

## *Pholcus triangulatus* Zhang & Zhang, 2000

Zhang, F., Zhang, J. 2000. Three new species and a new discovery of female of genus *Pholcus* from Taihang Mts., China. J. Hebei Univ. 20(2): 151-156.

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三角幽灵蛛, 新种 *Pholcus triangulatus* sp. nov. (图 3)

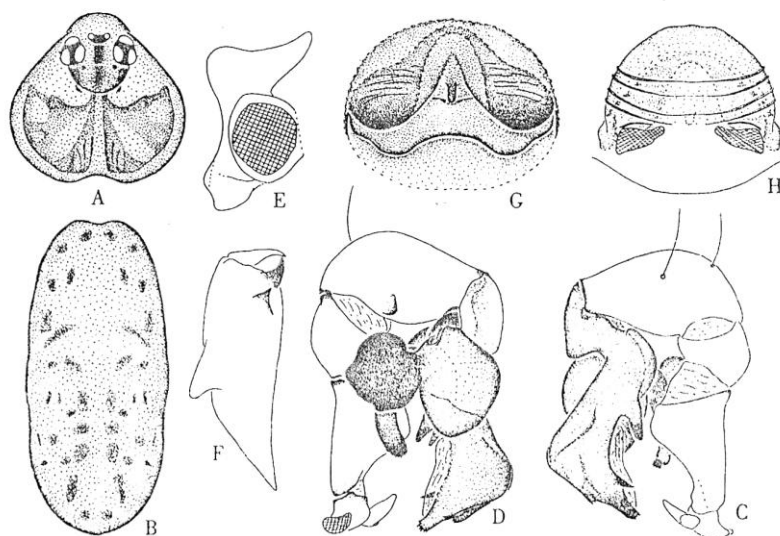


图 3 三角幽灵蛛 *Pholcus triangulatus* sp. nov.

A. 雄蛛头胸部背面观; B. 雄蛛腹部背面观; C. 雄蛛左触肢器外面观;  
D. 雄蛛左触肢器内侧面观; E. 雄蛛触肢转节; F. 雄蛛螯肢; G. 外雌器外面观 H. 外雌器内面观

正模♂, 副模 12 ♂♂, 15♀♀, 河北省涞源县白石山, 1999-07-19, 海拔 1 000~1 200 m, 张锋、张俊霞采。

雄蛛(正模)体长 5.00。头胸部长 1.58, 宽 1.80; 腹部长 3.15, 宽 1.35。头部隆起, 头区中央为一褐色纵带, 后侧眼后方各有 1 小块褐色斑。胸部黄色, 中线两侧各有 1 块棕色花斑。额高 0.37。从背面观察, 两眼列均后凹, 前中眼间距小于前中侧眼间距(0.05:0.08); 后中眼间距大于后中侧眼间距(0.25:0.03); 中眼域后边大于前边(0.48:0.26), 长小于宽(0.33:0.48)。前中眼<后中眼<后侧眼<前侧眼(0.09:0.14:0.16:0.17)。螯肢前、后齿堤各有 1 齿, 螯肢前面近中央位置有 1 个突起。颚叶黄褐色, 呈八字形。下唇灰褐色, 端部色淡。胸板浅棕色, 其中央有 1 淡黄色斑, 在其两侧缘各有 3 个淡黄色斑。步足极细长, 黄色; 有褐色环形斑。步足测量: I 41.73 (10.35+11.02+17.66+2.70); II 29.88 (8.46+8.06+11.70+1.66); III 21.64 (7.56+5.40+7.47+1.21); IV 26.23(7.47+7.20+10.12+1.44)。步足式: 1, 2, 4, 3。腹部长卵圆形, 灰白色, 背面有对称的灰褐色斑点, 腹面黄白色, 在生殖沟上方有 2 对称灰褐色斑。纺器灰褐色。

雌蛛体长 4.66~5.32。一雌蛛体长 5.00, 头胸部长 1.39, 宽 1.50; 腹部长 3.33, 宽 1.49。其余特征似雄蛛。步足测量: I 25.74(6.53+6.97+10.04+2.20); II 18.70(4.94+5.48+6.98+1.30);

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III 13.68(3.92+3.82+4.95+0.99); IV 18.63(5.40+5.31+6.84+1.08)。

本新种近于棒斑幽灵蛛 *Pholcus clavimaculatus* Zhu et Song, 1999, 但有如下两点区别: (1) 外雌器和触肢器结构不同; (2) 转节距的形状不同。故为一新种。

词源学 本新种的种名以雄蛛触肢跗前突的形状而拟定。

***Pholcus triangulatus* sp. nov.** (fig. 3)

Holotype ♂, paratypes 12 ♂♂, 15 ♀♀, Baishi Mt., Laiyuan County, Hebei Province, July 19, 1999, alt. 1 000 ~ 1 200 m, Zhang Feng and Zhang Junxia leg..

Male holotype. Total body length 5.00. Cephalothorax 1.58 long, 1.80 wide; abdomen 3.15 long, 1.35 wide.

Female paratypes. Total length of bodies 4.66 ~ 5.32. A specimen measured, total body length 5.00. Cephalothorax 1.39 long, 1.50 wide; abdomen 3.33 long, 1.49 wide. Color and markings as in male.

This new species resemble *Pholcus clavimaculatus* Zhu et Song, 1999, but can be readily distinguished from the latter by: (1) Structures of epigynum and male palp is different; (2) The spur of trochanter is different.

Etymology: The specific name is due to the structure of protarsus of male palp.

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

***Pholcus triangulatus* Zhang & Zhang, 2000**  
(Fig. 54)

*Pholcus triangulatus* Zhang & Zhang 2000: 153, f. 3A–H.

**Diagnosis.** Among its close *Pholcus* relatives (see the remark of *P. alloctospilus*), this species is very similar to *P. clavimaculatus* and *P. beijingensis* in the shape of the palpal bulb and epigynum, all without appendices of palpal bulb (Fig. 54F) and with an epigynal knob-shaped apophysis (Fig. 54A). It can be distinguished from these two species by chelicerae without a pair of apophyses proximocentrally (Fig. 54E) and by the triangular tip of the procurus (Fig. 54G), also from *P. beijingensis* by the shorter ventral apophysis of the trochanter and a nearly round uncus (Figs. 54F–G).

**Redescription.** Male (holotype), total length 4.7: cephalothorax 1.6 long, 1.8 wide; abdomen 3.2 long, 1.4 wide. Leg I: 41.7 (10.4+0.9+10.1+17.7+2.7), tibia II: 7.4, tibia III: 4.8, tibia IV: 6.5; tibia I L/D: 63. Prosoma shape as in Fig. 54C. Carapace short, broad and almost circular, ochre, with pair of brown marks broadly connecting to ocular area. Cephalic region raised, with a brown longitudinal stripe and a pair of brown spots centrally, ocular area dark yellow. Clypeus 0.37, slightly ochre, without marks. Distance AME–AME 0.05. Diameter AME 0.09, ALE 0.17, PME 0.14, PLE 0.16. Chelicerae as in Fig. 54E, with pair of black apophyses

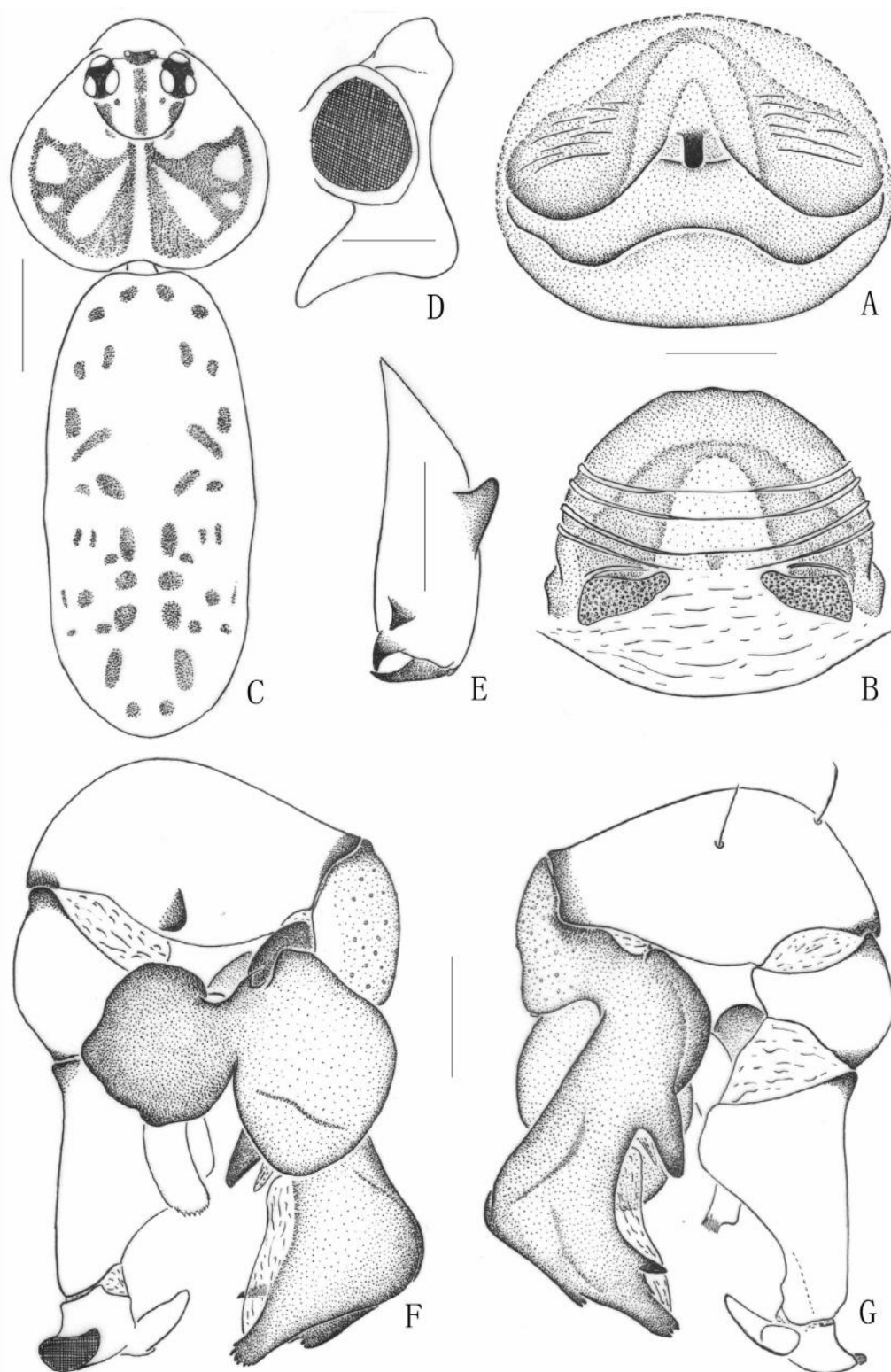
distally and pair of unsclerotized thumb-shaped apophyses proximolaterally. Labium pale brown. Endites light yellow. Sternum slightly ochre, with some regular brown marks. Femora, patellae and tibiae ochre, with dark rings, metatarsi and tarsi brown. Abdomen cylindrical, pale ochre, dorsum with many brown spots as in Fig. 54C. Venter pale brown, without marks. Palps as in Figs. 54F–G, bulb with nearly round uncus, without appendix, procursus triangular.

**Variation.** Tibia I in 12 male paratypes: 9.3–10.1 (mean 9.8). Body length in 12 male paratypes: 4.4–4.8.

Female: in general very similar to male. Total length of bodies 4.5–4.8. A paratype measured (Mt. Baishi), total length 4.7: cephalothorax 1.4 long, 1.5 wide; abdomen 3.3 long, 1.5 wide. Tibia I: 6.1. Distance AME–AME 0.05. Epigynum roughly rounded as in Fig. 54A, with a small knob-shaped apophysis on the median place. Dorsal view as in Fig. 54B, with a rainbow-shaped sclerotized arch anteriorly and a pair of triangular pore plates.

**Distribution.** Known from type locality only.

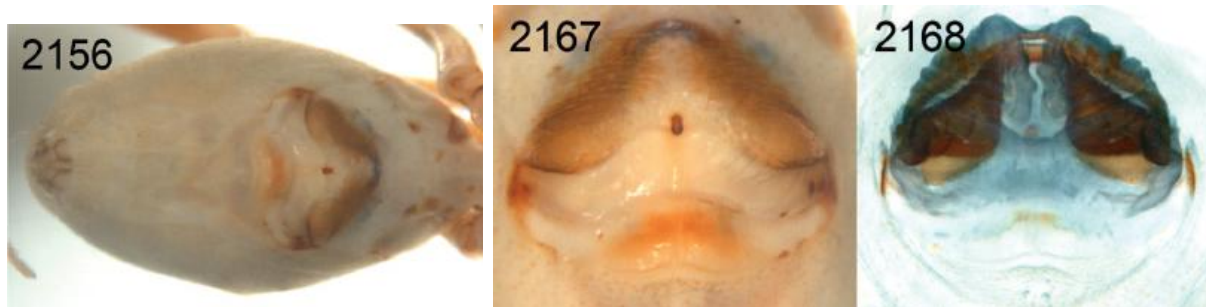
**Material examined.** CHINA: **Hebei:** Laiyuan County, Mt. Baishi, July 19, 1999, leg. F. Zhang and J. X. Zhang, male holotype, 12♂, 15♀ paratypes (MHBU); Tang County, Mt. Damao, May 6, 2001, leg. J. X. Zhang, 8♂, 11♀ (MHBU).



**FIGURE 54.** *Pholcus triangulatus* Zhang & Zhang, 2000 (illustrations modified from Zhang & Zhang 1999). A. epigynum, ventral view. B. same, dorsal view. C. male body, dorsal view. D. trochanter of male left palp, retrolaterodorsal view. E. male left chelicera, frontal view. F. left palp, prolateral view. G. same, retrolateral view. Scale lines: 1.0mm (C), 0.5mm (A, B, E–G), 0.2mm (D).

**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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2156. *Ph. triangulatus*, female abdomen, ventral view.

2167, 2168. *Ph. triangulatus*.

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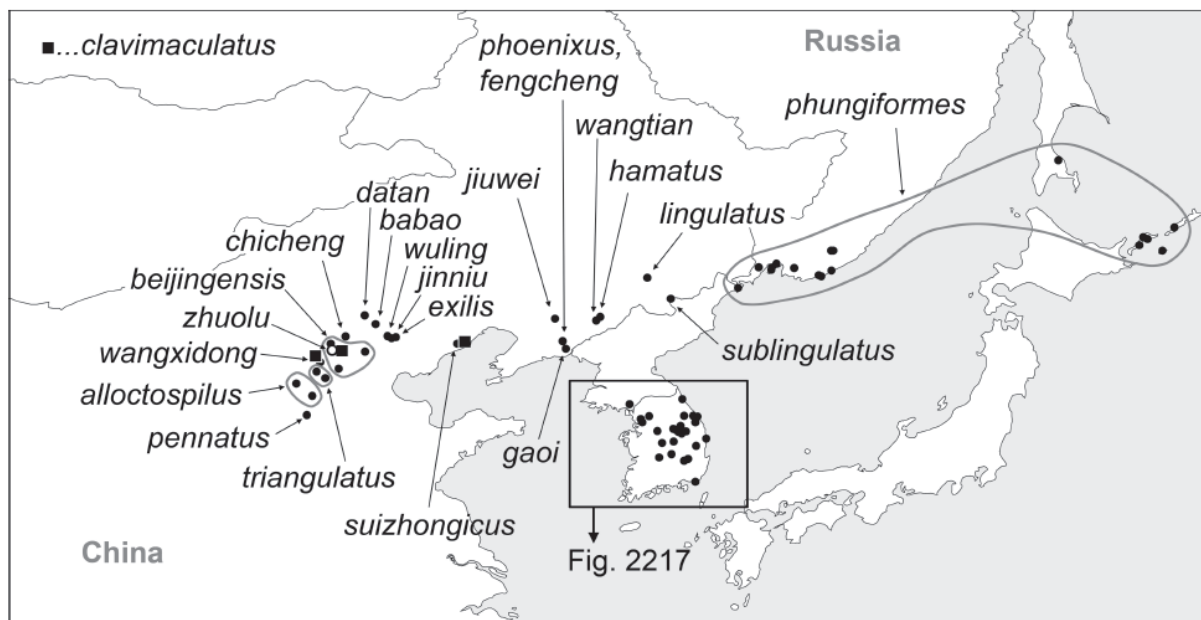


FIG. 2216. Known distribution of the *Pholcus phungiformes* species group. For Korean species, see Fig. 2217.

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*Pholcus triangulatus* Zhang & Zhang, 2000

Figs. 2156, 2167, 2168, 2233-2237

*Pholcus triangulatus* Zhang & Zhang 2000: 153-154, 156, figs. 3a-h. Zhang & Zhu 2009a: 93-94, figs. 54a-g (copied from Zhang & Zhang 2000). Zhang & Zhu 2009b: figs. 6-8, 11, 12 (exact copies of figures in Zhang & Zhu 2009a).

*Types.* Male holotype, 12♂15♀ paratypes from China, Hebei Prov., Laiyuan County, Mt. Baishi

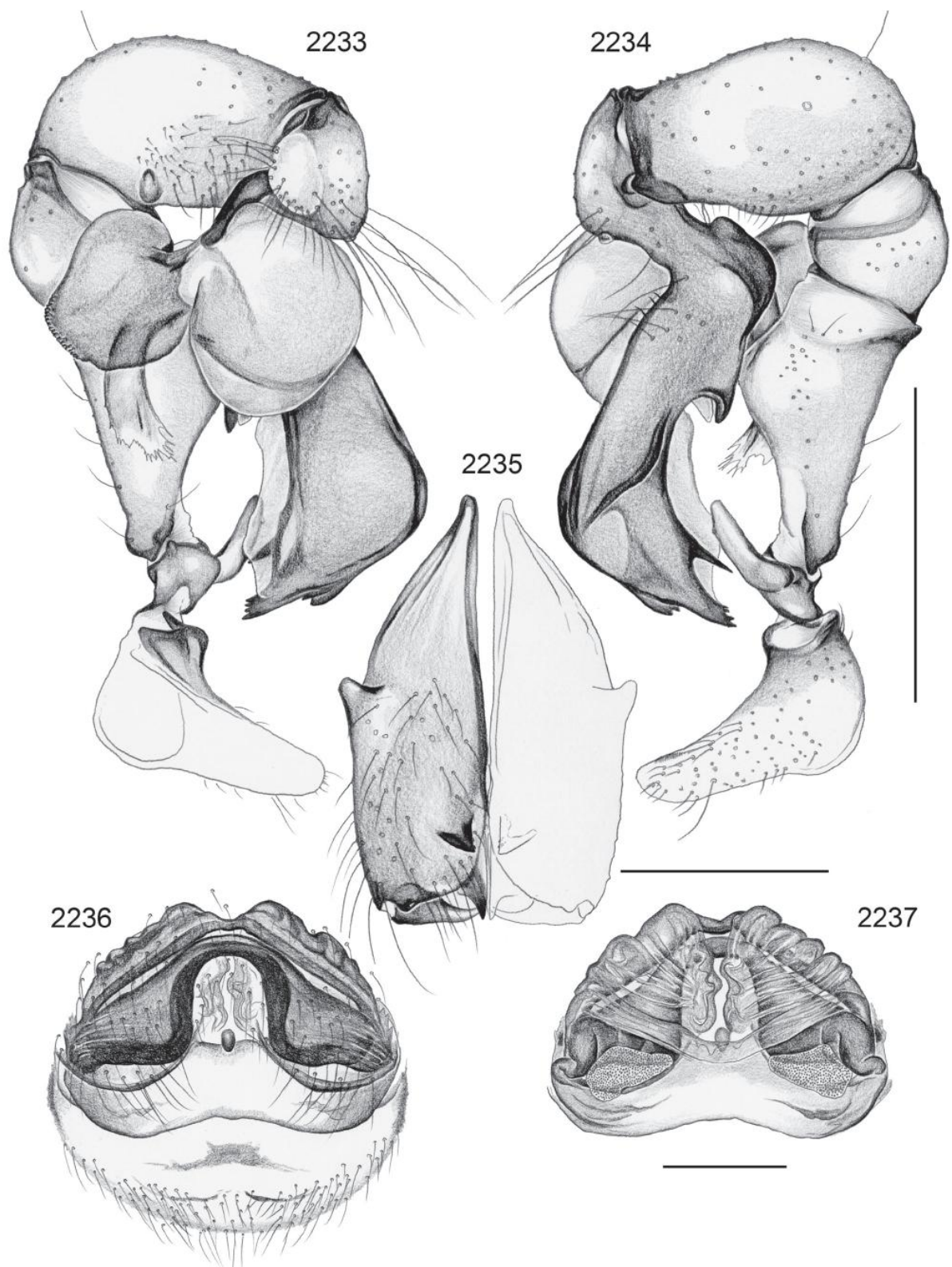


FIG. 2233-2237. *Pholcus triangulatus*. 2233, 2234. Left male palp, prolateral and retrolateral views. 2235. Male chelicerae, frontal view. 2236, 2237. Cleared female genitalia, ventral and dorsal views. Scale lines: 1.0 (2233, 2234), 0.5 (2235-2237).

[~39°15'N, 114°40'E], 800-1200 m a.s.l., 19.vii.1999 (F. & J. Zhang), in MHBU (1♂1♀ paratypes examined).

*Diagnosis.* Easily distinguished from congeners without appendix by distinctive shape of procursus (Fig. 2234) and female internal genitalia (Figs. 2168, 2237; distinctive internal structures).

*Male* (paratype). Total body length 5.1, carapace width 1.7. Leg 1: 44.3 (10.9 + 0.8 + 11.4 + 18.6 + 2.6), tibia 2: 7.8, tibia 3: 5.3, tibia 4: 7.1; tibia 1 L/d: 70. Habitus similar to *Ph. pennatus* (cf. Figs. 2152, 2153). Carapace ochre-yellow with distinct brown pattern, ocular area with lateral and median brown marks, clypeus with pair of brown marks under ocular area, sternum light brown, yellowish marks near bases of coxae, pale whitish behind labium, legs light brown, femora and tibiae with indistinct darker rings subdistally and with pale tips, abdomen gray, many dark spots dorsally, ventrally only genital area brown (cf. female, Fig. 2156). Distance PME-PME 265 µm, diameter PME 140 µm, distance PME-ALE 55 µm, distance AME-AME 60 µm, diameter AME 95 µm. Ocular area moderately elevated, few stronger hairs posteriorly. No thoracic furrow; clypeus unmodified. Chelicerae as in Fig. 2235, with two tiny modified hairs on each distal apophysis. Sternum wider than long (1.25/0.90), unmodified. Palps as in Figs. 2233 and 2234, coxa unmodified, trochanter with short retrolateral hump and longer ventral apophysis, femur with low proximo-dorsal hump and very distal ventral protuberance, tibia with prolatero-ventral modification, procursus very distinctive, with three small spines dorsally, bulb with large flat uncus, weakly sclerotized embolus, without appendix. Legs without spines and curved hairs, few vertical hairs (most hairs missing); retrolateral trichobothrium on tibia 1 at 5%; prolateral trichobothrium absent on tibia 1, present on other tibiae. Tarsal pseudosegments mostly indistinct, only distally ~10 quite distinct.

*Female.* In general similar to male, triads closer together (distance PME-PME 195 µm), clypeus darker brown, rings on legs more distinct, with additional dark rings on femora and tibiae and brown ventral marks on femora; tibia 1: 7.5. Epigynum with distinctive anterior plate, dark internal arc visible through cuticle, with sclerotized 'knob', weakly sclerotized posterior plate (Figs. 2167, 2236); internal genitalia as in Figs. 2168 and 2237.

*Distribution.* Known from type locality and Mt. Damao [~39°N, 115°E] (Zhang & Zhu 2009a), Hebei Province, China (Fig. 2216).

*Material examined.* CHINA: Hebei Prov.: Laiyuan County, Mt. Baishi: 1♂1♀ paratypes above.