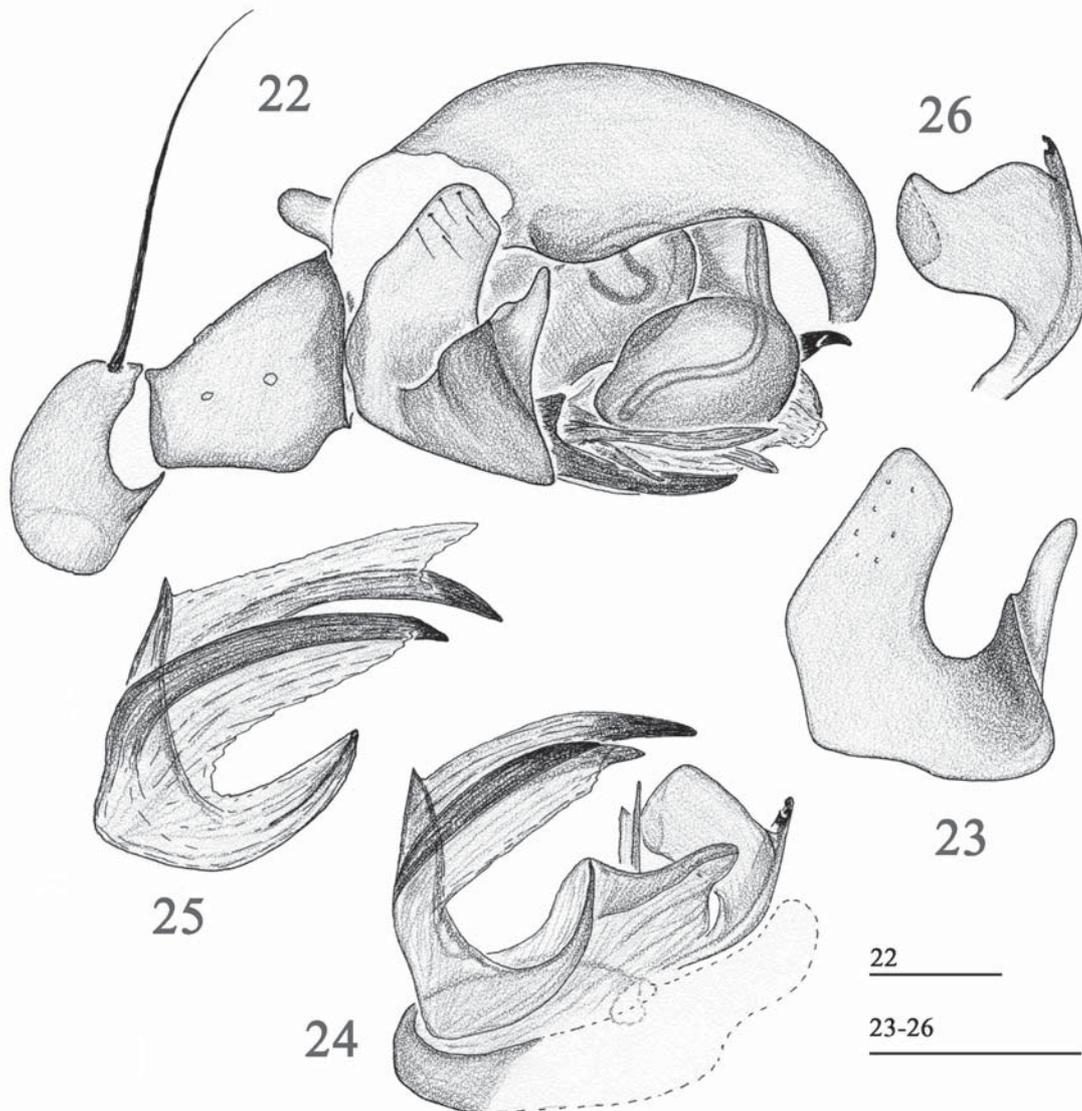
DERIVATIO NOMINIS. The specific name is a noun in apposition taken from the type locality.

MATERIAL. Holotype ♀, MALAYSIAN BORNEO, Sabah, Tuaran Distr., Mt. Kinabalu N.P., Power Station, Layang Layang, cloud forest, 2000–2800 m, 7.XI.1976, P.T. Lehtinen leg. (MZT AM 1.247).

DISTRIBUTION. Known only from type locality, Malaysian Borneo (see Fig. 56).

Indophantes sumatera sp.n.
Figs. 16–17, 22–26.

DESCRIPTION: Male. Total length 2.03. Carapace 1.05 long, 0.80 wide; pale brown, with a dark narrow margin. Chelicerae 0.40 long, stridulatory ridges faintly visible. Legs



Figs. 22–26. *Indophantes sumatera* sp.n., ♂ paratype: 22 — right palp, reprodolateral view, 23 — paracymbium, reprodolateral view, 24 — embolic division, ventral view, 25 — lamella characteristic, ventrolateral view, 26 — embolus, ventral view.

Рис. 22–26. *Indophantes sumatera* sp.n., ♂ паратип: 22 — правая пальпа, ретролатерально, 23 — парацимбиум, ретролатерально, 24 — эмболюсный отдел, вентрально, 25 — ламелла, вентролатерально, 26 — эмболюс, вентрально.

pale brown. Length of leg I: 5.21 (1.30 + 0.33 + 1.33 + 1.35 + 0.90) and IV: 4.38 (1.20 + 0.30 + 1.05 + 1.13 + 0.70). Chaetotaxy: spines lost, see female description. Tm I: 0.19. Abdomen 1.30 long (deformed). Palp as in Figs. 22–26.

Female. Total length 2.75. Carapace 1.13 long, 0.88 wide, pale brown with a dark narrow margin. Legs pale brown. Length of leg I: 5.23 (1.38 + 0.35 + 1.30 + 1.30 + 0.90) and IV: 4.64 (1.28 + 0.33 + 1.13 + 1.15 + 0.75). Chaetotaxy: Ti I: 2-1-1-3, II: 2-1-1-2, III–IV: 2-1-1-1(2); Mt I–IV: 1-0-0-0. Tm I: 0.17. Epigyne as in Figs. 16–17. Abdomen 1.95 long, 1.25 wide, dorsal pattern variable, but the main arrangement as in Figs. 18–19.

DIFFERENTIAL DIAGNOSIS. *I. sumatera* sp.n. resembles *I. kalimantanus* sp.n. and *I. lehtineni* sp.n. but its male is easily recognized by having only two branches in lamella characteristic and much smaller posterodorsal outgrowth on

cymbium. Female of *I. sumatera* sp.n. differs by having more or less parallel running arms of the posteromedian plate.

DERIVATIO NOMINIS. The specific name is a noun in apposition taken from the type locality.

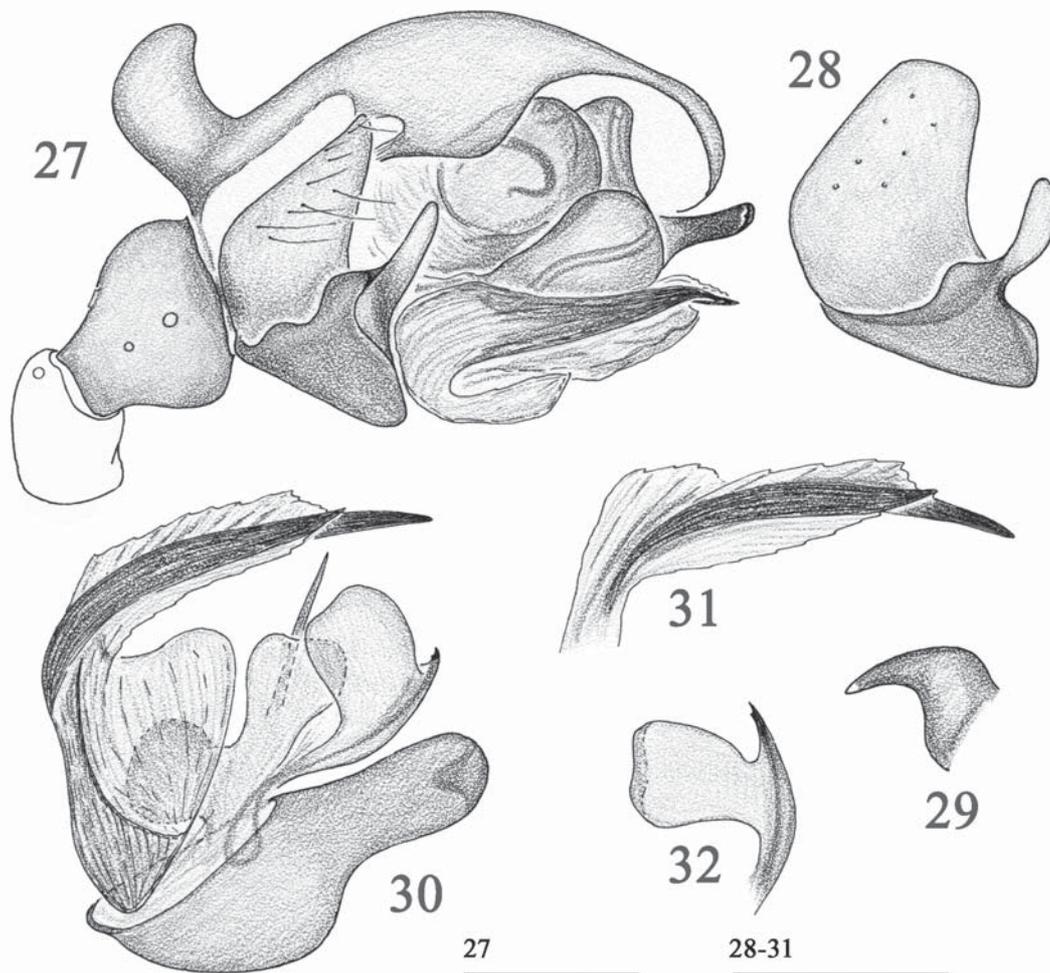
MATERIAL. Holotype ♂, INDONESIA, Sumatra, Sumatera Barat, Padangpanjang, Gunung Singalang, 2300–2800 m, cloud forest, 27.IX.1978, P.T. Lehtinen leg. (MZT AM 1.239A). — Paratypes 4 ♀♀ with the same data as for the holotype (MZT AM 1.239B).

DISTRIBUTION: Known only from the type locality, Sumatra (see Fig. 56).

Indophantes pallidus sp.n.

Figs. 27–38.

DESCRIPTION: Male. Total length 2.10. Carapace 1.00 long, 0.80 wide, pale yellow. Chelicerae 0.38 long, stridular



Figs. 27–32. *Indophantes pallidus* sp.n., ♂ paratype: 27 — right palp, retrolateral view, 28 — paracymbium, retrolateral view, 29 — pit hook, ventral view, 30 — embolic division, ventral view, 31 — lamella characteristica, ventrolateral view, 32 — embolus, ventral view.

Рис. 27–32. *Indophantes pallidus* sp.n., ♂ паратип: 27 — правая палпа, ретролатерально, 28 — парацимбиум, ретролатерально, 29 — pit hook, вентрально, 30 — эмболюсный отдел, вентрально, 31 — ламелла, вентролатерально, 32 — эмболюс, вентрально.

ridges weakly visible. Legs pale, almost white. Length of Fe I: 1.33 and Fe IV: 1.25. Chaetotaxy: spines lost, see female description. Tm I: 0.23. Abdomen 1.33 long, 0.78 wide, pale, almost white with two longitudinal rows of grey spots (Figs. 37–38). Palp as in Figs. 27–32.

Female. Total length 2.45. Carapace 1.00 long, 0.75 wide, pale yellow. Legs pale, almost white. Length of leg I: 5.22 (1.35 + 0.33 + 1.28 + 1.38 + 0.88), length of Fe IV: 1.18. Chaetotaxy: Ti I: 2-1-1-2(3), II–IV: 2-1-1-1(2); Mt I–IV: 1-0-0-0. Tm I: 0.20. Abdomen 1.75 long, 1.10 wide. Body and leg coloration as in male. Epigyne as in Figs. 33–36.

DIFFERENTIAL DIAGNOSIS. The male of *I. pallidus* sp.n. is easily distinguished from all other *Indophantes* males by the thick, apically curved posterodorsal horn on cymbium and the two pointed lamella characteristica and the female by the long, tongue-like pseudoscape. Also the pale colored body and arrangement of abdominal dorsal pattern may be diagnostic.

DERIVATIO NOMINIS. The specific name refers to the pale colored abdomen of the new species compared with the other members of the genus.

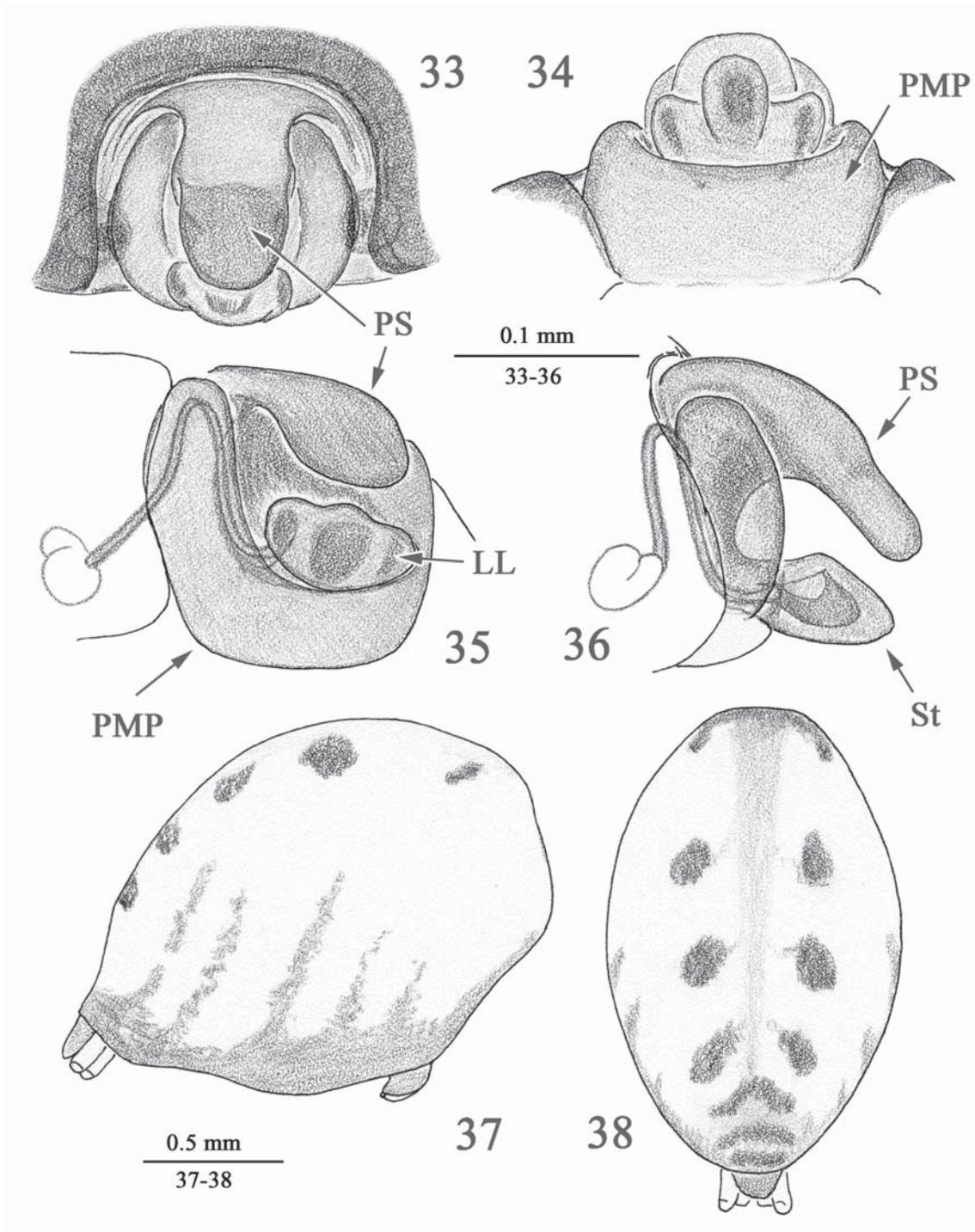
MATERIAL. Holotype ♂, INDIA, Tamil Nadu, Nilgiri, Ootacamund, 2450 m, grassy mountain slope, 22.IV.1979, P.T. Lehtinen leg. (MZT AM 1.240A). — Paratypes 3 ♂♂, 1 ♀ with the same data as for the holotype (MZT AM 1.240B and 1.241), 1 ♀, Tamil Nadu, Nilgiri, Tarapata, 2550 m, mountain forest, 22.IV.1979, P.T. Lehtinen leg. (MZT AM 1.242); 1 ♂, Tamil Nadu, Nilgiri, Doddabetta, 2700 m, on bush, 22.IV.1979, P.T. Lehtinen leg. (MZT AM 1.243).

DISTRIBUTION. India: Tamil Nadu (see Fig. 56).

Indophantes bengalensis sp.n.

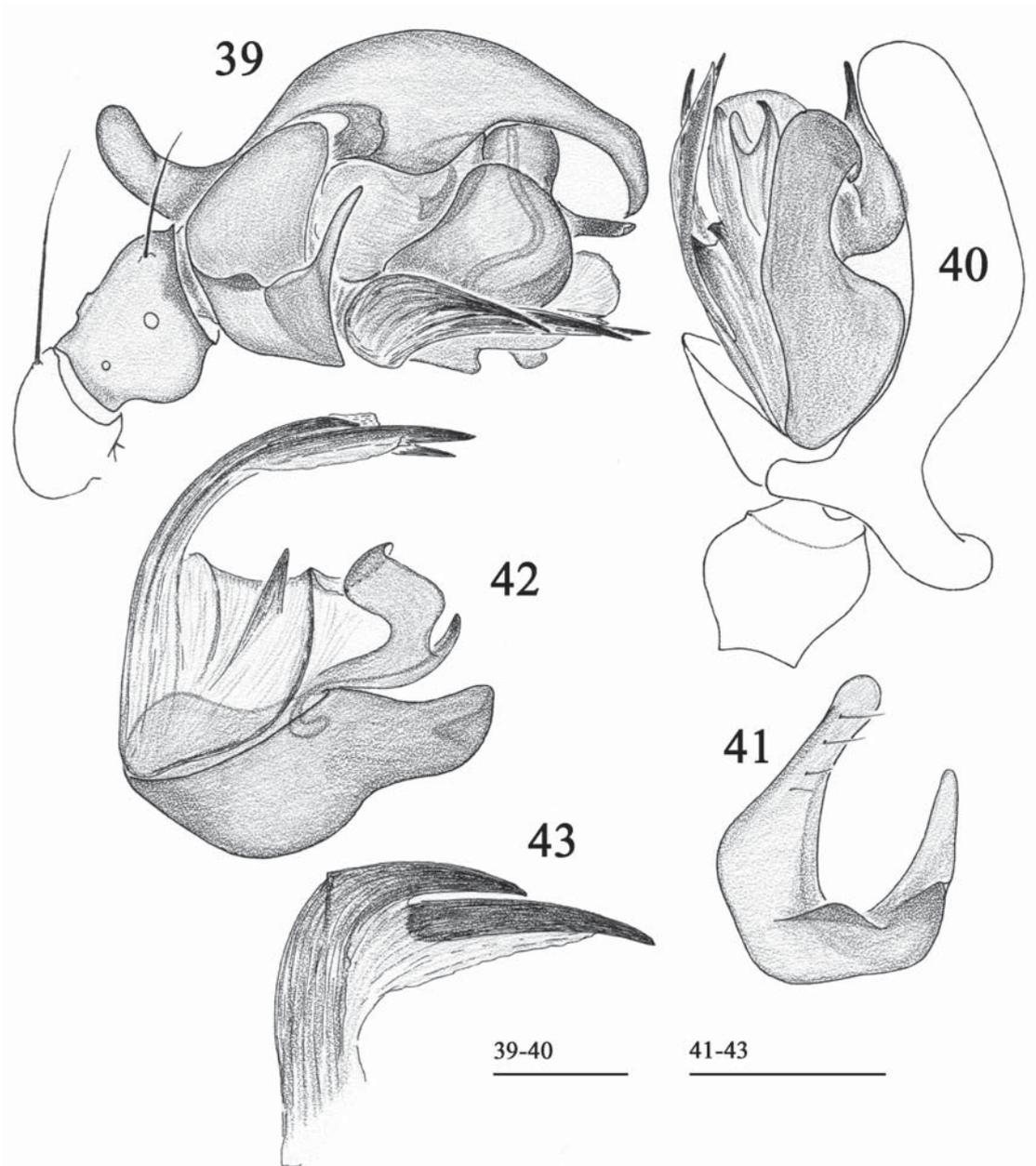
Figs. 39–48.

DESCRIPTION: Male. Total length 1.75. Carapace 0.80 long, 0.65 wide, pale brown. Chelicerae 0.38 long, stridular ridges poor visible. Legs pale brown. Length of leg I: 4.23



Figs. 33–38. Epigyne (33–36) and abdomen (37–38) of *Indophantes pallidus* sp.n., ♀ paratype: 33 — ventral view, 34, 38 — dorsal view, 35 — prolateral-dorsal view, 36, 37 — lateral view, 37 — lateral view.

Рис. 33–38. Эпигина (33–36) и abdomen (37–38) *Indophantes pallidus* sp.n., ♀ паратип: 33 — вентрально, 34, 38 — дорзально, 35 — пролатерально-дорзально, 36, 37 — латерально.



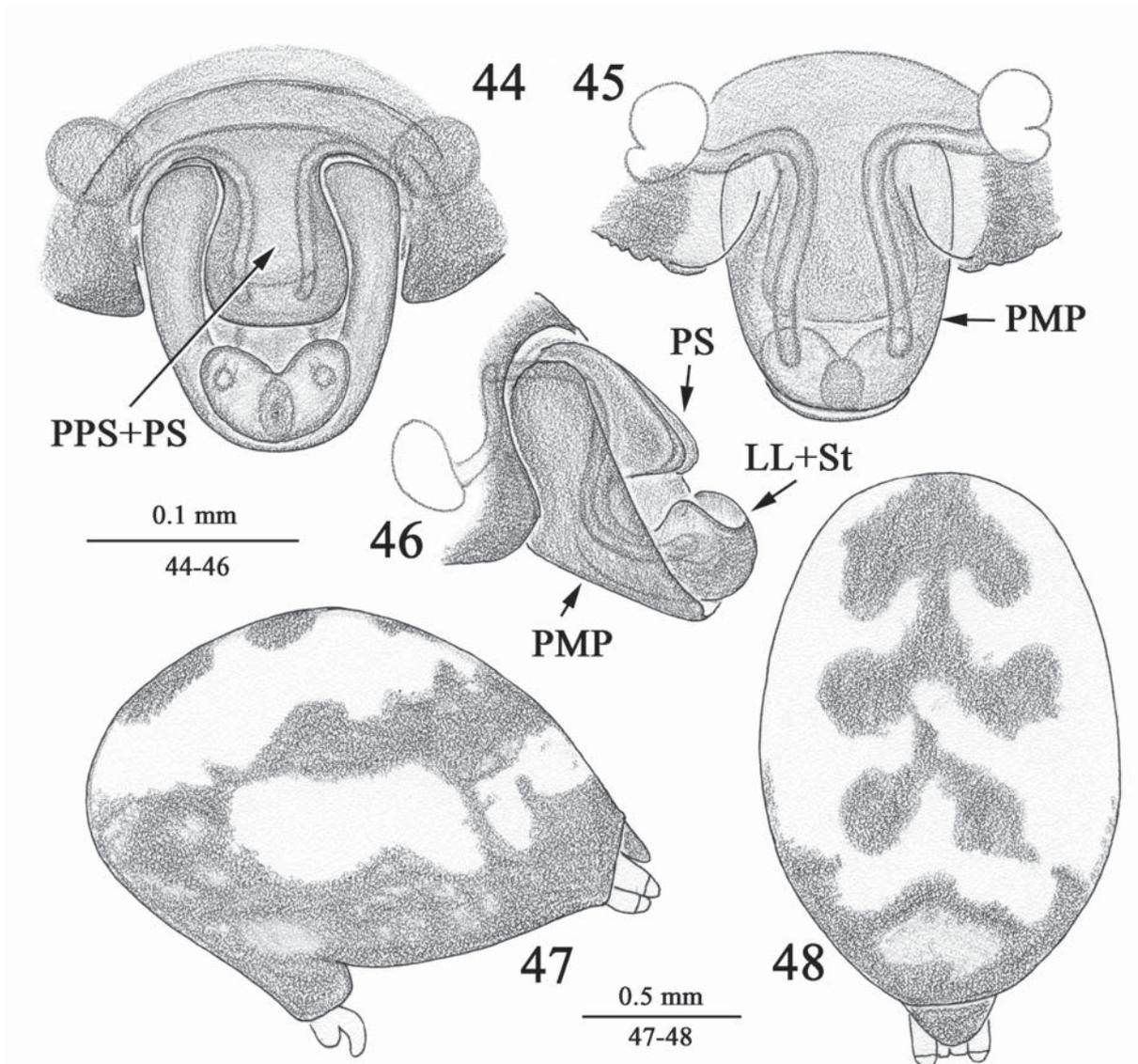
Figs. 39–43. *Indophantes bengalensis* sp.n., ♂ paratype: 39 — right palp, retrolateral view, 40 — right palp, prolateral view, 41 — paracymbium, reprodateral view, 42 — embolic division, ventral view, 43 — lamella characteristica, ventrolateral view. (Scale bars: 0.1 mm).

Рис. 39–43. *Indophantes bengalensis* sp.n., ♂ паратип: 39 — правая палпа, ретролатерально, 40 — правая палпа, пролатерально, 41 — парацимбиум, ретролатерально, 42 — эмболюсный отдел, вентрально, 43 — ламелла, вентролатерально. (Масштаб 0,1 мм).

(1.05 + 0.28 + 1.05 + 1.10 + 0.75) and IV: 3.66 (1.00 + 0.23 + 0.85 + 0.98 + 0.60). Chaetotaxy: see female description. Tm I: 0.22. Palp as in Figs. 39–43. Abdomen 1.10 long, 0.63 wide; coloration: see female description.

Female. Total length 2.38. Carapace 0.88 long, 0.70 wide, pale brown with a dark narrow margin. Length of leg I: 3.94 (1.03 + 0.30 + 0.95 + 0.98 + 0.68) and IV: 3.41 (0.95 + 0.28 + 0.80 + 0.83 + 0.55). Legs pale brown. Chaetotaxy: Ti I–II: 2-1-1-2, III–IV: 2-1-1-2(1); Mt I–IV: 1-0-0-0. Tm I — 0.23. Epigyne as in Figs. 44–46. Abdomen 1.75 long, 1.00 wide, dorsal pattern variable, but the main arrangement as in Figs. 47–48.

DIFFERENTIAL DIAGNOSIS. *I. bengalensis* sp.n. seems to be close to *I. digitulus* (Thaler, 1987) as the males of both species have long cymbial horn and trifurcate lamella characteristica and the females have more or less elongated, posteriorly protruding epigyne with reduced stretcher. The male of *I. bengalensis* sp.n. differs from that of *I. digitulus* by having evenly curved cymbial horn without sharp, apical bent and much shorter uppermost branch of lamella characteristica. The female of *I. bengalensis* sp.n. differ from that of *I. digitulus* by having the area composed of the proximal part of scape and pseudoscape longer than wide.



Figs. 44–48. Epigyne (44–46) and abdomen (47–48) of *Indophantes bengalensis* sp.n., ♀ paratype: 44 — ventral view, 45, 48 — dorsal view, 46, 47 — lateral view.

Рис. 44–48. Эпигина (44–46) и abdomen (47–48) *Indophantes bengalensis* sp.n., ♀ паратип: 44 — вентрально, 45, 48 — дорзально, 46, 47 — латерально.

DERIVATIO NOMINIS. The specific name refers to the type locality of the holotype.

MATERIAL. Holotype ♂, INDIA, West Bengal, Darjeeling, 2150 m, moist garden slope, 29–30.IV.1979, P.T. Lehtinen leg. (MZT AM 1.245A). — Paratypes 11♂♂, 15♀♀ with the same data as for the holotype (MZT AM 1.245B); 2♀♀, INDIA, Meghalaya, East Khasi Hills, Mawrang, 1500 m, pine (*Pinus*) forest with moss, ferns and *Rubus*, 5.V.1979, P.T. Lehtinen leg. (MZT AM 1.246).

DISTRIBUTION. North-Eastern India: West Bengal and East Khasi Hills (see Fig. 56).

Indophantes barat sp.n.

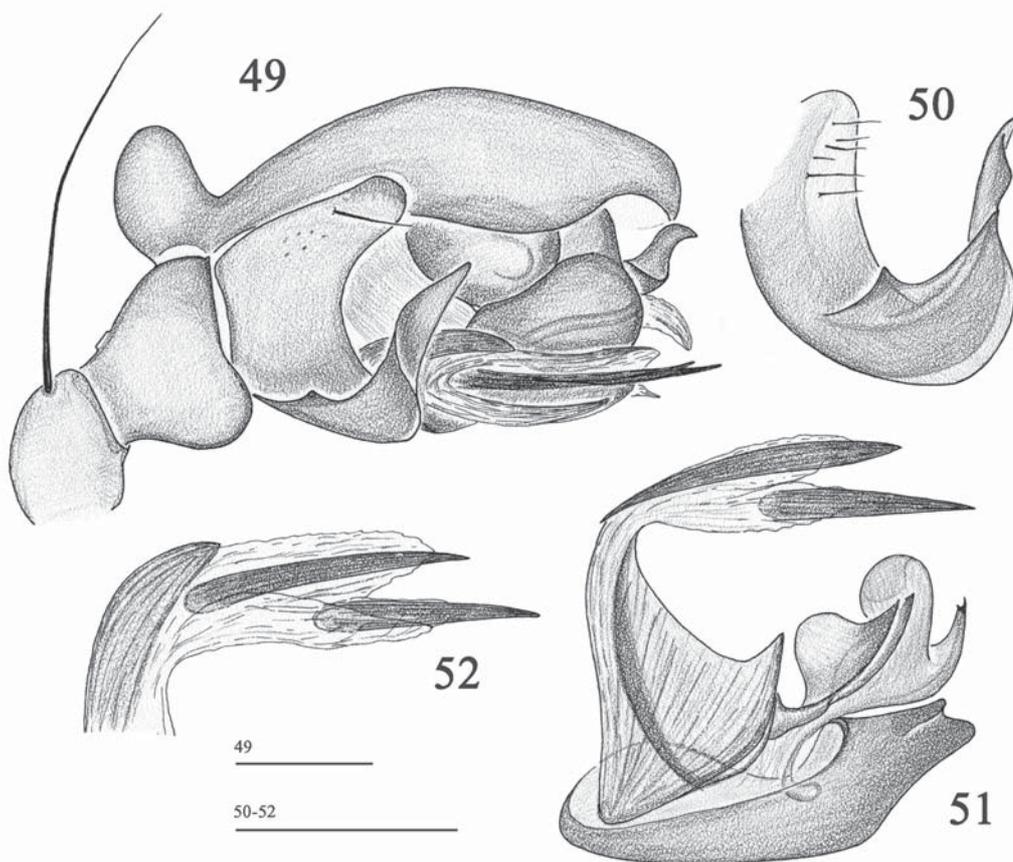
Figs. 49–55.

DESCRIPTION: Male. Total length 1.88. Carapace 0.88 long, 0.60 wide; brown. Chelicerae 0.35 long, stridulatory

ridges faintly visible. Legs pale brown. Length of leg I: 4.14 (1.03 + 0.25 + 1.08 + 1.03 + 0.75) and IV: 3.08 (1.00 + 0.20 + 0.68 + 0.70 + 0.50). Chaetotaxy: spines mainly lost, Mt IV with a dorsal spine. Tm I: 0.18. Abdomen 1.15 long, 0.53 wide, dorsal pattern similar as in Fig.48. Palp as in Figs. 49–52.

Female. Total length 2.13. Carapace 0.88 long, 0.65 wide, brown with a dark narrow margin. Legs pale brown. Length of leg I: 3.73 (1.00 + 0.25 + 0.93 + 0.90 + 0.65) and IV: ? Spines mainly lost, Mt IV with a dorsal spine. Tm I: 0.21. Epigyne as in Figs. 53–55. Abdomen 1.40 long, 0.85 wide, dorsal pattern similar as in Fig. 48.

DIFFERENTIAL DIAGNOSIS. *I. barat* sp.n. resembles *I. kalimantanus* sp.n. and *I. lehtineni* sp.n. but the male is easily recognized by the presence small sharp tooth on paracymbium and nervier built cymbial horn, and the female by the distinctly narrower proximal part of the scape.



Figs. 49–52. *Indophantes barat* sp.n., ♂ holotype: 49 — right palp, retrolateral view, 50 — paracymbium, reprodateral view, 51 — embolic division, ventral view, 52 — lamella characteristica, ventrolateral view. (Scale bars: 0.1 mm).

Рис. 49–52. *Indophantes barat* sp.n., ♂ голотип: 49 — правая палпа, ретролатерально, 50 — парацимбиум, ретролатерально, 51 — эмболюсный отдел, вентрально, 52 — ламелла, вентролатерально. (Масштаб 0,1 мм).

DERIVATIO NOMINIS. The specific name is a noun in apposition taken from the type locality.

MATERIAL. Holotype ♂, INDONESIA, Sumatra, Sumatera Barat, Padangpanjang, Gunung Singalang, 1800–2300 m, cloud forest, 27.IX.1978, P.T. Lehtinen leg. (MZT AM 1.248A). — Paratypes 1 ♂, 1 ♀ with the same data as for the holotype (MZT AM 1.248B).

DISTRIBUTION: Known only from the type locality, Sumatra (see Fig. 56).

Indophantes digitulus (Thaler, 1987) **comb.n.**

Lepthyphantes digitulus Thaler, 1987: 38, f. 28–35, 46–47 (D♂, ♀).
Lepthyphantes digitulus. — Tanasevitch, 1987: 49, f. 16–17 (♂, ♀).

DESCRIPTION. Well described by Thaler [1987] and Tanasevitch [1987].

DIFFERENTIAL DIAGNOSIS. See above *I. bengalensis*.

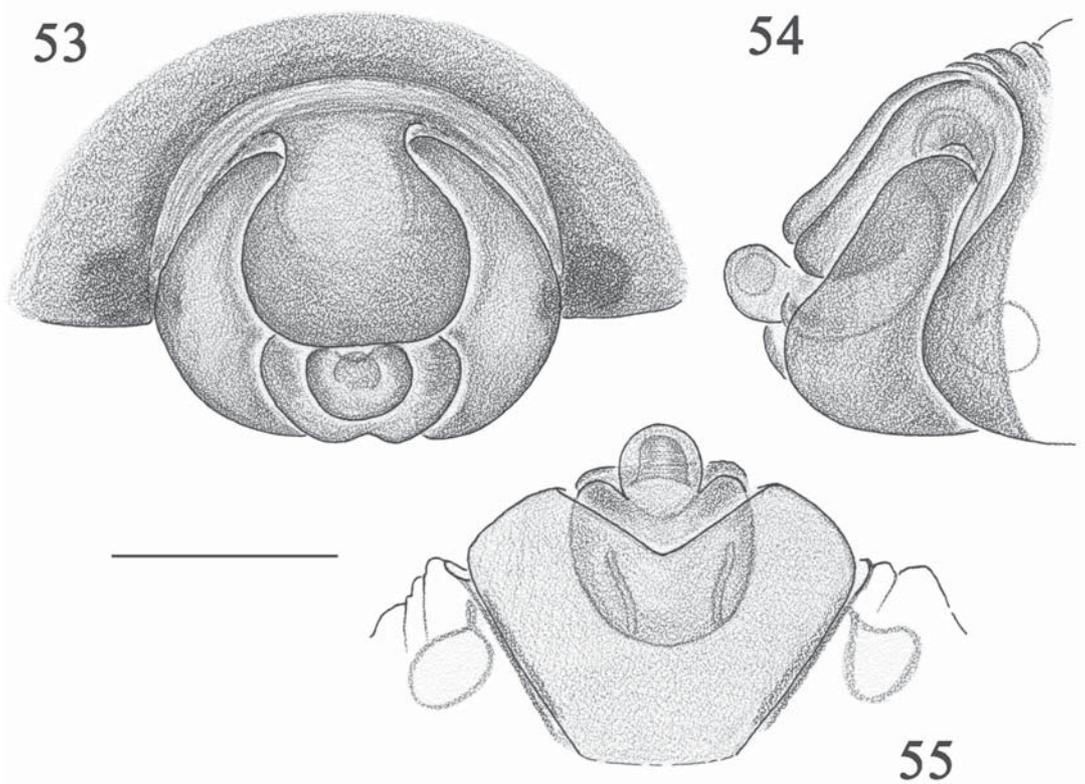
DISTRIBUTION. Kashmir [Thaler, 1987] and Nepal [Tanasevitch, 1987] (see Fig. 56).

KEY TO *INDOPHANTES* SPECIES

A. Males (male of *I. kinabalu* unknown)

- 1. Length of cymbial horn at least 2/3 of height of tibia .. 2
- Length of cymbial horn less than half of height of tibia .. 5

- 2. Length of cymbial horn ca. 3 times of its width 3
 - Length of cymbial horn ca. 1.5 times of its width 4
 - 3. Apex of cymbial horn strongly bent [Thaler, 1987: Fig. 29] *digitulus*
 - Cymbial horn smoothly curving (Fig. 39) *bengalensis*
 - 4. Paracymbium with sharp-pointed lateral tooth (Fig. 49) *barat*
 - Paracymbial tooth blunt-tipped (Fig. 27) *pallidus*
 - 5. Cymbial horn as long as wide 6
 - Cymbial horn 1.5 times longer than wide (Fig. 22) *sumatera*
 - 6. Length of longest branches of lamella characteristica ca. 20 times their largest width (Fig. 4) *kalimantanus*
 - Length of longest branches of lamella characteristica ca. 10 times their largest width (Fig. 9) *lehtineni*
- B. Females
- 1. Epigyne protruding well over epigastric furrow 2
 - Epigyne ends at the level of epigastric furrow 4
 - 2. Epigyne elongated, longer than wide (Fig. 44) *bengalensis*
 - Epigyne not elongated, approximately as long as wide ... 3
 - 3. Epigyne distinctly narrowing posteriorly [Thaler, 1987: Fig.46] *digitulus*
 - Epigyne only slightly narrowing posteriorly (Fig.53) *barat*



Figs. 53–55. Epigyne of *Indophantes barat* sp.n., ♀ paratype: 53 — ventral view, 54 — lateral view, 55 — dorsal view.
 Рис. 53–55. Эпигина *Indophantes barat* sp.n., ♀ паратип: 53 — вентрально, 54 — латерально, 55 — дорзально.

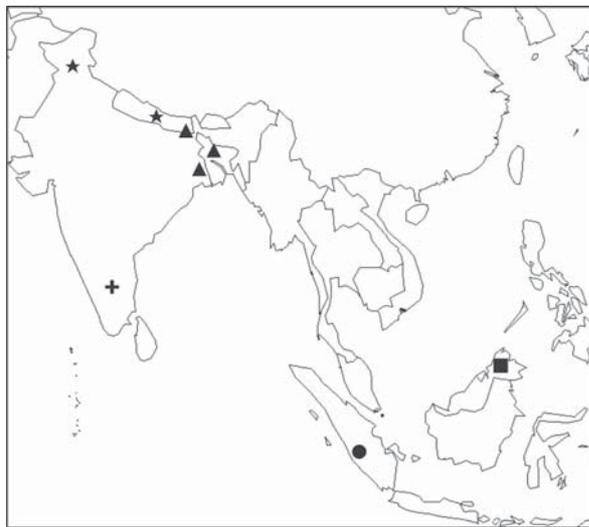


Fig. 56. Distribution of the genus *Indophantes* gen.n.: ■ — *I. kalimantanus*, *I. lehtineni* & *I. kinabalu*; ● — *I. sumatera* and *I. barat*; + — *I. pallidus*; ▲ — *I. bengalensis*; ★ — *I. digitulus* [Thaler, 1987].

Рис. 56. Распространение рода *Indophantes* gen.n.: ■ — *I. kalimantanus*, *I. lehtineni* и *I. kinabalu*; ● — *I. sumatera* и *I. barat*; + — *I. pallidus*; ▲ — *I. bengalensis*; ★ — *I. digitulus* [Thaler, 1987].

- 4. Pseudoscape large, more or less oval (Fig. 21)
 *kinabalu*
- Pseudoscape of different shape 5
- 5. Pseudoscape tongue-like, longer than wide (Fig. 33)
 *pallidus*
- Pseudoscape wider than long 6
- 6. Arms of posterolateral plate converging anteriorly 7
- Arms of posterolateral plate parallel (Fig. 16)
 *sumatera*
- 7. Area formed by pseudoscape and proscapus wider than
 long (Fig. 12) *kalimantanus*
- Area formed by pseudoscape and proscapus longer than
 wide (Fig. 14) *lehtineni*

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References

Saaristo M.I., Tanasevitch A.V. 2000. Systematics of the *Bolyphantes-Poecilometes* genus-group of the subfamily Micronetinae Hull, 1920 (Arachnida: Araneae: Linyphiidae) // *Reichenbachia*. Bd.33. Nr.32. S.255–265.
 Tanasevitch A.V. 1987. The spider genus *Leptyphantes* Menge 1866 in Nepal (Arachnida: Araneae: Linyphiidae) // *Cour. ForschInst. Senckenberg*. Bd.93. S.43–64.
 Thaler K. 1987. Über einige Linyphiidae aus Kashmir (Arachnida: Araneae) // *Cour. ForschInst. Senckenberg*. Bd.93. S.33–42.