

Pholcus elongatus (Yin & Wang, 1981)

Yin, C-M. & Wang, J-F. 1981. Two new species of spiders of the genus *Spermophora* from China. *Acta Zootaxonomica Sinica* 6(4): 378-382.

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长六眼幽灵蛛 *Spermophora elongata*, 新种(图 2)

♂ 身体细长,腹部三倍于头胸部的长度。体长 5.2; 头胸部长 1.2, 宽 1.2; 腹部长 4.1, 宽 0.74。足式: I>IV>II>III; 其量度为 I:36.4(9.0 + 8.4 + 17.0 + 2.0), II:20.6(6.0 + 5.4 + 8.0 + 1.2), III:13.2(4.0 + 3.2 + 5.0 + 1.0), IV:20.8(6.4 + 5.2 + 8.0 + 1.2)。六眼两群, 每群三眼着生在具有短柄的隆起上, 眼柄向前方外侧突起, 两群眼远离(图 2,A)。头胸部圆形, 稍拱曲, 生活时淡灰色, 酒精浸泡后转淡灰黄色。颈沟不明显; 头部平, 较胸部稍低。额部弧形, 缓慢向前突出, 棕黑色, 前缘渐淡。头部、眼柄以及头胸部正中带状斑都呈棕黑色, 后者并与额部斑相连(图 2,A)。螯肢内缘齿较尖细, 指向前方, 其后有一较大齿状突起, 指向内缘, 螯基后端尚有一指向后方的齿突(图 2,B)。胸板淡灰黄色, 后端平削, 不嵌入第四步足基节间。步足细长, 与体同色, 但腿节的远端、整个膝节、胫节和后跗节的两端诸部分呈棕黑色。腹部长圆筒形, 后端稍粗, 向背腹侧稍隆起, 纺

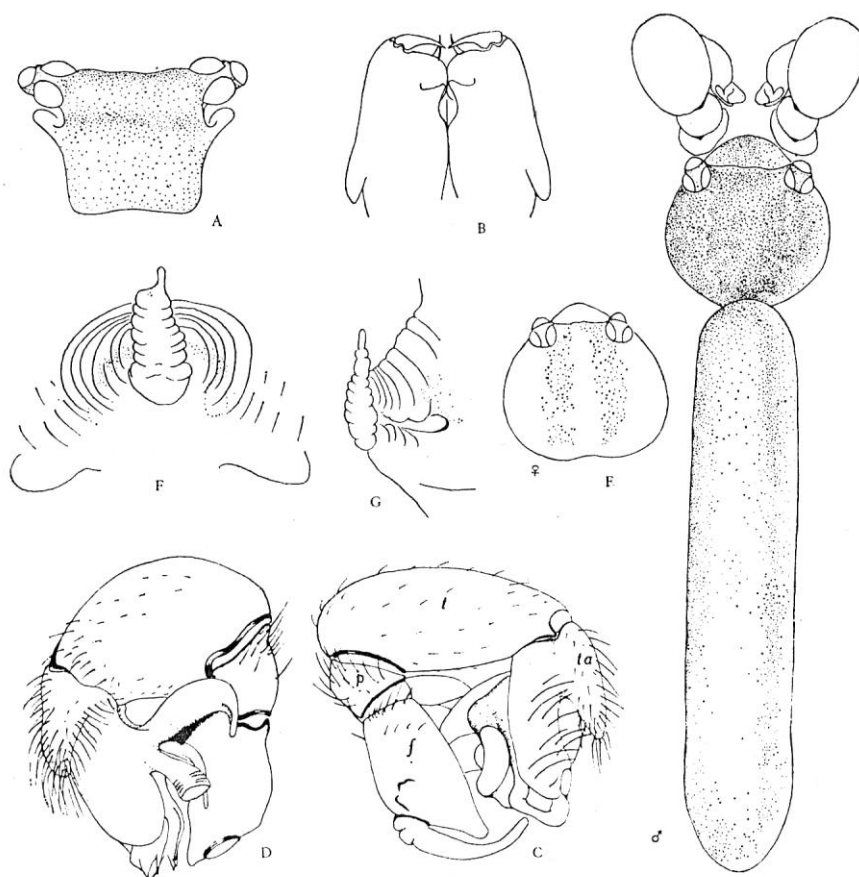


图 2 长六眼幽灵蛛, 新种 *Spermophora elongata*, sp. nov.

- A. 头部正面观 (♂) (head, frontal view) B. 螯肢 (♂) (chelicera) C. 触肢器 (外侧观) (tarsal organs of male palp, exo-lateral view) D. 同 C (内侧观) (ditto, endo-lateral view) E. 头胸部背面观 (♀) (cephalothorax, dorsal view) F. 外雌器外形 (腹面观) (epigyne, ventral view) G. 同 F (侧面观) (ditto, lateral view)

器位于腹侧隆起上。整个腹部无斑纹,淡灰黄色。触肢器粗壮,结构特殊:基节长;腿节基部外缘有粗扁齿突一枚(图2,C);生殖球近端内侧有两个粗大突起,一呈镰刀状,另一呈短筒状(图2,D)。

♀ 形状、大小和体色皆与♂相似。体长4.6;头胸部长1.0,宽1.08;腹部长3.6,宽1.0;由于标本左右侧的步足不齐全,不列足式,而从下列量度来看,足式与♂相同。其量度为I(左): 33.6(7.2 + 7.2 + 17.0 + 2.2), II(左): 18.0(5.1 + 4.7 + 7.0 + 1.2), III(右): 11.5(3.8 + 2.7 + 4.0 + 1.0), IV(右): 18.3(5.8 + 4.4 + 7.0 + 1.1)。但♀的眼丘不延长成短柄;胸部背面斑纹是一对条状斑(图2,E);螯基有一淡黑斑。外雌器简单,雌孔上方有若干同心圆弧褶皱,下方有一具环纹的锥状突起,折弯向前(图2,F,G)。

正模♂,配模♀: 云南勐腊,1979年3月23日(王家福)。

幽灵蛛科绝大多数种具有8眼,少数具6眼而两群眼又彼此远离者归于六眼幽灵蛛属。因此,我们将本种隶属于此属。从划分种级的重要依据——触肢器、外雌器的结构来看,在六眼幽灵蛛属的已知种中没有与本种相似的种,尤其未见有雄蛛具有短眼柄和腹部细长。如不考虑眼的数目,仅就外生殖器结构作比较,则本种与长跗幽灵蛛 *Pholcus opilionoides* (Schrank, 1781) 尚有类似之处,如触肢器粗壮,基本外观相似,但两者结构各异,如生殖球上的角质突起很不相似,前者如前所述具有两个粗大突起,一呈镰刀状,另一呈短筒状,后者的突起较细小,呈鞭状。

本种生活在野外榕树气生根丛间,夜间捕食,网不规则。蜘蛛停息于网上时,身体腹面朝上,时而作左右摆动。

2. *Spermophora elongata*, sp. nov. (fig. 2)

According to the number and the arrangement of eyes, the new species is classified into the genus *Spermophora*, which lacks the anterior median eyes and the ocular triads are very widely separated. By several characteristics, the new species differs distinctly from all the known species of the genus and the new species just described above. The six eyes of the male are arranged in such two groups as each being elevated from a short stalk, protruding forwards and side wards. The abdomen is elongated, three times and more longer than the cephalothorax, and without any markings. The palpal organ is stout, with a long coxa, the outer margin of the base of the femur having small tooth-like prominence, and the inner side of the axial end of the genital bulb with two stout apophyses, one of which sickle-like and the other like a short cylinder.

Holotype ♂, allotype ♀: Mengla, Yunnan Province, March 23, 1979 (Wang).

This species makes its web between the aerial roots of the banyan. The web is irregular. When it rests on the web the ventral side of its body is upwards and vibrates horizontally.

All the type specimens of these two new species are deposited in the Department of Biology, Hunan Teachers' College.

长六眼幽灵蛛 *Spermophora elongata* Yin & Wang, 1981

雄蛛体长5.20毫米，身体细而长，尤其腹部3倍于头胸部的长。头胸部圆形，稍拱曲，生活时淡灰色，酒精浸泡后转淡灰黄色。颈沟不明显；头部平，较胸部稍低。额部弧形，缓慢向前突出，棕黑色。头部、眼柄及头胸部正中带状斑都呈棕黑色，后者并与额部斑相连。6眼两群，每群3眼着生在具有短柄的隆起上，眼柄向前方外侧突起，两群眼远离。螯肢内缘齿较尖细，指向前方，其后方有1较大齿状突起，指向内缘，螯基后端尚有一指向后方的齿突。胸板淡灰黄色，后端平削，不嵌入第Ⅳ步足基节间。步足细长，与体同色，但腿节的远端、整个膝节、胫节和后跗节的两端诸部分呈棕黑色。腹部长圆筒形，后端稍粗，向背腹侧稍隆起，纺器位于腹侧隆起上。整个腹部无斑纹，淡灰黄色。触肢器官粗壮，结构特殊：基节长，腿节基部外缘有粗扁齿突一枚；生殖球近端内侧有2个粗大突起，一呈镰刀状，另一呈短筒状（图73，6-7）。

雌蛛体长4.60毫米。形状、大小和体色皆与雌蛛相似。但雌蛛的眼丘不延长成短柄；胸部背面斑纹是一对条状斑；螯基有一淡黑斑。外雌器简单，雌孔上方有若干同心圆弧褶皱，下方具有一环纹的锥状突起，折弯向前（图73，3-4）。

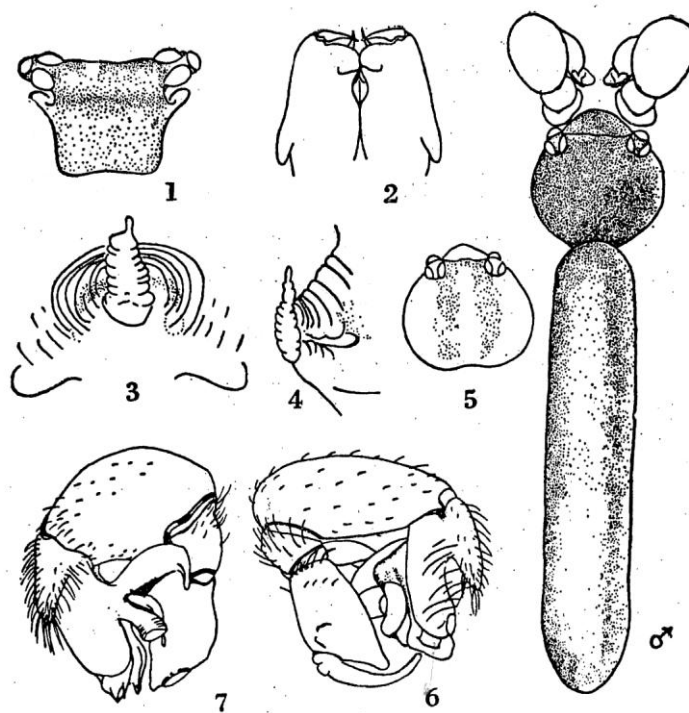


图73 长六眼幽灵蛛 *Spermophora elongata*
1.雄蛛头部正面观 2.螯肢 3.雌蛛外雌器之外形 4.同前，侧面观 5.雌蛛头胸部背面观 6.雄蛛触肢器之外侧观 7.同前，内侧观（仿尹长民等）

生活于野外榕树气生根丛间，夜间捕食昆虫。网不规则，蜘蛛停息于网上时，身体腹面朝上，时而作左右摆动。

分布：云南（勐腊）。

另外，在甘肃还有广六眼幽灵蛛 *S. senoculata* (Duges, 1836)

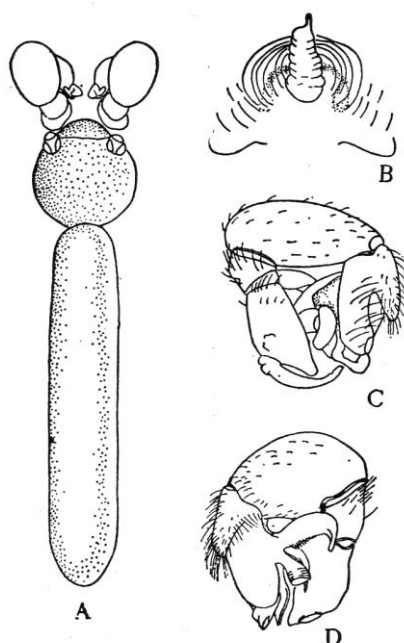


图 75 长六眼幽灵蛛

(*Spermophora elongata* Yin et Wang, 1981)
A. 外雌器 B. 雄蛛外形 C. 雄蛛左触肢器外侧观 D. 雄蛛左触肢内侧观
(仿尹长民、王家福, 1981)

1981) (图75)

雌蛛长 4.6 毫米。头胸部圆形，稍拱曲，生体淡灰色，固定标本淡灰黄色。6 眼两群，远离。颈沟不明显。头部平，较胸部稍低。额部弧形，缓慢向前突出，棕黑色，前缘渐淡。胸部背面有一对条状斑。螯基有一淡黑斑。胸板淡灰黄色，后端平截，不嵌入第四步足基节间。步足细长，与体同色，但腿节的远端、整个膝节、胫节和后跗节的两端均呈棕黑色。足式：1，4，2，3。腹部长圆筒形，为头胸部长三倍多，后端稍粗，向背腹侧稍隆起。外雌器简单，雌孔上方有若干同心圆弧褶皱，下方有一具环纹的锥状突起，折弯向前。整个腹部无斑纹，淡灰黄色。纺器位于腹侧隆起上。

雄蛛长 5.2 毫米。体形同雌蛛。惟眼丘延长成短柄，眼柄向前方外侧突起。头部、眼柄以及头胸部正中带状斑都呈棕黑色，后者并与额部斑相连。螯肢内缘齿较尖细，指向前方，其后方有一较大齿状突起，指向内缘，螯基后端尚有一指向后方的齿突。触肢器粗壮，结构特殊。基节长；腿节基部外缘有粗扁齿突一个。生殖球近端内侧有两个粗大突起，一呈镰刀状，另一呈短筒状。

生活在榕树气生根丛间，夜间捕食，网不规则。蜘蛛停息于网上时，身体腹面朝上，时而作左右摆动。已知分布于云南（勐腊）。

Song, D., Zhu, M., and Chen, J. 1999. The Spiders of China. Hebei Science and Technology Publishing House. 640 pp., 4 plates.

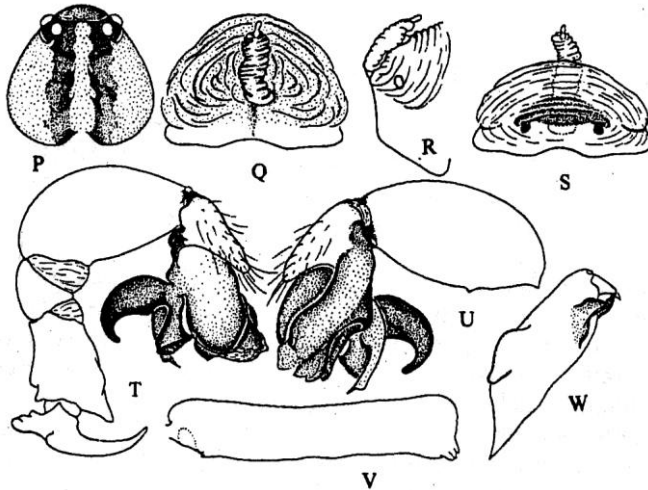
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Spermophora elongata Yin et Wang, 1981 (fig. 26P—W)

Spermophora elongata Yin & Wang, 1981: 380, f. 2; Hu, 1984: 80, f. 73; Song, 1987: 112, f. 75.

Distribution: Yunnan (Mengla).

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Huber, B. A. 2001. The pholcids of Australia (Araneae: Pholcidae): Taxonomy, biogeography, and relationships. Bull. Amer. Mus. Nat. Hist. 260: 1-144.

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(e.g., *P. ciliatus* Lawrence) misplaced. At the same time, some species currently placed in other genera might actually be *Pholcus* (e.g., *Spermophora elongata* Yin and Wang; *S.*

Zhang, F., Zhu, M.S. 2009. A review of the genus *Pholcus* (Araneae: Pholcidae) from China. Zootaxa 2037: 1-114.

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Pholcus elongatus (Yin & Wang, 1981), new combination
(Fig. 10)

Spermophora elongata Yin & Wang 1981: 380, f. 2A–G. Hu, 1984: 80, f. 73.1–7. Song, 1987: 112, f. 75. Song, Zhu & Chen, 1999: 65, f. 26P–W.

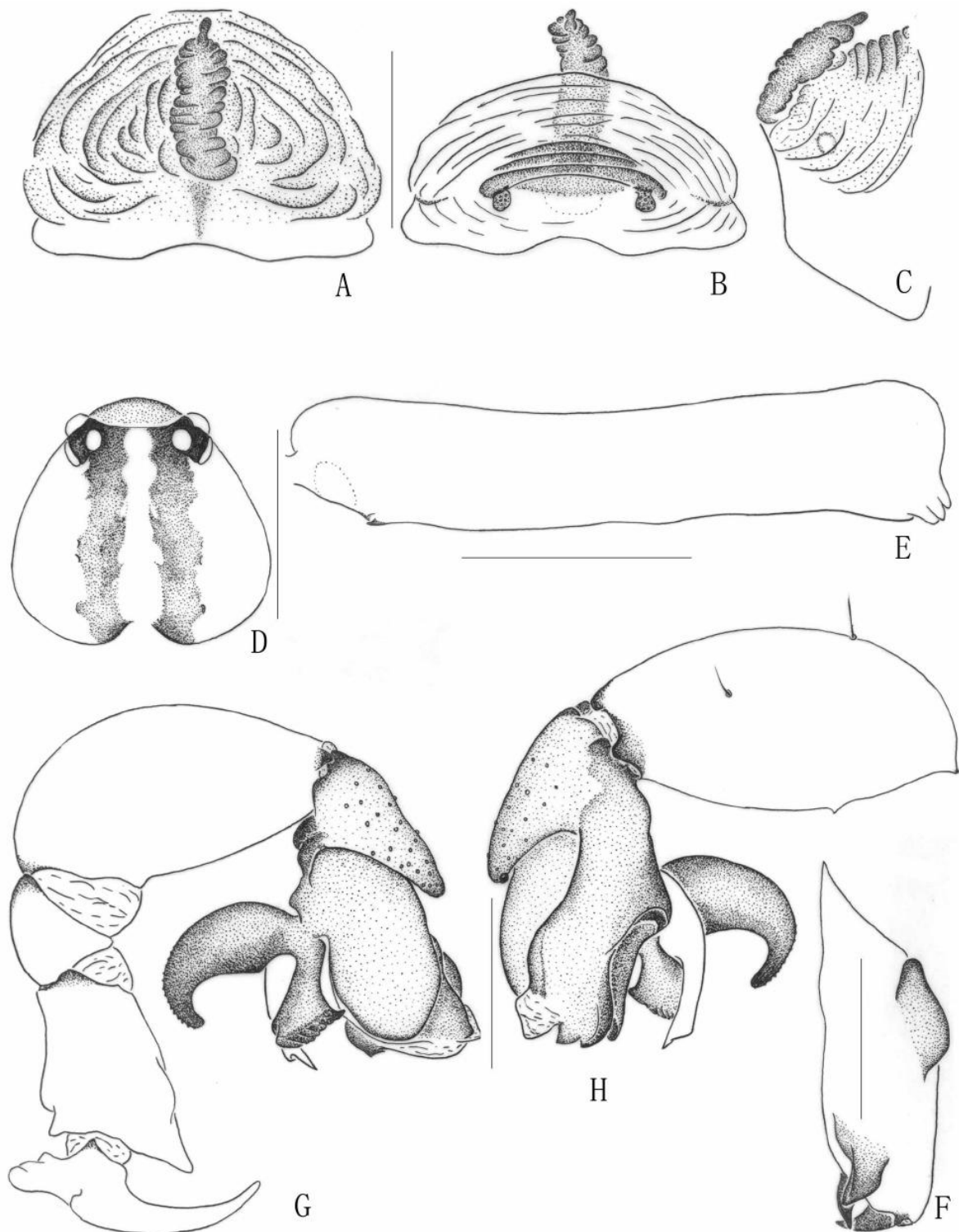


FIGURE 10. *Pholcus elongatus* (Yin & Wang, 1981) (illustrations modified from Song *et al.* 1999). A. epigynum, ventral view. B. same, dorsal view. C. same, lateral view. D. male prosoma, dorsal view. E. male opisthosoma, lateral view. F. male left chelicera, frontal view. G. left palp, prolateral view. H. same, retrolateral view. Scale lines: 1.0mm (D, E), 0.5mm (A–C, F–H)

Diagnosis. Distinguished from most known congeners by the absence of AME (Fig. 10D) and slender and long opisthosoma (Fig. 10E); by the shape of the uncus and appendix (Figs. 10G–H); also by the wrinkled, worm-shaped apophysis of epigynum, which is long and bends anteriorly (Figs. 10A and 10C).

Redescription. Male (Mt. Wuyi), total length 3.9: cephalothorax 0.8 long, 1.0 wide; abdomen 3.1 long, 0.5 wide. Leg I: 31.5 (8.0+0.5+7.4+13.6+2.0), tibia II: missing, tibia III: missing, tibia IV: 4.7; tibia I L/D: 62. Carapace short, broad and almost circular as in Fig. 10D, ochre, with pair of brown longitudinal stripes connecting to ocular area. Cephalic region slightly raised, ocular area dark yellow. Clypeus 0.40, dark ochre, without marks. AME missing, other six eyes in two triads, each triad slightly elevated. Diameter ALE 0.13, PME 0.08, PLE 0.10. Chelicerae as in Fig. 10F, with pair of black apophyses distally and pair of unsclerotized thumb-shaped apophyses proximolaterally. Labium and endites light gray. Sternum gray, without markings. Legs exceedingly long and slender, pale, without dark rings. Abdomen long cylindrical, pale gray, dorsum without brown spots as in Fig. 10E. Venter pale gray. Palps as in Figs. 10G and 10H, bulb with hook-shaped uncus and broom-like appendix, trochanter with long ventral apophysis. Palpal tarsal organ capsulate, on conical projection of cymbium.

Female: in general very similar to male. Body length 4.2–4.3. A specimen (Mt. Wuyi) total length 4.3: cephalothorax 1.0 long, 1.0 wide; abdomen 3.3 long, 1.0 wide. Tibia I 6.6. AME missing, other six eyes in two triads. Epigynum a rough semicircle as in Fig. 10A, with a long worm-shaped apophysis extending forward as in Fig. 10C. Dorsal view as in Fig. 10B, with a small sclerotized arch anteriorly and a pair of very small, oval pore plates.

Distribution. Yunnan, Fujian, Hainan.

Material. Types. Holotype male, ‘allotype’ female, CHINA: Yunnan Province, Mengla County, March 23, 1979, leg. by J. F. Wang (HNU), not examined.

Material examined. CHINA: **Fujian:** Wuyishan City, Mt. Wuyi, collector and date unknown, 1♂, 2♀ (MHBU). **Hainan:** Ledong County, Mt. Jianfengling, December 13, 2003, leg. M. S. Zhu and J. X. Zhang, 1♀ (MHBU).

Remark. Yin & Wang (1981) described *Spermophora elongata* as a new species to science according to a male (holotype) and a female (‘allotype’) collected from Mengla County, Yunnan Province. They assigned it to the genus *Spermophora* solely due to the absence of AMEs; *Spermophora* is a genus of six-eyed spiders. Huber (2001) suggested that *Spermophora elongata* Yin & Wang might actually be better placed in *Pholcus* based on the illustrations and the newest research progress in the classification of pholcids. We examined specimens of *S. elongata* collected from Mt. Wuyi, Fujian Province, China, and considering the account and illustrations in the original paper, we also agree with Huber’s opinion and transfer *S. elongata* Yin & Wang to *Pholcus*.

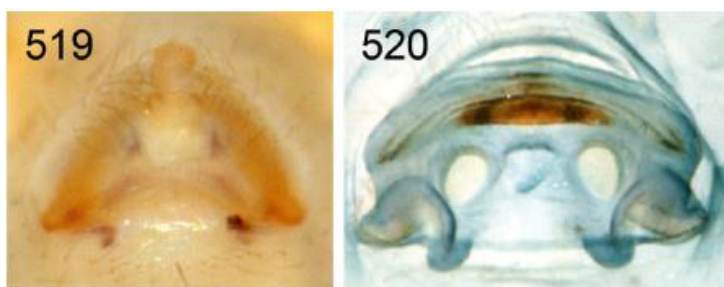
Huber, B. A. 2011. Revision and cladistic analysis of *Pholcus* and closely related taxa (Araneae, Pholcidae). Bonner zool. Monographien 58: 1-510.

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497, 498. *Ph. sabah*, male, dorsal and lateral views. 499-501. *Ph. elongatus*, male, dorsal and lateral views; female abdomen, ventral view. 502-504. *Ph. andulau*, male, dorsal and lateral views; female abdomen, ventral

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519, 520. *Ph. elongatus*.

Pholcus elongatus (Yin & Wang, 1981)

Figs. 499-501, 519, 520, 542-546

Spermophora elongata Yin & Wang 1981: 380-382, figs. 2, 2a-g. Hu 1984: 80-81, figs. 73, 73.1-7 (figures copied from Yin & Wang 1981). Song 1987: 112-113, figs. 75a-d (figures copied from Yin & Wang 1981). Song *et al.* 1999: 65-66, figs. 26p-w. Huber 2001: 109 (transfer to *Pholcus* suggested).

Pholcus elongatus: Zhang & Zhu 2009a: 25-28, figs. 10a-h (figures copied from Song *et al.* 1999).

Types. Male holotype and female "allotype" from China, Yunnan Prov., Mengla [21°29'N, 101°35'E], 23.iii.1979 (J.F. Wang), in Hunan Normal University, Changsha, China; not examined.

Diagnosis. Distinguished from congeners by the combination of absence of AME, shape of male palp (Figs. 542, 543; long trochanter apophysis, ventral modification on femur, shapes of bulbal apophyses and procursus), and long extensible scape on female epigynum (Fig. 545).

Male (Luang Nam Tha). Total body length 4.5, carapace width 0.9. Leg 1: 33.6 (8.5 + 0.5 + 8.7 + 13.9 + 2.0), tibia 2: 5.1, tibia 3: 2.9, tibia 4: 4.8; tibia 1 L/d: 82. Habitus as in Figs. 499 and 500. Carapace laterally pale ochre-yellow, medially a wide brown band including ocular area and clypeus, sternum whitish, legs pale ochre-yellow, patellae and tibia-metatarsus joints brown, abdomen monochromatic pale gray (cf. female, Fig. 501). Distance PME-PME 405 µm, diameter PME 105 µm, distance PME-ALE 35 µm, no trace of AME. Ocular area slightly elevated, each triad on short stalk, some stronger hairs on posterior side. No thoracic furrow (only dark median line anteriorly); clypeus unmodified. Chelicerae as in Fig. 544, strong distal apophyses apparently without

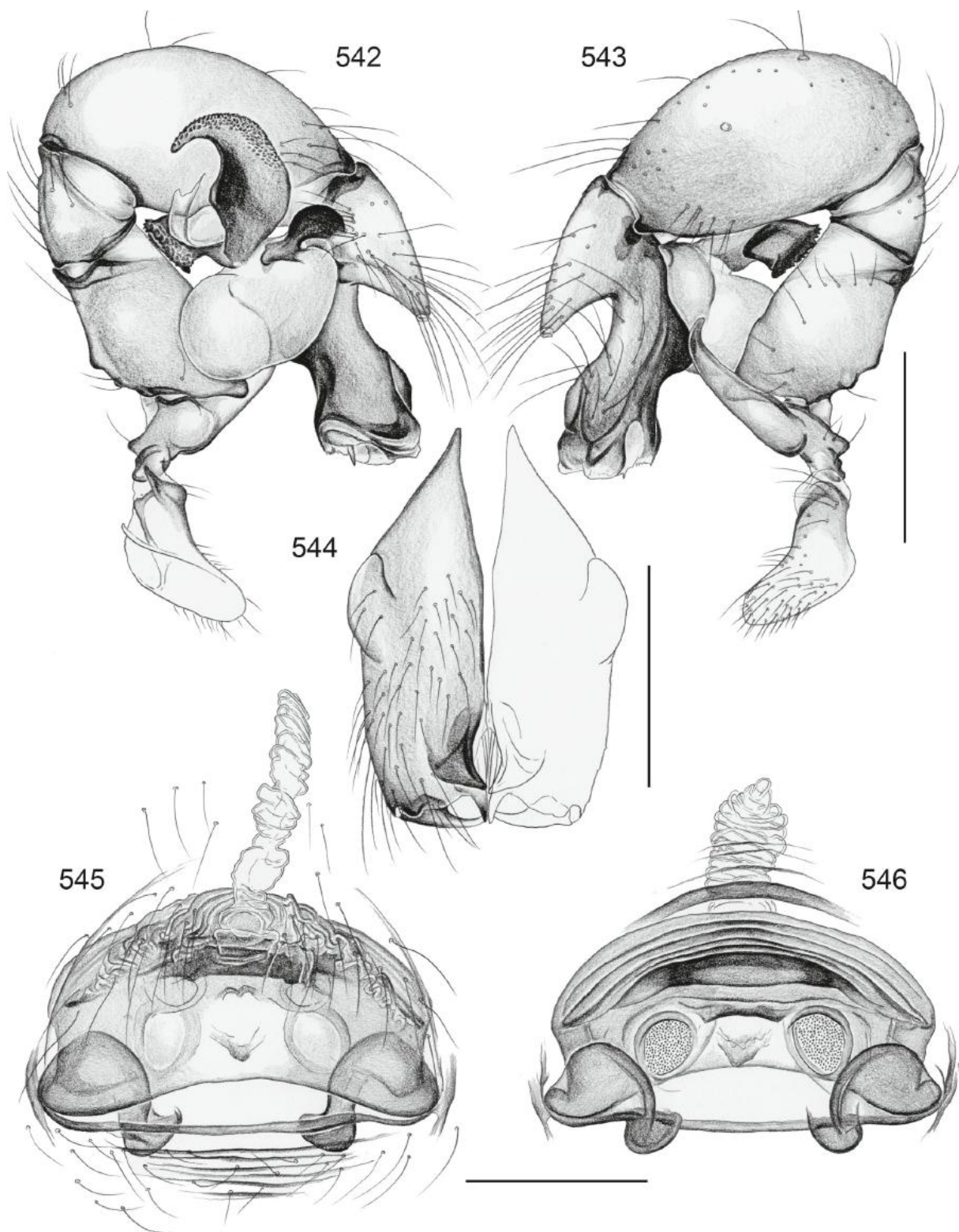


FIG. 542-546. *Pholcus elongatus*. 542, 543. Left male palp, prolateral and retrolateral views. 544. Male chelicerae, frontal view. 545, 546. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.5 (542, 543), 0.3 (544-546).

modified hairs, proximally with one pair of large lateral apophyses. Sternum wider than long (0.70/0.55), unmodified. Palps as in Figs. 542 and 543, coxa unmodified, trochanter with long ventral apophysis curved distally and small dorsal bulge, femur with large ventral protuberance directed proximally and two low humps dorsally, procursus rather simple, very wide in dorsal view, bulb with distally hooked uncus, short transparent embolus, short but wide appendix set with scales. Legs without spines and curved hairs, few vertical hairs; retrolateral trichobothrium on tibia 1 at 4%; prolateral trichobothrium absent on tibia 1, present on other tibiae; tarsal pseudosegments only distally fairly distinct.

Variation. Tibia 1 in one other male: 8.6. Apparently with variation in carapace pattern but this needs to be checked: the original description illustrates a male with monochromous dark carapace. Zhang & Zhu (2009a: fig. 10d) illustrate a “male” carapace with a pair of bands (as is typical for females of this species, see below), but their figure is a copy of fig. 26p in Song *et al.* (1999) which may be from a female rather than a male.

Female. In general similar to male but with different pattern on carapace: two brown bands behind eye triads, entire or ‘broken’; triads closer together (distance PME-PME 225 μ m). Tibia 1 in 2 females: 7.1, 7.7. Epigynum a slightly sclerotized semicircular area with long, extensible scape (Figs. 519, 545); internal genitalia as in Figs. 520 and 546.

Distribution. Known from southern China (Yunnan, Fujian, Hainan) (Yin & Wang 1981, Zhang & Zhu 2009a), and northern Laos (Fig. 529).

Material examined. LAOS: *Luang Nam Tha Prov.*: Luang Nam Tha, between Ban Tavan 1 (580 m a.s.l.) and Ban Tavan 2 (660 m a.s.l.) ($-20^{\circ}58.7'N$, $101^{\circ}28.8'E$), valley with stream, disturbed primary forest, by hand, sieving, sweep net, 9.i.2004 (P. Jäger, V. Vedel), 1♂2♀ 3 juvs. in SMF; Muang Sing, Nam Det ($21^{\circ}10.0'-10.2'N$, $101^{\circ}14.4'-14.7'E$), 820-1100 m a.s.l., secondary forest, along path, soil and vegetation, hand, sweep net, sieving, 6.xi.2004 (P. Jäger, V. Vedel), 1♀ in SMF. *Luang Prabang Prov.*: Pak Ou ($20^{\circ}03'N$, $102^{\circ}13'E$), jungle, outside caves, by hand, 12.xi.2004 (P. Jäger, V. Vedel), 1♂1♀ in SMF.