Smeringopina pulchra (Millot, 1941)

Millot, J. 1941. Les araignées de l'Afrique occidentale Francaise. Sicariides et pholcides. Mémoires, Acad. Sci. Inst. France 64: 1-30.

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Smeringopus pulcher n. sp.

(*fig.* 8).

Corps très allongé, surtout chez le ♂ où l'abdomen est cinq à six fois plus long que large; il est orné d'élégants dessins noirs que met en valeur le fond clair du tégument.

Céphalothorax plat, sauf une dépression médiane assez profonde en arrière de la tête; nettement plus large que long, il est de couleur orangé pâle, rembruni dans la zone médiane et sur les bords.

Abdomen caractérisé par : 1° une bande dorsale noire médio-longitudinale, élargie dans son milieu et dans le tiers postérieur; 2° de longues « mèches » latérales sinueuses; 3° une large bande noire ventrale, dilatée dans sa région médiane où elle contient un dessin blanc trilobé, fortement étranglée, mais non interrompue, dans son quart postérieur.

Sternum roux orangé, liséré de noirâtre sur tout son pourtour. Pattes et pièces buccales orangé clair chez les ♂, testacé brunâtre ou verdâtre pâle chez les ♀ ; le sternum, le clypeus et les pièces buccales de celles-ci sont parfois noirâtres, comme chez les individus immatures.

♂. Clypeus développé, à bord inférieur fortement convexe.

Chélicères élargis par une expansion latérale occupant presque toute la hauteur de la partie libre de la tige. Elle est terminée en haut, par une petite protubérance à demi arrondie, en bas, par une sorte de corne dont le sommet est armé sur son bord interne de petites dents noirâtres.

Palpe (*fig.* 8 I et J). Trochanter portant un prolongement antéro-externe recourbé. Fémur court et trapu, guère plus développé que la patelle, présentant une saillie externe. Tibia globuleux. Apophyse externe

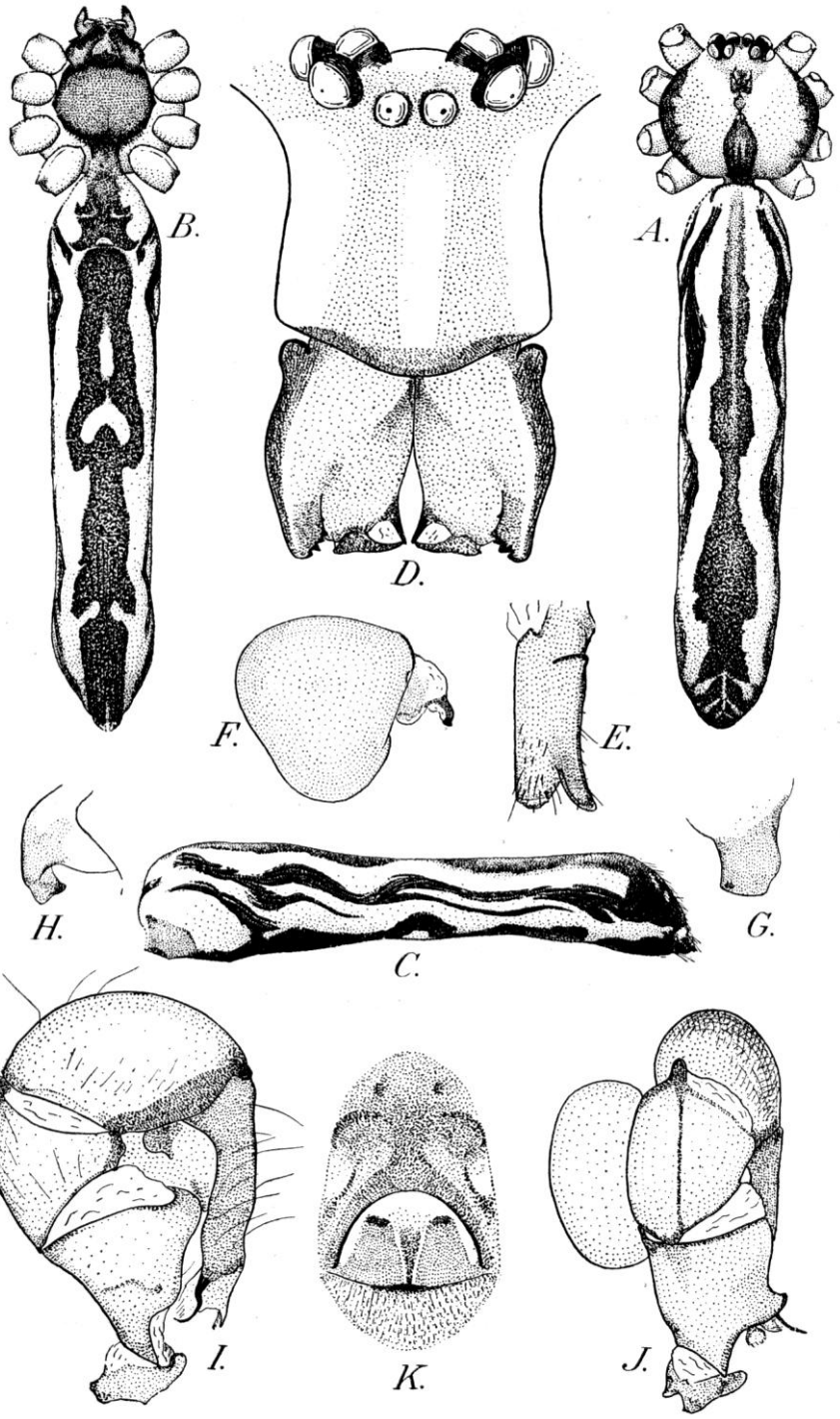

Fig. 8. — *Smeringopus pulcher* n. sp. : A, ♂, vue dorsale. B, ♂, vue ventrale. C, ♂, vue latérale de l'abdomen. D, ♂, tête de face. E, ♂, chélicère de profil. F, ♂, bulbe, face interne. G, ♂, embolus, vu de face. H, ♂, embolus, vu de trois quart. I, ♂, palpe, face externe. J, ♂, palpe, en vue postérieure. K, ♀, région génitale.

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du tarse presque rectiligne, à contour irrégulier; elle est terminée par une sorte d'aiguille noire recourbée, caractéristique. Bulbe globuleux, grossièrement cordiforme (*fig.* 8 F), de couleur orangée; il mesure $0^{mm},6$ de hauteur. Embolus court, en forme de lamelle recourbée, à extrémité tronquée (*fig.* 8 G et H).

Longueur totale, 7^{mm}. Longueur du céphalothorax, $1^{mm},3$; largeur, $1^{mm},6$.

Pattes.....	I	>	II	>	IV	>	III
Fémur.....	18		13,5		12,5		10,0
Patelle + tibia	18		11,0		10,5		8,5
Protarse + tarse	36		21,5		20,5		15,0
Total	72		46,0		43,5		33,5

♀. Aire chitinisée de la région génitale beaucoup plus haute que large. Entre les deux lèvres fortement écartées, deux petites plaques quadrangulaires que je propose d'appeler « plaquettes », nettement plus hautes que larges (*fig.* 8 K).

Les chélicères ne présentent pas de différenciations spéciales.

Longueur totale, $6^{mm},2$. Patte I, $50^{mm},5$ (fémur, 11^{mm}; patelle + tibia, $11^{mm},5$; protarse + tarse, 28^{mm}).

Guinée française. — Macenta : 1 ♂. Côte d'Ivoire. — Bingerville : 6 ♀, 6 ♂, 3 immatures. Man : 1 ♂, 1 ♂ immature, 2 ♀, 1 immature.

Huber, B. A. 1995. Copulatory mechanism in *Holocnemus pluchei* and *Pholcus opilionoides*, with notes on male cheliceral apophyses and stridulatory organs in Pholcidae (Araneae). Acta Zool. (Stockholm) 76(4): 291-300.

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It further indicates the necessity to place *Smeringopus pulcher*, *S. guineensis* and *S. bineti* (all: Millot, 1941) into the genus *Smeringopina* Kraus, 1957.

Huber, B. A., Fleckenstein, N. 2008. Comb-hairs on the fourth tarsi in pholcid spiders (Araneae, Pholcidae). J. Arachnol. 36: 232-240.

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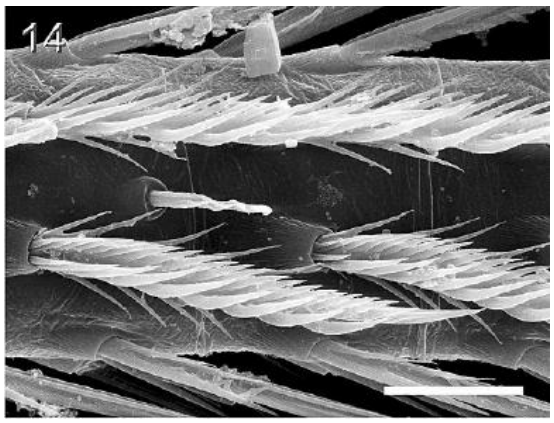

Figures 13–18.—Hairs on tarsus 4, "holocnemines." 13. *Hoplopholcus minotaurus*, female left tarsus 4, prolateral; 14. *Smeringopina pulchra*, female tarsus 4, ventral; note two rows of comb-hairs; 15. *Physocyclus globosus*, female right tarsus 4, prolateral; 16. *Trichocyclus nullarbor*,

Huber, B. A. 2013. Revision and cladistic analysis of the Guineo-Congolian spider genus *Smeringopina* Kraus (Araneae, Pholcidae). Zootaxa 3713: 1-160.

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***Smeringopina pulchra* (Millot, 1941)**
Figs. 5, 34–40, 53, 56–75

Smeringopus pulcher Millot 1941: 20–22, figs. 8A–K.
Smeringopina pulchra: Huber 1995: 299 (transfer to *Smeringopina*). Huber & Fleckenstein 2008: fig. 14 (SEM of comb hairs).

Types. ♂ holotype from Ivory Coast, Bingerville [5°21.6'N, 3°54'W], ix.1937 (J. Millot), in MNHN (Ar 10482), with original label: "Sm. pulcher M., Type, J. Millot rec. et. det., Bingerville, C. d'Iv., IX 37". 6♂6♀ 2 juvs. paratypes, same data as holotype, in MNHN (Ar 10476, 10477, 10479). 1♂2♀ 2 juvs. paratypes from Ivory Coast, Man [7°24.6'N, 7°33'W], ix.1937 (J. Millot), in MNHN (Ar 10478, 10493). 1♂ paratype from Guinea, Macenta [8°32.5'N, 9°28.2'W], viii.1937 (J. Millot), in MNHN (Ar 10481); all types examined.

Notes. Millot (1941) did not explicitly designate a holotype in his publication but he separated a male and labeled it as "Type". This is here considered the holotype.

The male paratype from Macenta (Guinea) is somewhat dubious (labeling error?) because *S. pulchra* could not be found in any Guinean locality during a recent expedition (only *S. guineensis* was found in eastern Guinea).

Other material examined. IVORY COAST: Lamto [6°13.2'N, 5°01.8'W], 17./28.vi.1963, collector not given, 1♂5♀ (2 vials) in MNHN. Abidjan [5°22.2'N, 4°03.0'W], 17.vi.1958 (E.S. Ross, R.E. Leech), 1♂ in CAS. Adiopo Doumé, Centre Suisse de Recherche Scientifique (CSRS), small dry forest, beating, 25.ii.2010 (D. van den Spiegel, R. Jocqué), 1♂7♀ 1 juv. in MRAC (230358 part); same locality, 25./26.ii.2010, sieving litter, 2♂3♀ + juvs. (2 vials) in MRAC (230222, 230360 part). Appouesso, Forêt classée de la Bossematié [6°36.9'N, 3°27.1'W], dense forest, in webs between tree buttresses, xi.1993 (R. Jocqué), 2♂ in MRAC (177658); same data but 30.xi.1993, 1♂ in MRAC (177613 part); same locality, 20.xi.1993, dense forest, transect, 1♂1♀ in MRAC (177664); same locality, dense forest, 19.xi.1993, 1♂1♀ in MRAC (177651); same locality, rain forest, in web of *Euprosthenops* [Pisauridae], 18.xi.1994, 2♀ in MRAC (201073); same locality, rain forest, 24.ii.1997 (R. Jocqué, L. Baert), 1♀ in MRAC (205414 part). Bettié, Forêt classée de Mabi [6°04.2'N, 3°24.6'W], dense forest, by hand, 23.xi.1993 (R. Jocqué), 1♀ in MRAC (177635); same locality, forest road, on car, 25.xi.1993 (R. Jocqué), 1♂1♀ in MRAC (177696). Forêt des Marais-Tanoé, Aboisso, Dohouan [5°10'N, 2°50'W], beating, 25.x.2010 (A. Kablan), 1♀ in MRAC (233748). Guiglo [6°32.4'N, 7°28.8'W], viii.1979 (Mission R.U. Gent), 1♀ in MRAC (152038). Forêt de Taï, station du Centre de Recherche Ecologique (CRE), forest across river [5°50'N, 7°21'W], near pitfalls III, forest on clayey soil, beating, 20.ii.2010 (M. Diarassouba, R. Jocqué), 1♂1♀ in MRAC (230287); same locality, forest near camp, by hand, 21.ii.2010 (R. Jocqué), 1♀ in MRAC (230136); same locality, road near Chimpanzee Camp, beating in forest, 22.ii.2010, 2 juvs. in MRAC (230346 part); same locality, 20.ii.2010, 1♀ 1 juv. in MRAC

(230470); same locality, at foot of trees, by hand, 22.ii.2010 (R. Jocqué), 1♂ in MRAC (230146 part); same locality, forest E of camp, layon Gérard, inundated forest, sieved litter, 20.ii.2010 (R. Jocqué, L. Oulaï), 1♂3♀ in MRAC (230243).

GHANA: *Western Region*: Ankasa National Park (5°13.0'N, 2°39.1'W), 180 m a.s.l., forest near entrance, day collecting, 22.ii.2013 (B.A. Huber), 10♂8♀ in ZFMK (Ar 10163); same data but night collecting, 6♂3♀ in ZFMK (Ar 10164); same data, 3♀ in pure ethanol, in ZFMK (Gha 158); Ankasa National Park (~5°15.1'N, 2°38.4'W), ~100 m a.s.l., forest along Big Tree Trail, 23.ii.2013 (B.A. Huber), 12♂6♀ in ZFMK (Ar 10165). *Central Region*: Kakum National Park (5°20.9'N, 1°23.0'W), 160 m a.s.l., forest near entrance, day collecting, 19.–20.ii.2013 (B.A. Huber), 32♂13♀ (3 vials) in ZFMK (Ar 10166-68); same data but night collecting, 20.ii.2013 (B.A. Huber), 5♂1♀ in ZFMK (Ar 10169); same data, 2♀ in pure ethanol, in ZFMK (Gha 148). Kakum Forest [5°21.4'N, 1°23.4'W], primary forest, 16./21./23./25.xi.2005 (R. Jocqué, D. de Bakker, L. Baert), 1♂7♀ (4 vials) in MRAC (217711, 726, 735, 741); same data but secondary forest, 15./19./25.xi.2005, 1♂2♀ 1 juv. (3 vials) in MRAC (217172, 704, 731); same data but beating between primary and secondary forest, 11.xi.2005, 1♀ 1 juv. in MRAC (217275). *Eastern Region*: Atewa Hills, Atewa Atwirebu Reserve (6°13.8'N, 0°33.5'W), 740 m a.s.l., 25.ii.2013 (B.A. Huber), 15♂9♀ in ZFMK (Ar 10170); same data, 2♀ in pure ethanol, in ZFMK (Gha 134). Atewa Atwirebu Reserve (6°13.8'N, 0°32.4'W), 500 m a.s.l., degraded forest along road, 24.ii.2013 (B.A. Huber), 4♂6♀ in ZFMK (Ar 10171). *Brong Ahafo Region*: Booyem (7°40.6'N, 1°57.1'W), 470 m a.s.l., at Bibri waterfall, 4.iii.2013 (B.A. Huber), 3♂4♀ in ZFMK (Ar 10172); same data, 2♀ in pure ethanol, in ZFMK (Gha 129). Booyem (7°39.9'N, 1°57.4'W), 450 m a.s.l., at large rocks, 4.iii.2013 (B.A. Huber), 1♀ in ZFMK (Ar 10173). *Volta Region*: Agumatsa Wildlife Sanctuary, Wli waterfall (7°06.2'N, 0°36.0'E), ~300 m a.s.l., forest near waterfall, 27.ii.2013 (B.A. Huber), 1♂9♀ in ZFMK (Ar 10174). Tagbo waterfall (7°00.7'N, 0°34.4'E), ~500 m a.s.l., forest near waterfall, 28.ii.2013 (B.A. Huber), 6♂3♀ in ZFMK (Ar 10175).

TOGO: Missahohe [6°56'N, 0°36'E], 6.viii.1969 (F. Puylaert), 1♂ in MRAC (136079); same locality, 1893 (E. Baumann), 2♂ in ZMB.

Diagnosis. Distinguished from similar congeners (*S. guineensis*, *S. bineti*) by straight procursus (Figs. 40, 57), obtuse bulbal apophysis (Fig. 58), absence of median apophyses proximally on male chelicerae (Figs. 59, 64), and by strongly curved posterior margin of anterior epigynal plate (Figs. 37, 60, 73); from *S. guineensis* also by presence of ventro-distal apophysis on procursus (Fig. 57), all modified hairs on large cheliceral apophyses grouped close together (Figs. 59, 68), and by pair of humps on anterior epigynal plate (Fig. 66); from *S. bineti* also by longer legs and by absence of dark lateral marks on carapace (only dark margins; Fig. 34).

Male (Appouesso, MRAC 177664). Total body length 6.8, carapace width 1.5. Leg 1: 68.3 (15.3 + 0.7 + 15.3 + 33.9 + 3.1), tibia 2 missing, tibia 3: 7.3, tibia 4: 9.7; tibia 1 L/d: 115. Distance PME-PME 170 µm, diameter PME 160 µm, distance PME-ALE 80 µm, distance AME-AME 35 µm, diameter AME 135 µm. Carapace ochre-orange with brown triangular mark posteriorly and brown lateral margins; ocular area posteriorly brown, clypeus with indistinct pair of brown lines and brown rim, sternum light ochre-brown with darker margins; legs ochre, tips of femora and tibiae whitish, dark rings subdistally on femora and tibiae and in patella area; abdomen ochre-gray with distinct black pattern dorsally, laterally, and ventrally. Habitus as in Figs. 34–36, ocular area slightly elevated, secondary eyes with indistinct 'pseudo-lenses' (Fig. 67); clypeus unmodified except evenly curved sclerotized rim; deep thoracic pit and pair of shallow furrows diverging behind pit (Fig. 65). Chelicerae as in Fig. 59, without median projections proximally, with lateral proximal apophyses, large distal apophyses provided with 3–5 modified hairs each, without distal apophyses close to fang joint. Palps as in Figs. 38–40; coxa only slightly bulged retrolaterally; trochanter with simple retrolatero-ventral apophysis; femur with retrolateral projection, with large ventral bulge distally, without ventral or prolateral modification proximally; prolateral femur-patella joint only slightly moved toward ventrally; tarsus with about 3–4 stronger hairs; procursus without hinge, straight, with two long ventral hairs bent around procursus and directed toward dorsally, distally with distinctive ventral apophysis and moveable dorsal sclerite embedded in membranous cuticle (Figs. 56–57, 70); bulb with simple obtuse apophysis arising from membranous basal projection (Fig. 58; sperm duct apparently opens at membranous basal projection at basis of apophysis; Fig. 69). Legs without spines and curved hairs, with few vertical hairs, retrolateral trichobothrium on tibia 1 at 1.5%; prolateral trichobothrium present on all tibiae; pseudosegments barely visible. ALS with seven spigots each (Fig. 71); gonopore with two epiandrous spigots (Fig. 72).

Variation. Number of modified hairs on male chelicerae slightly variable; color of sternum variable (ochre-orange to dark brown). Tibia 1 in 30 other males: 10.1–16.4 (mean 14.2). The type specimens are bleached but mostly in fair condition; the holotype lacks the right palp and the moveable sclerite distally on the procursus is

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missing in the left palp (probably broken); the male paratype from Man lacks the right palp; the male paratype from Macenta is in poor condition, with palps and chelicerae detached and partly destroyed.

Female. In general similar to male; sternum and clypeus variably dark. Tibia 1 in 30 females: 9.5–11.5 (mean 10.6). Epigynum consisting of large anterior plate with deep posterior indentation and pair of low humps in anterior part, and large posterior plate composed of sclerotized posterior arc and pair of distinct anterior plates (Figs. 37, 53, 60, 66, 73); internal genitalia as in Fig. 62, with distinct globular structures between uterus externus and anterior epigynal plate (Fig. 61). ALS as in male (Fig. 74).

Natural history. In southern Ghana, *S. pulchra* was often among the dominant web-building spiders, both in well-preserved forests and in degraded forest fragments. In Ankasa N.P. I counted about 60 adult specimens among the buttresses of a single *Piptadeniastrum africanum* tree. The domed webs were found mainly in protected places but often also in low vegetation. Small nematocerous flies were often found hanging from the webs, sometimes in high numbers. In some places (most notably Ankasa N.P.) *Argyrodes* spiders were also found in the webs. In Kakum N.P., the spiders were observed to stick strongly to their own silk (when caught with the hand); this was not the case at other localities. When disturbed, the spiders vibrated with high amplitude and then tried to escape, but did not drop to the ground.

Distribution. Widely distributed in southern Ivory Coast, Ghana, and Togo (Fig. 33). The single record from Guinea is dubious (see Notes above).

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5. *S. pulchra*, male (Ankasa N.P., Ghana).

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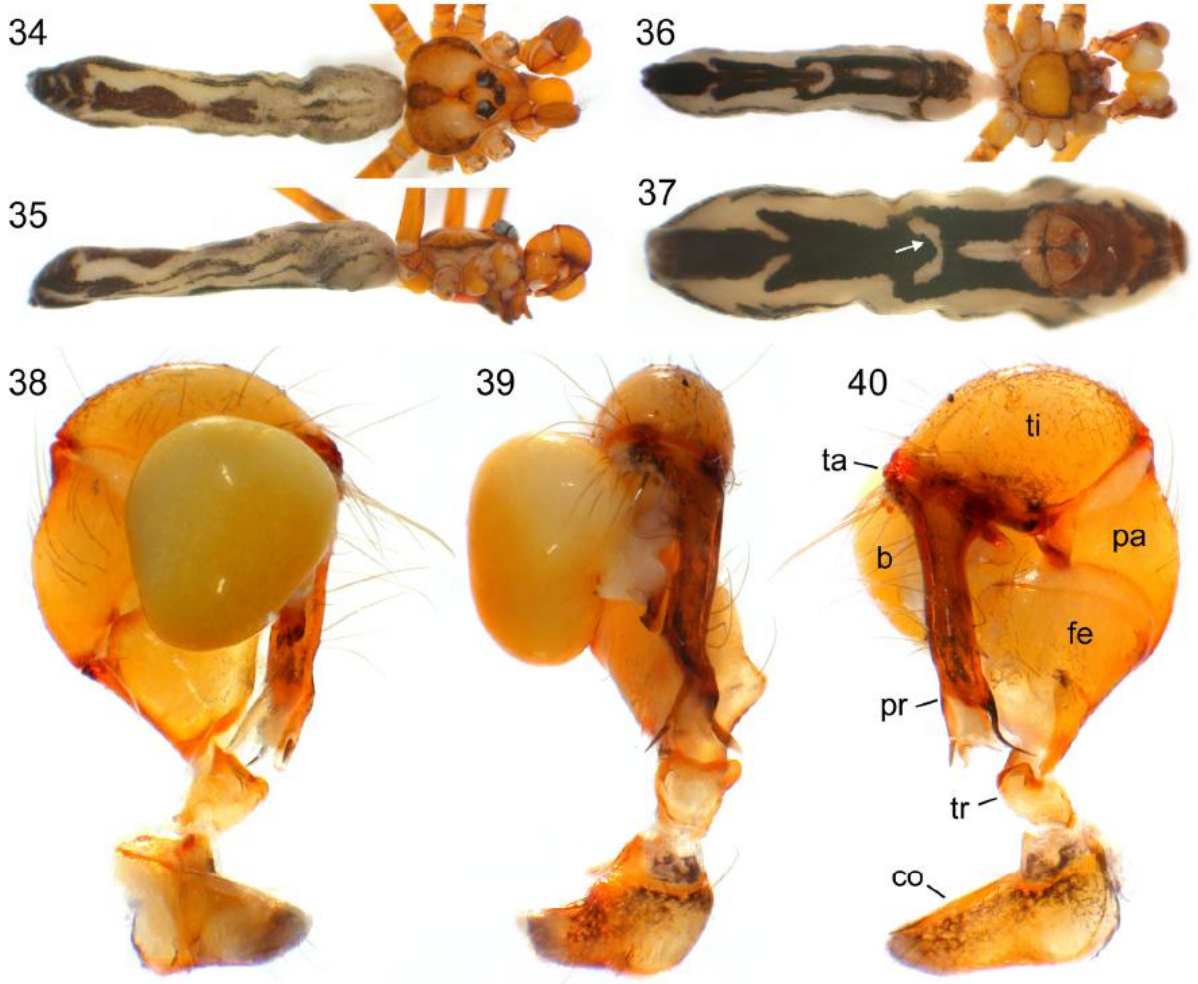

FIGURES 34–45. *Smeringopina pulchra* (Millot) (34–40) 34–36, 41. Males, dorsal, lateral, and ventral views. 37, 42. Female abdomens, ventral views; arrow points at U-shaped light element. 38–40, 43–45. Left male palps, prolateral, dorsal, and retrolateral views; b: bulb; co: coxa; fe: femur; pa: patella; pr: procursus; ta: tarsus; ti: tibia; tr: trochanter.

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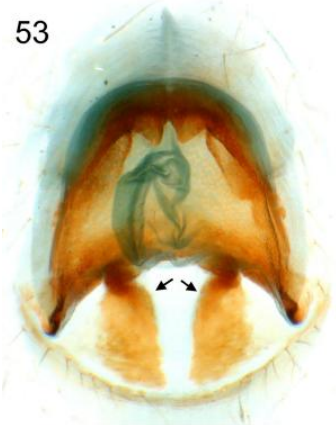
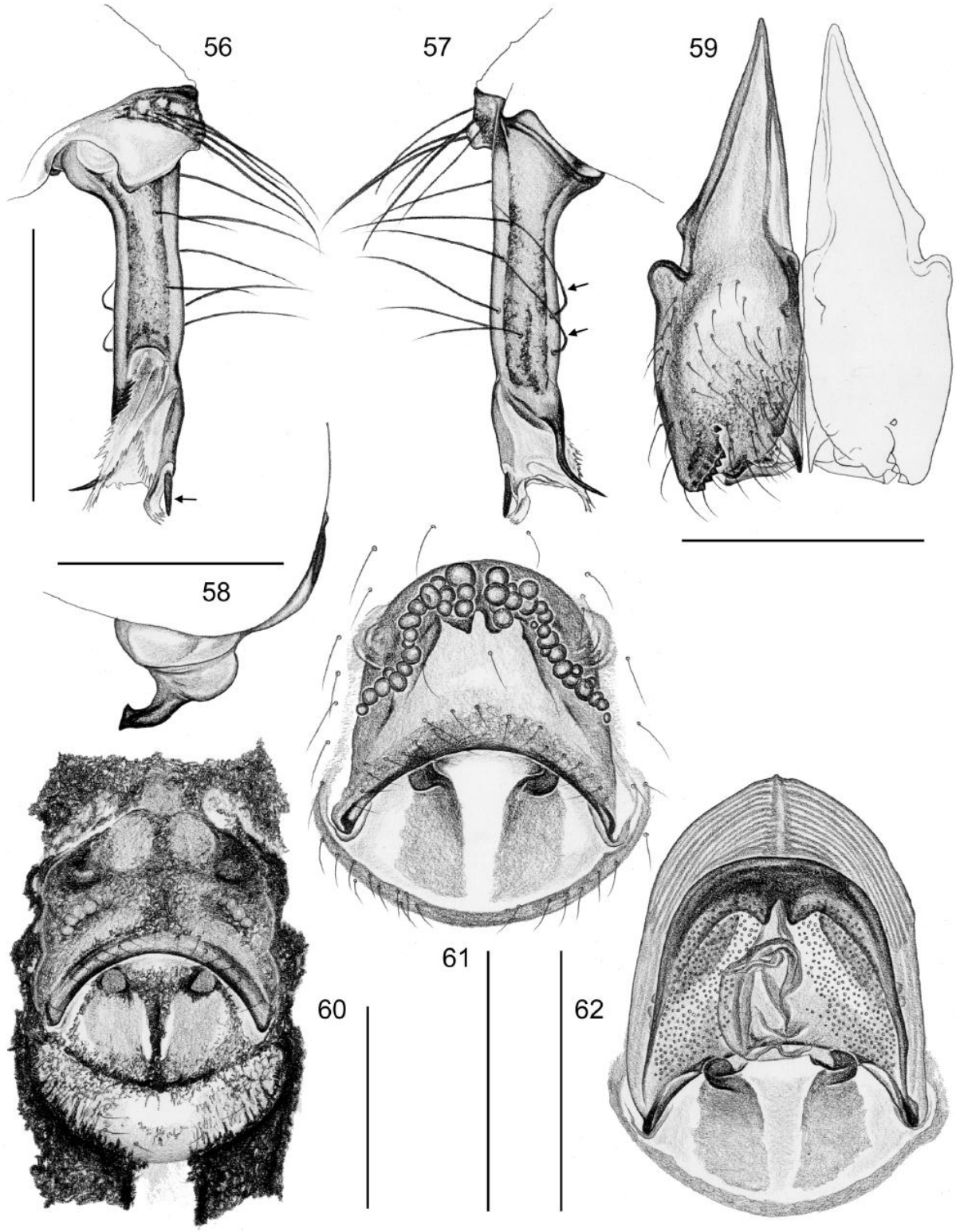
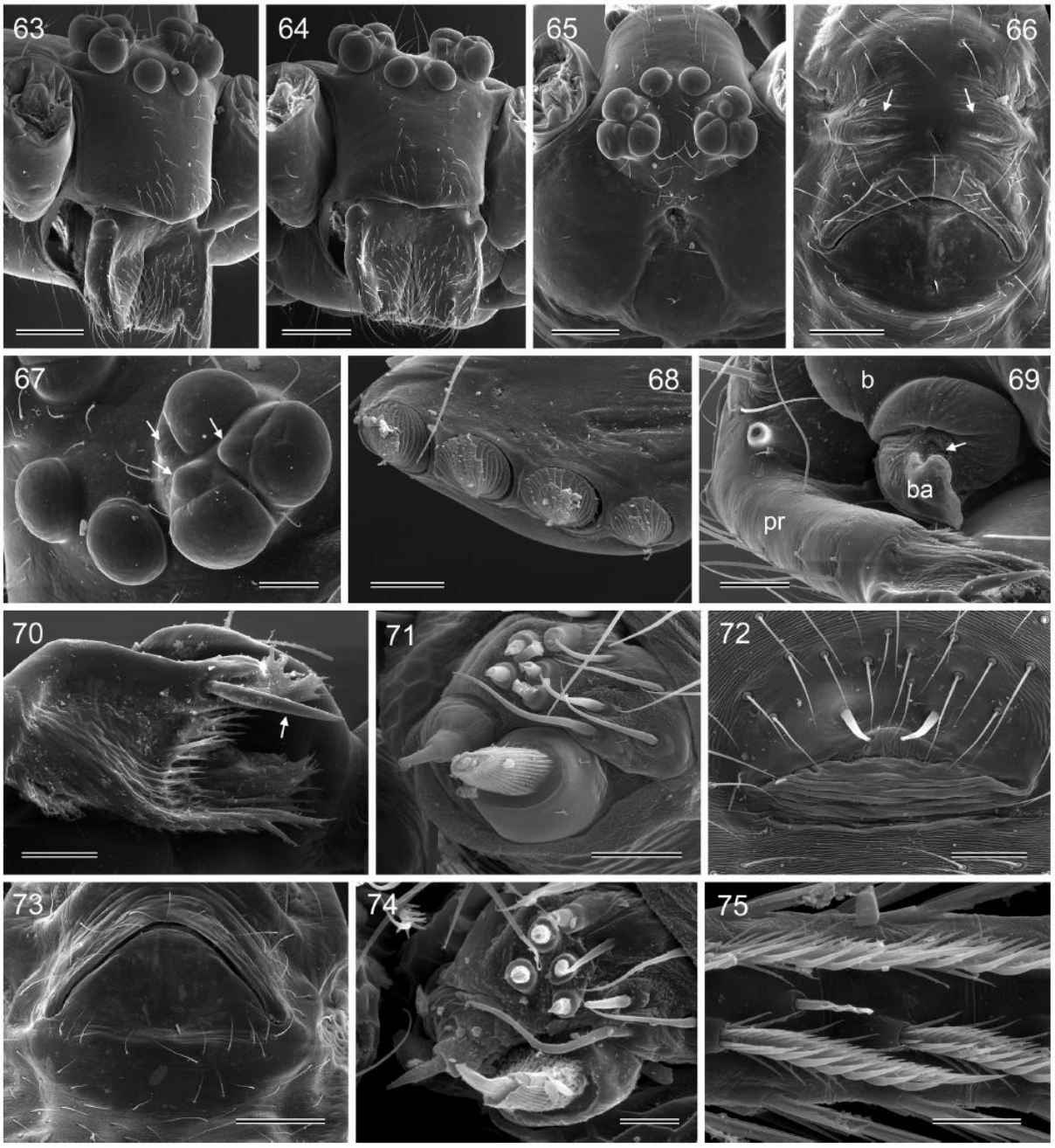


FIGURES 46–55. *S. pulchra* (Millot) (53),

53–55. Cleared female genitalia, dorsal views; arrows point at distinctive sclerotized areas of posterior epigynal plate.



FIGURES 56–62. *Smeringopina pulchra* (Millot). 56–57. Left procursus, prolateral and retrolateral views; arrows point at distal sclerite embedded in membrane (56) and at distinctive curved hairs (57). 58. Left bulbal process, prolateral view. 59. Male chelicerae, frontal view. 60. Epigynum, ventral view. 61–62. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.3 (58), 0.5 (56–57, 59–62).



FIGURES 63–75. *Smeringopina pulchra* (Millot). 63–65. Male prosoma, oblique, frontal, and dorsal views. 66. Epigynum, ventral view; arrows point at humps. 67. Male ocular area with 'pseudo-lenses' (arrows). 68. Tip of right male cheliceral apophysis. 69. Right palp, distal view; arrow points at sperm duct opening. 70. Left procursus, prolateral view; arrow points at sclerite embedded in membrane. 71. Male ALS. 72. Male gonopore. 73. Posterior plate of epigynum, ventral view. 74. Female ALS. 75. Comb-hairs on female tarsus 4. Abbreviations: b: bulb; ba: bulbal apophysis; pr: procursus. Scale lines: 10 µm (74), 20 µm (68, 71, 75), 60 µm (70, 72), 80 µm (69), 100 µm (67), 200 µm (66, 73), 300 µm (63–65).