

Pholcus linzhou 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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林州幽灵蛛, 新种 *Pholcus linzhou* sp.nov. (图 2)

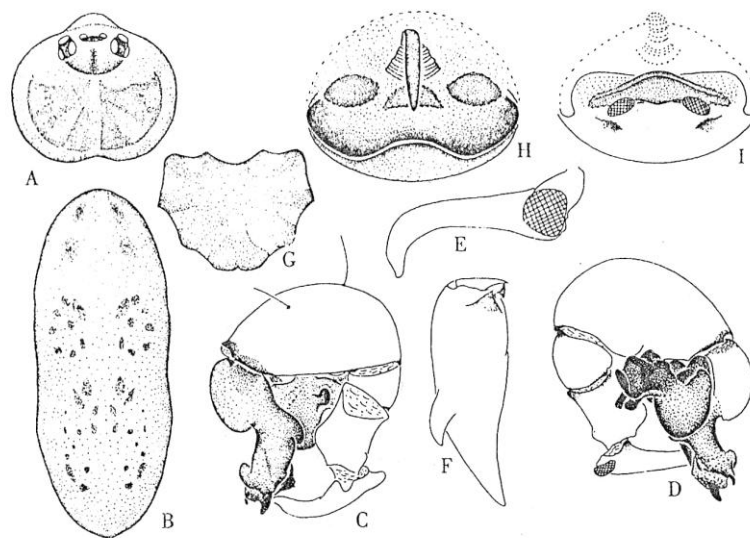


图 2 林州幽灵蛛 *Pholcus linzhou* sp.nov.

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

正模♂, 副模5♂♂, 3♀♀, 河南省林州市红旗渠, 1999-05-11, 海拔500~600 m, 张锋采; 副模11♂♂, 5♀♀. 河北省武安市列江, 1999-06-28, 海拔700~900 m, 张锋采。

雄蛛(正模)体长5.22。头胸部长1.49, 宽1.80; 腹部长3.47, 宽1.53。头部隆起, 中央具1灰褐色纵带位于前中眼的后方, 其两侧各有数根长毛。胸部黄色, 中线两侧各有1块褐色花斑, 中线前中部有1纵列毛。额较高(0.50), 向前倾斜。从背面观察, 两眼列均后凹, 前中眼间距小于前中侧眼间距(0.04:0.05); 后中眼间距大于后中侧眼间距(0.26:0.07); 中眼域后边大于前边(0.47:0.25), 长小于宽(0.34:0.47)。前中眼<前侧眼=后中眼<后侧眼(0.09:0.14:0.14:0.16)。螯肢浅棕色, 前、后齿堤各有1齿, 前齿堤齿上又有1小齿, 螯肢前面近中央位置侧缘有1个突起。颚叶黄褐色, 倾斜。下唇黄褐色, 端部色淡。胸板浅棕色, 中央有1个、两侧各有3个黄斑。步足黄色, 有棕色环纹。步足测量:I 36.04(9.14+9.45+15.07+2.38);

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II 25.16(7.20+6.57+9.81+1.58); III 17.78 (5.40+4.73+6.75+0.90); IV 24.93(7.11+6.75+9.81+1.26)。步足式:1,2,4,3。腹部长卵形, 灰黄色, 背面两侧有对称的灰黑色斑点, 腹面黄白色, 无斑纹。纺器黄褐色。

雌蛛体长5.11~5.63。一雌蛛体长5.34。头胸部长1.48, 宽1.50; 腹部长3.69, 宽1.80。额高0.58。其余特征似雄蛛。步足测量: I 29.47(7.65+8.42+11.02+2.38); II 21.23(5.85+6.25+7.78+1.35); III 17.77 (4.95+4.36+7.56+0.90); IV 21.10(6.25+5.85+8.10+0.90)。

本新种近于豫幽灵蛛 *Pholcus henanensis* Zhu et Mao, 1983, 但外雌器和触肢器的结构均不同。故为一新种。

词源学 本新种的种名以模式标本的产地而拟定。

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Pholcus linzhou sp. nov. (fig. 2)

Holotype ♂, paratypes 5♂♂, 3♀♀, Hongqiqu, Linzhou County, Henan Province, May 11, 1999, alt. 500~600 m, collected by Zhang Feng. Paratypes 11♂♂, 5♀♀, Liejiang, Wuan County, Hebei Province, June 28, 1999, alt. 900~1100 m, collected by Zhang Feng.

Male holotype. Total body length 5.22. Cephalothorax 1.49 long, 1.80 wide; abdomen 3.47 long, 1.53 wide.

Female paratypes. Total length of bodies 5.11~5.63. A specimen measured, total body length 5.34. Cephalothorax 1.48 long, 1.50 wide; abdomen 3.69 long, 1.80 wide. Color and markings as in male.

This new species is closely related to *Pholcus henanensis* Zhu et. Mao, 1983, but differs from the latter in structures of epigynum and male palp.

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Etymology. The specific name refer to the type locality.

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

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(Fig. 25)

Pholcus linzhou Zhang & Zhang 2000: 152, f. 2A-I.

Diagnosis. This species, one of seven similar species (see remark *P. henanensis*), is very similar to *P. mianshanensis* sp. nov. in the shape of the epigynum, both with long whip-shaped apophysis (Figs. 25A and 16A). It differs from the latter by the shape of the tip of the procurus (Figs. 25G-H), and by the mountain range-shaped uncus (Fig. 25G).

Redescription. Male (holotype) total length 5.0: cephalothorax 1.5 long, 1.8 wide; abdomen 3.5 long, 1.5 wide. Leg I: 36.1 (9.1+0.8+8.7+15.1+2.4), tibia II: 6.0, tibia III: 4.2, tibia IV: 6.1; tibia I L/D: 62. Prosoma shape as in Fig. 25C. Carapace short, broad and almost circular, ochre, with pair of brown marks broadly connecting to ocular area. Cephalic region raised, with brown central stripe, ocular area dark yellow. Clypeus 0.50, slightly ochre, without marks. Distance AME-AME 0.04. Diameter AME 0.09, ALE 0.14, PME 0.14, PLE 0.16. Chelicerae as in Fig. 25E, with pair of black apophyses distally and pair of unsclerotized thumb-shaped apophyses proximolaterally. Labium and endites yellow. Sternum slightly ochre, with four pairs of yellow marginal marks and a central mark on it as in Fig. 25F. Femora, patellae and tibiae ochre, with dark rings, metatarsi and tarsi brown. Abdomen cylindrical, pale ochre, dorsum with many of brown spots on it as in Fig. 25C. Venter pale brown, without marks. Palps as in Figs. 25G and 25H, bulb with a mountain range-shaped uncus and short appendix.

Variation. Tibia I in 14 male paratypes (two males missing tibia I): 7.9-9.0 (mean 8.6). Body length in 16 males paratypes: 4.1-5.2.

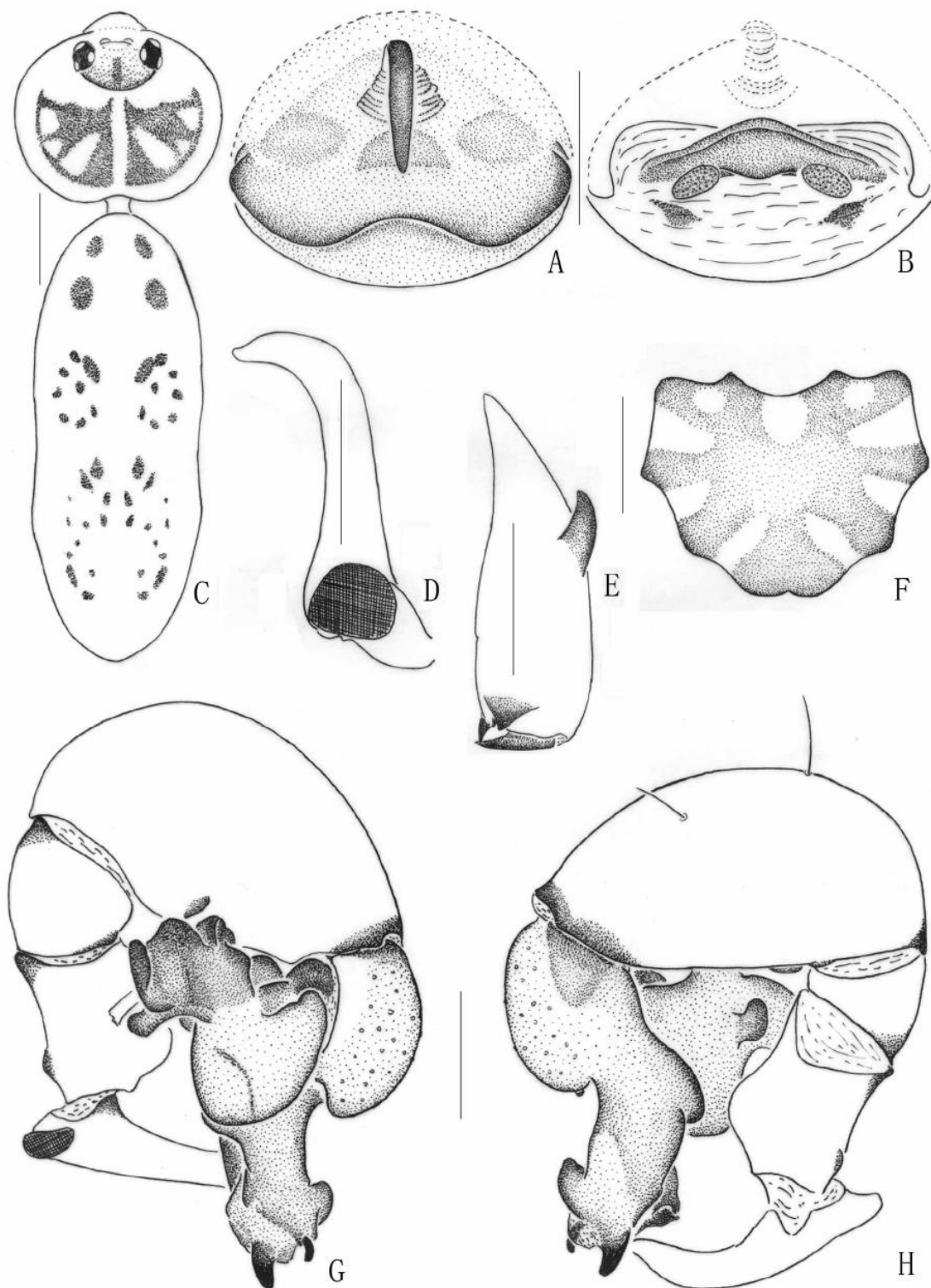


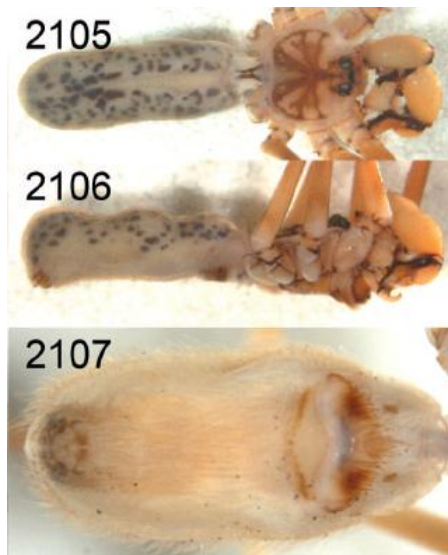
FIGURE 25. *Pholcus linzhou* Zhang & Zhang, 2000 (illustrations modified from Zhang & Zhang 2000). A. epigynum, ventral view. B. same, dorsal view. C. male body, dorsal view. D. trochanter of male left palp, retrolaterodorsal view. E. male left chelicera, frontal view. F. male sternum, ventral view. G. left palp, prolateral view. H. same, retrolateral view. Scale lines: 1.0mm (C), 0.5mm (A–B, D–H).

Female: in general very similar to male. Total length of paratype bodies 4.6–5.5. A paratype measured, total length 5.3: cephalothorax 1.6 long, 1.5 wide; abdomen 3.7 long, 1.8 wide. Tibia I: 7.8. Clypeus 0.58 high. Epigynum roughly semicircular as in Fig. 25A, with a long whip-shaped apophysis on the top and a semicircular dark shadow centrally. Dorsal view as in Fig. 25B, with a mounded sclerotized arch anteriorly and a pair of oval pore plates.

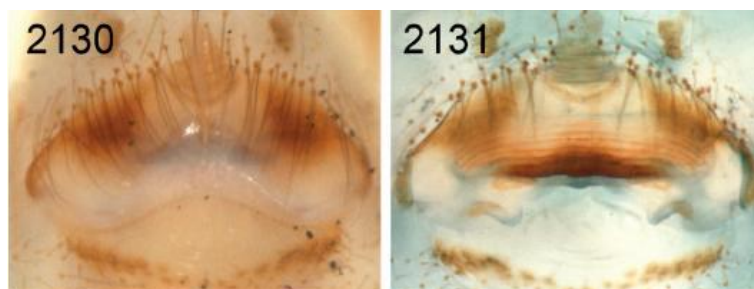
Distribution. Henan, Hebei.

Material examined. CHINA: **Henan**, Linzhou City, Hongqi Canal, May 11, 1999, leg. F. Zhang, male holotype, 5♂, 3♀ paratypes (MHBU); Shibanyan, July 24, 2006, leg. B. S. Zhang, 5♀ (MHBU); Dengfeng County, Sanhuangzhai Scenic Spot, August 6, 2002, leg. J. Y. Yang, 3♂, 2♀ (MHBU). **Hebei**, Wu'an County, Liejiang Town, June 28, 1999, leg. F. Zhang, 11♂, 5♀ paratypes (MHBU).

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



2105-2107. *Ph. linzhou*, male, dorsal and lateral views; female abdomen, ventral view.



2130, 2131. *Ph. linzhou*.

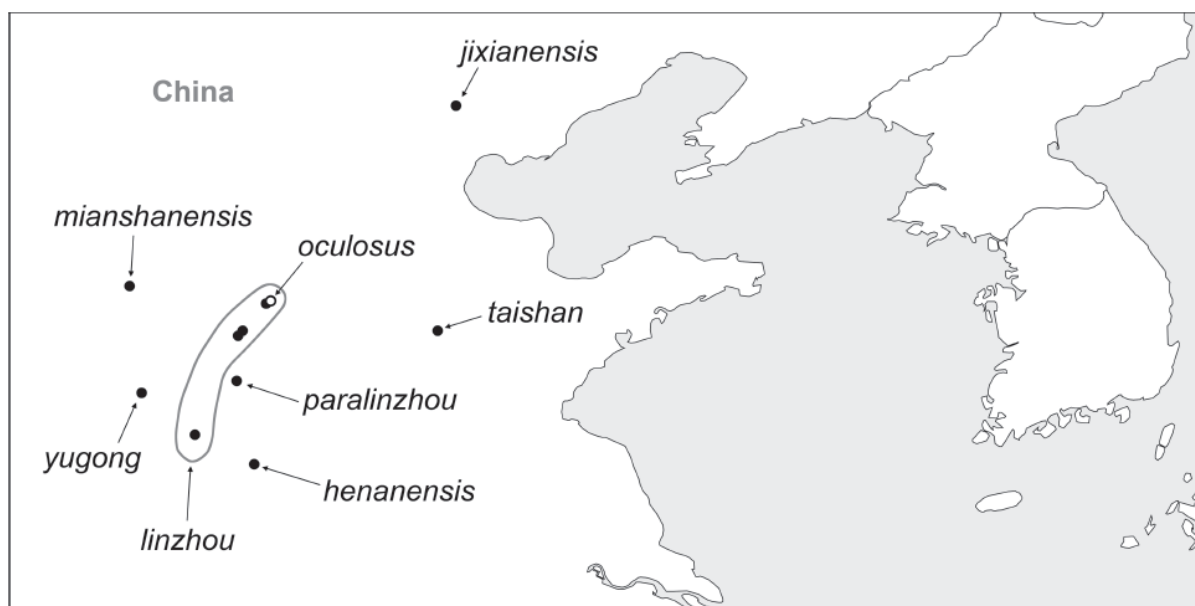


FIG. 2200. Known distribution of the *Pholcus taishan* species group.

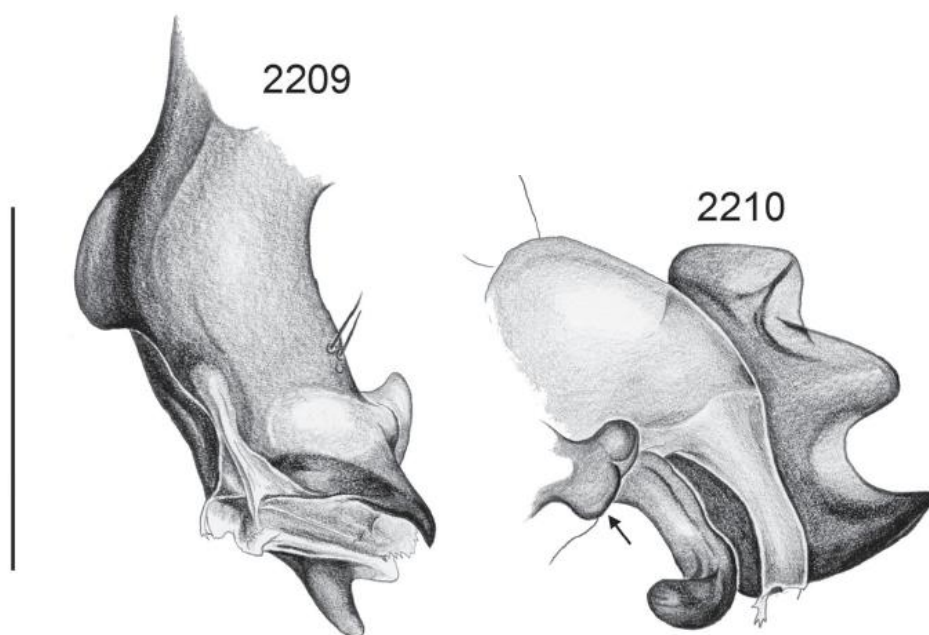


FIG. 2205-2210. *Ph. linzhou* (2209, 2210). Left procuri, prolateral views (at same scale), and left bulbal processes, retrolateral views (at same scale; arrows point at bulbal projection characteristic of the *Ph. taishan* species group). Scale lines: 0.5.

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Figs. 2105-2107, 2130, 2131, 2209-2215

Pholcus linzhou Zhang & Zhang 2000: 152-153, 155-156, figs. 2a-i. Zhang & Zhu 2009a: 50-52, figs. 25a-h (copied from Zhang & Zhang 2000).

Types. Male holotype, 5♂3♀ paratypes from China, Henan Prov., Linzhou County, Hongqi Canal [-36°15'N, 113°48'E], 500-600 m a.s.l., 11.v.1999 (F. Zhang), in MHBU, not examined. 11♂5♀ paratypes from Hebei Prov., Wu'an County [-36°42'N, 114°12'E], Liejiang Town, 900-1100 m a.s.l., 28.vi.1999 (F. Zhang), in MHBU (1♂1♀ paratypes examined).

Diagnosis. Distinguished from similar species with long trochanter apophysis, large proximal male cheliceral apophysis, and long epigynal 'knob' by shapes of procurus, uncus, and appendix (Figs. 2209, 2210) and by female genitalia (Figs. 2130, 2214; shapes of epigynum, 'knob', and pore plates).

Male (paratype). Total body length 5.4, carapace width 1.9. Leg 1: 10.7 + 0.7 + 10.5, metatarsus and tarsus missing, tibia 2: 7.3, tibia 3: 5.1, tibia 4 missing; tibia 1 L/d: 66. Habitus as in Figs. 2105 and 2106. Carapace ochre-yellow with distinctive brown pattern, ocular area slightly darker, frontally with pair of brown marks under AME, sternum light brown, margins darker, slightly lighter marks near coxae 2-4, legs light brown, darker on femora subdistally and tibiae proximally and subdistally, tips of femora and tibiae whitish, abdomen ochre-gray with many black

spots dorsally, ventrally only genital area light brown (cf. female, Fig. 2107). Distance PME-PME 255 µm, diameter PME 135 µm, distance PME-ALE 55 µm, distance AME-AME 55 µm, diameter AME 90 µm. Ocular area elevated, many stronger hairs posteriorly. No thoracic furrow; clypeus unmodified. Chelicerae as in Fig. 2213, distal apophyses possibly with tiny modified hair(s), large lateral apophyses proximally. Sternum wider than long (1.20/0.85), unmodified. Palps as in Figs. 2211 and 2212, coxa unmodified, trochanter with long ventral apophysis distally curved towards retrolateral, femur short, with low humps dorsally, ventrally, and prolatero-ventrally, tibia very large, prolatero-ventrally with low darker hump (hidden by uncus in Fig. 2211), procurus relatively simple except distally, with two long prolatero-dorsal spines (Fig. 2209), bulb with rounded retrolateral protuberance, complex uncus with several lobes, short weakly sclerotized embolus, flattened and distally hooked appendix (Fig. 2210). Legs without spines and curved hairs, few vertical hairs (most hairs missing); retrolateral trichobothrium on tibia 1 at 5%.

Female. In general similar to male, triads closer together (distance PME-PME 185 µm), light marks on sternum very distinct; tibia 1 missing in female examined. Epigynum mostly weakly sclerotized except pair of lateral areas, with very long, proximally folded 'knob' and long hairs (Figs. 2130, 2214); internal genitalia as in Figs. 2131 and 2215.

Distribution. Known from type localities in Henan and Hebei Provinces (above) and from two further localities in Henan Province (Shibanyan [36°09.8'N, 113°43.4'E] and Sanhuangzhai Scenic Spot, Dengfeng County [34°30'N, 113°E], Zhang & Zhu 2009a) (Fig. 2200).

Material examined. CHINA: *Hebei Prov.*: Wu'an County: Liejiang: 1♂1♀ paratypes above.

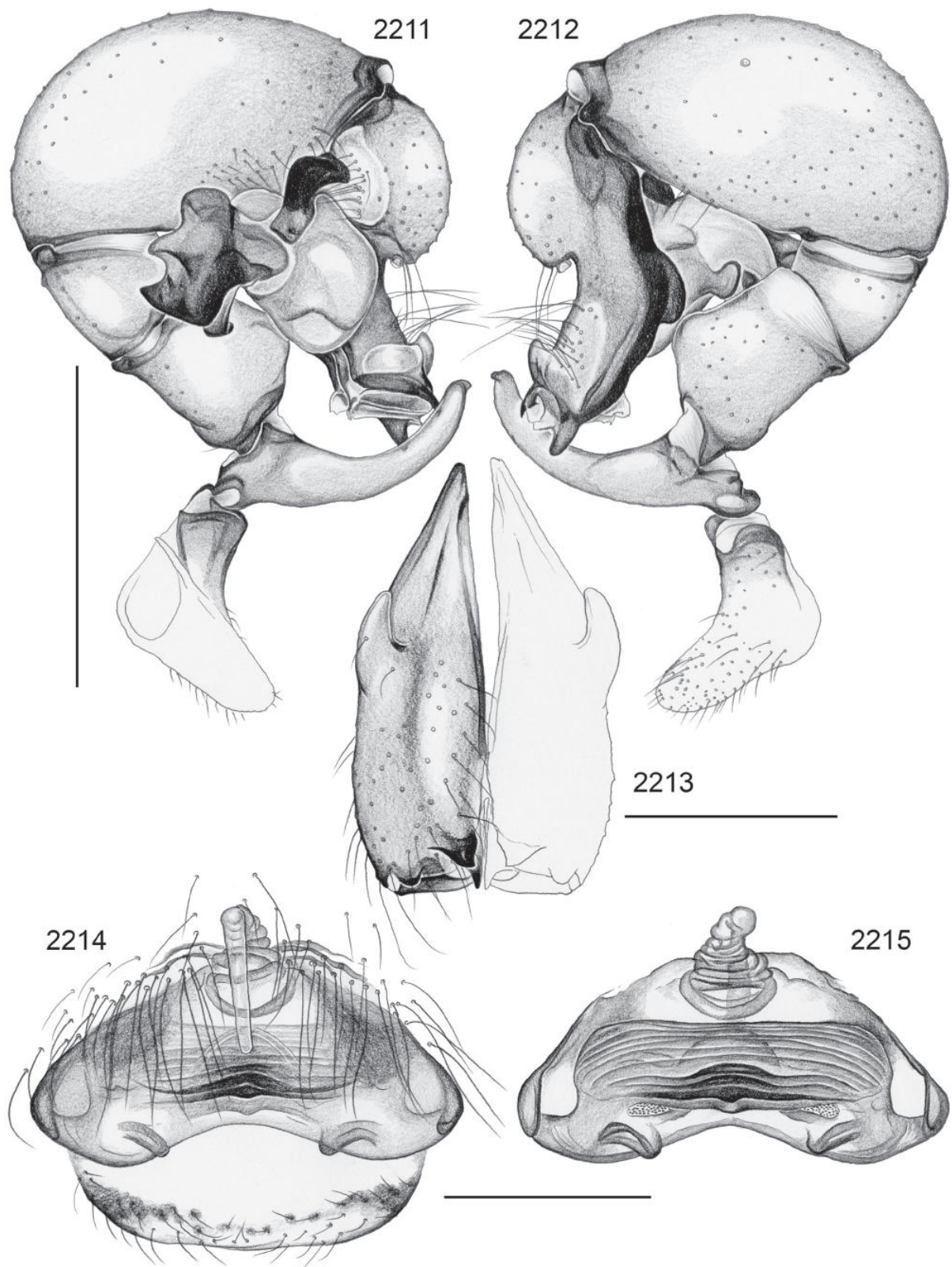


FIG. 2211-2215. *Pholcus linzhou*. 2211, 2212. Left male palp, prolateral and retrolateral views. 2213. Male chelicerae, frontal view. 2214, 2215. Cleared female genitalia, ventral and dorsal views. Scale lines: 1.0 (2211, 2212), 0.5 (2213-2215).