Pholcus yichengicus Zhu, Tu & Shi, 1986

Zhu, M.S., Tu, H.S., Shi, J.G. 1986. Spiders of the genus *Pholcus* (Araneae, Pholcidae) from Shanxi and Shanxi Provinces, China, with description of a new species. J. Hebei Normal Univ. 1986(2): 118-124.

p. 121

4、翼城幽灵蛛Pholcus yichengicus新种（图4）

正模：♀，配模：♂，副模：2♀♀1♂，山西翼城，1983Ⅷ 14，朱明生采。

雌蛛体长（正模）5.1毫米。头胸部背面黄色，背面中央有深褐色斑纹.头部隆起，8个眼均位于该隆起上。除前中眼外，其它6个眼组成左右两个三角形；从前面观察，后眼列稍后凹，前中眼间距＜前中侧眼间距；中眼区梯形，后边＞前边(0.37：0.20)；后中眼卵圆形，8个眼中以前中眼为最小。下唇长方形，前缘几乎平直，后缘呈弧形、宽＞长。胸板褐色，中央有不规则的淡色斑点，后缘钝。螯肢后齿堤有1齿，前齿堤光滑无齿。步足黄色，有褐色环状纹。步足式为Ⅰ、Ⅱ、Ⅳ、Ⅲ。步足各节测量（单位：毫米）如下：

步足	腿节	膝、胫节	后跗节	跗节	总长
Ⅰ	6.72	7.17	10.24	2.01	2.14
Ⅱ	5.12	5.41	7.16	1.31	19.00
Ⅲ	3.87	4.19	4.86	0.69	13.58
Ⅳ	5.31	4.96	6.53	1.28	18.08

腹部由黄灰色，长筒形，背面有不规则的黄褐色斑点；腹部的腹面黄色，无斑。

雄蛛体长（配模）4.34毫米。体色斑与雌蛛相似。螯肢淡黄褐色，前面有3个齿状突，后齿堤有1齿。步足各节测量（单位：毫米）如下：

步足	腿节	膝、胫节	后跗节	跗节	总长
Ⅰ	9.30	9.85	12.32	1.60	33.07
Ⅱ	7.52	7.01	10.62	1.31	26.46
Ⅲ	5.12	4.61	6.40	0.99	17.12
Ⅳ	9.78	6.40	8.86	1.21	23.25

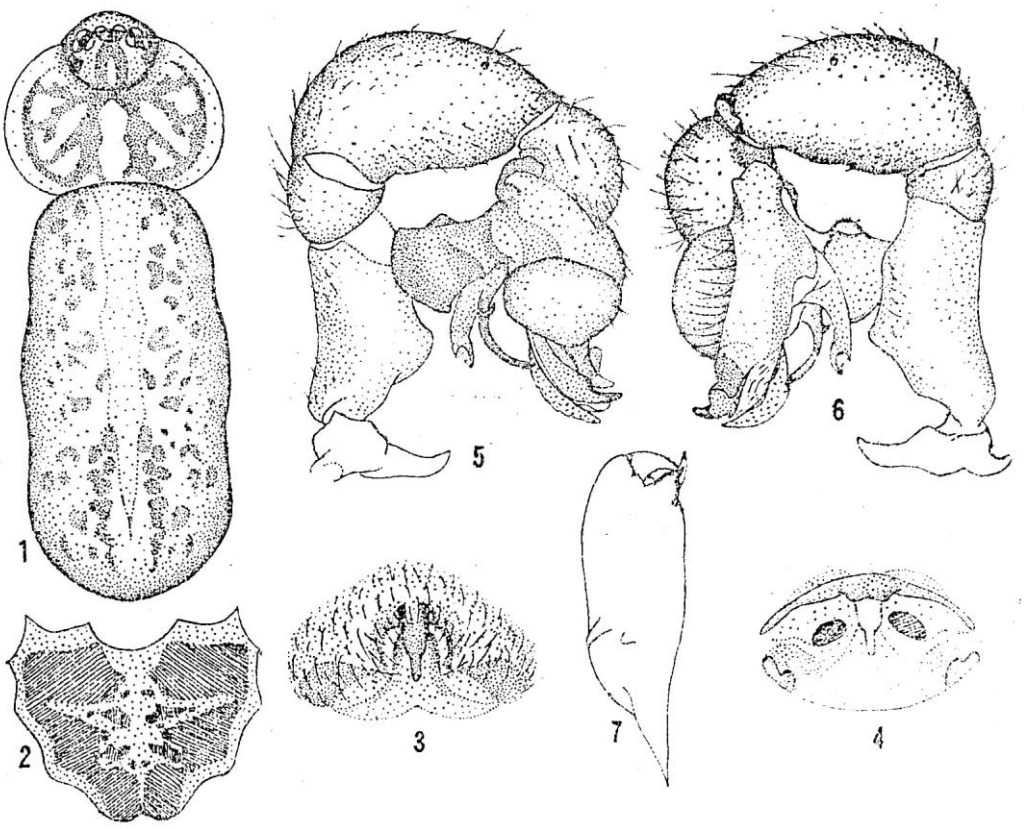


图4　翼城幽灵蛛Pholcus yichengicus

1、雌蛛背面观　2，胸板　3、外雌器外面观　4、同前，内面观
5、雄左触肢器外侧观　6、同前，内侧观　7、雄左螯肢前面观

p. 123

本新种在体色斑、雄性触肢器构造、雌性外雌器外构上很近于中国幽灵蛛Pholcus sinicus，但有如下几点有别：①雄性触肢器生殖球后面的突起有别，前部（靠蛛体）的第1突起呈砍刀状，不象后者那样呈板斧状；第3个突起的端部呈弯钩状，而亦不象后者那样呈长指状。②雄性螯肢的前面的3个齿状突，第1个齿着生的部位几乎与螯牙成水平状，而后者的第1个齿着生位置下移，且似两齿而基部相接。③本新种的外雌器垂体长，而后者的雌性外雌器垂体很短。④头胸部的背面斑纹，胸板的色斑，腹部背面的斑点与后者亦有不同。种名系汉语拼音拉丁化（yicheng）翼城＋（icus）词尾而构成，指本新种产于山西省的翼城县。

p. 124

Pholcus yichengicus sp.nov. (fig.4)

Holotype: ♀, alltype: ♂, pratype: 2♀♀1♂, Yicheng County, Shanxi. August 14, 1983.

Length of female (Holotype): 5.1mm, male (alltype): 4.34mm. Carapace yellowish in colour, mid-dorsally with deep brown patches, is very similar to that of Pholcus sinicus. Chelicerae with a repromarginal tooth and promarginal without tooth. Male quite similar to female in colouration and patches, but chelicerae with three-like prominenus on the frount

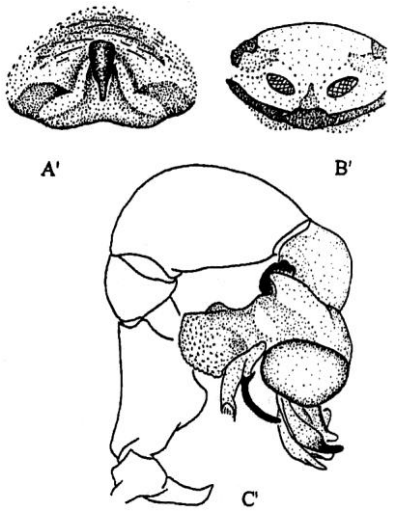
This new species colossaly resembles to Pholcus sinicus Zhu et Wang (1963) in the dorsal patches of carapace and abdomen, but it may be easily distinguished by the strutres of the epigiynum, of the male palp.

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

p. 63

***Pholcus yichengicus* Zhu, Tu *et* Shi**, 1986 (**fig.25A'—C'**)
Pholcus yichengicus Zhu, Tu & Shi, 1986: 121, f. 4.
Distribution: Shanxi.

p. 64



Song, D., Zhu, M., Chen, J. 2001. The Fauna of Hebei, China. Araneae. Hebei Science and Technology Publishing House.

p. 77

翼城幽灵蛛 *Pholcus yichengicus* Zhu, Tu *et* Shi, 1986（图 34）

Pholcus yichengicus 朱明生、屠黑锁、石建国，1986：121，fig. 4；Song，Zhu & Chen，1999：63，fig. 25A'～C'.

雌蛛体长 5.10。头胸部背面黄色，背面中央有深褐色斑纹。头部隆起，8 个眼均位于该隆起上。除前中眼外，其他 6 个眼组成左右两个三角形；从前面观察，后眼列稍后

p. 78

凹，前中眼间距＜前中侧眼间距；中眼区梯形，后边＞前边（0.37:0.20）；后中眼卵圆形，8 个眼中以前中眼为最小。下唇长方形，前缘几乎平直，后缘呈弧形、宽＞长。胸板褐色，中央有不规则的淡色斑点，后缘钝。螯肢后齿堤有 1 齿，齿前堤光滑无齿。步足黄色，有褐色环状纹。足式：1 2 4 3。腹部由黄灰色，长筒形，背面有不规则的黄褐色斑点；腹部的腹面黄色，无斑。

雄蛛体长 4.34。体色斑纹与雌蛛相似。螯肢淡黄褐色，前面有 3 个齿状突，后齿堤有 1 齿。

分布：河北、山西。

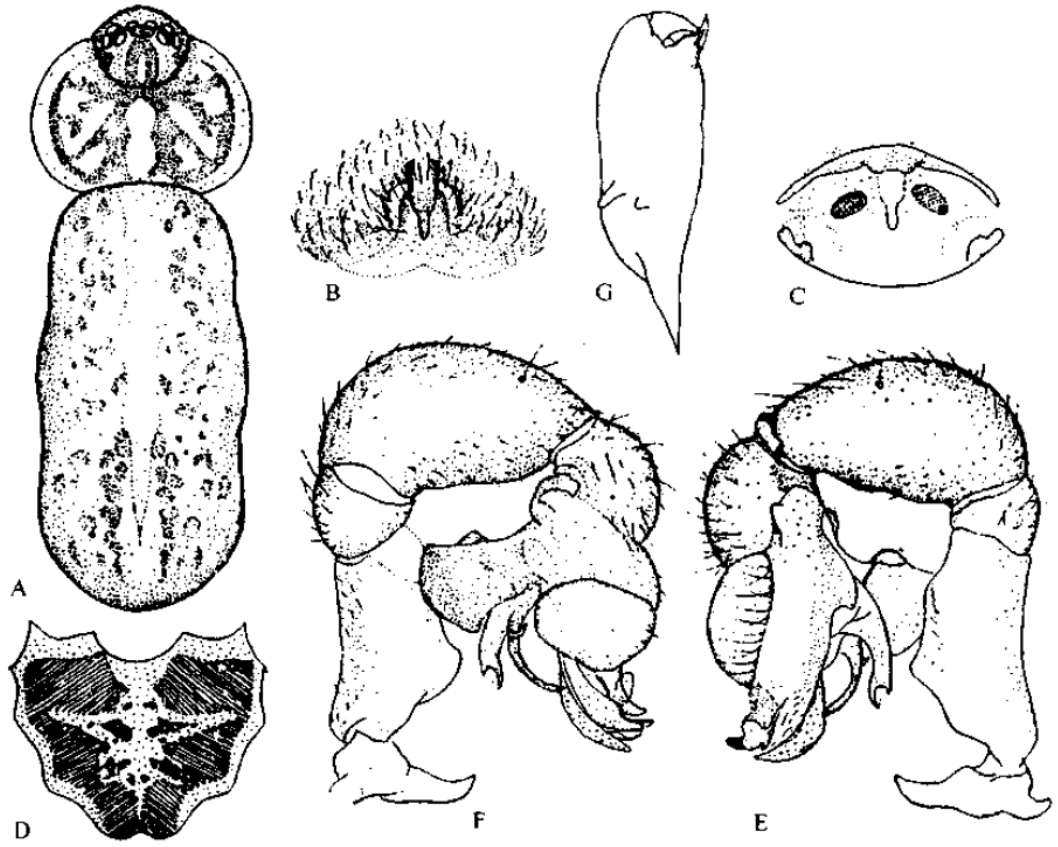


图 34　翼城幽灵蛛 *Pholcus yichengicus*

A. 雌蛛背面观，B. 外雌器外面观，C. 同上，内面观，D. 雌蛛胸板；
E. 雄蛛触肢器外侧面观，F. 同上，内侧面观，G. 雄蛛螯肢

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

***Pholcus yichengicus* Zhu, Tu & Shi, 1986**
(Fig. 60)

Pholcus yichengicus Zhu, Tu & Shi 1986: 121, f. 4.1–7. Song, Zhu & Chen 1999: 63, f. 25A'–C'. Song, Zhu & Chen 2001: 77, f. 34A–G.

Diagnosis. Among its close *Pholcus* relatives (see the remark of *P. clavatus*), this species is very similar to *P. harveyi* **sp. nov.**, *P. huberi* **sp. nov.**, *P. songxian* **sp. nov.**, and *P. parayichengicus* **sp. nov.** (all from Henan Province except *P. yichengicus* itself, that occurs in the adjacent Shanxi Province) in the shape of the palpal bulb and epigynum, all with a biforked ventral apophysis of the trochanter (Figs. 15I, 17I, 33I, 46I and 60I) and a long teat-shaped epigynal apophysis (Figs. 15A, 17A, 33I, 46A and 60A). It can be distinguished from all these species by the shape of the tip of the procursus and appendix (Figs. 60G–I), also from *P. huberi* **sp. nov.** by a branched appendix centrally (Fig. 60H), also from *P. songxian* **sp. nov.** and *P. parayichengicus* **sp. nov.** by the cephalic region with brown central marks (Fig. 60C), and also from *P. harveyi* **sp. nov.** by the pair of smaller pore plates (Fig. 60B).

Redescription. Male ('allotype'), total length 4.3: cephalothorax 1.3 long, 1.3 wide; abdomen 3.0 long, 1.2 wide. Leg I: 33.1 (9.3+0.8+9.1+12.3+1.6), tibia II: 6.3, tibia III: 4.1, tibia IV: 5.7; tibia I L/D: 57. Prosoma shape as in Fig. 60C. Carapace short, broad and almost circular, ochre, with pair of brown markings broadly connecting to ocular area. Cephalic region raised, with brown stripes centrally, ocular area dark yellow. Clypeus 0.56, slightly ochre, without brown marks centrally. Distance AME–AME 0.06. Chelicerae as in Fig. 60E, with pair of black serrated apophyses distally, pair of unsclerotized thumb-shaped apophyses proximolaterally and pair of unsclerotized rounded apophyses proximocentrally. Labium and endites yellowish brown. Sternum blackish brown, with a light yellow mark centrally as in Fig. 60F. Femora, patellae and tibiae ochre, with dark rings, metatarsi and tarsi brown. Abdomen cylindrical, pale yellow, dorsum with numerous brown spots as in Fig. 60C. Venter pale, without markings. Palps as in Figs. 60H–I, bulb with a large uncus, appendix curved. Procursus as in Fig. 60G.

Variation. Tibia I in male paratype missing. Body length in male paratype: 4.2.

Female (holotype): in general very similar to male. Total length 5.1, cephalothorax 1.4 long, 1.2 wide; abdomen 3.7 long, 1.2 wide. Tibia I: 6.4. Distance AME–AME 0.05. Epigynum roughly triangular as in Fig. 60A, with a broad necktie-shaped apophysis on the top. Dorsal view as in Fig. 60B, with a shallow M-shaped sclerotized arch anteriorly and a pair of teardrop-shaped pore plates.

Variation. Total length in other two females: 5.0, 5.1.

Distribution. Known from type locality only.

Material examined. CHINA: **Shanxi**, Yicheng County, August 14, 1983, leg. M. S. Zhu, female holotype, male 'allotype', 1♂, 2♀ paratypes (MHBU).

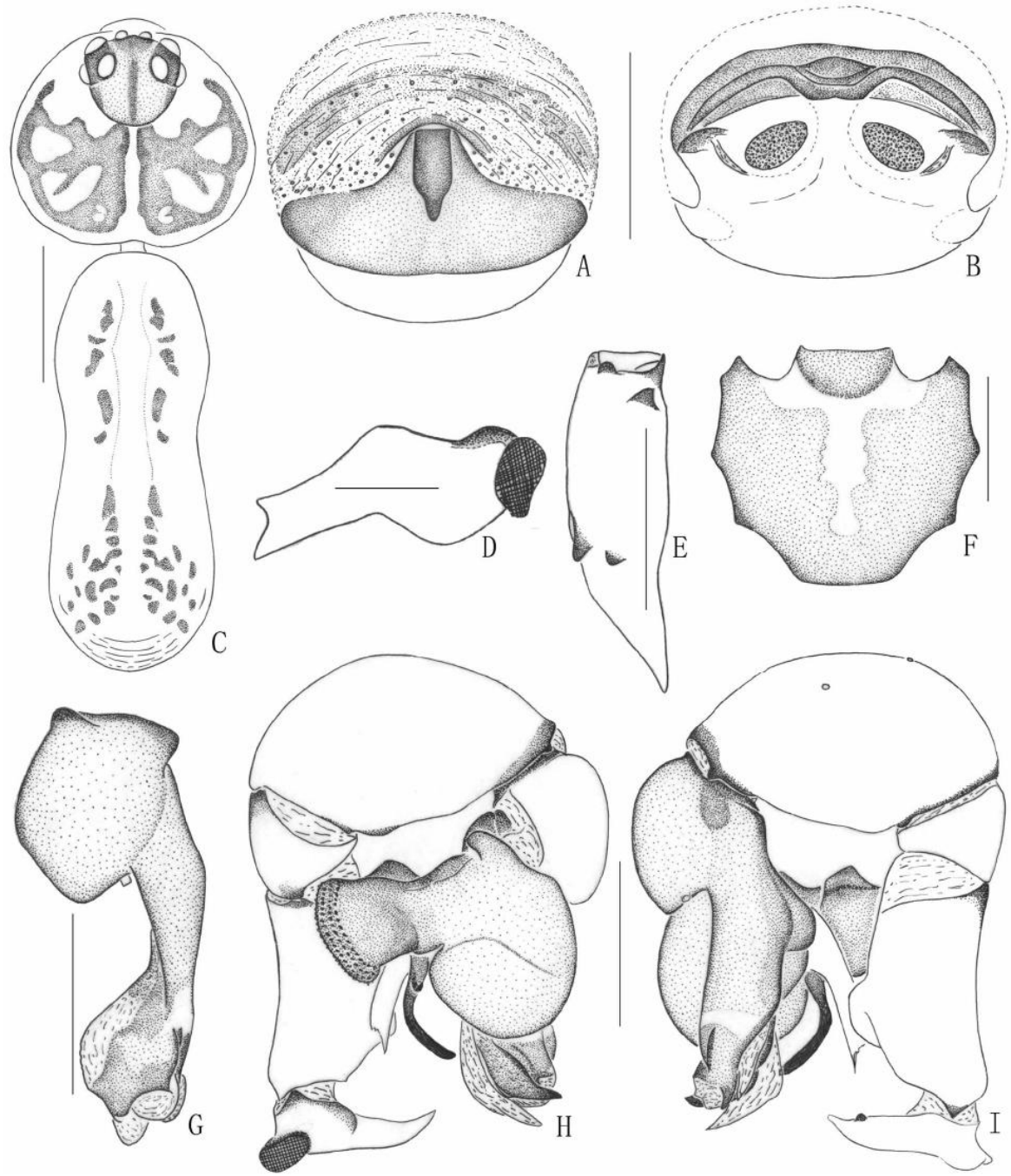


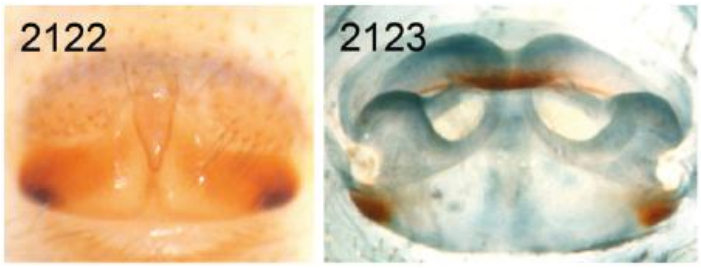
FIGURE 60. *Pholcus yichengicus* Zhu, Tu & Shi, 1986. A. epigynum, ventral view. B. same, dorsal view. C. male body, dorsal view. D. trochanter of male left palp, dorsal view. E. male left chelicera, frontal view. F. male sternum, ventral view. G. left procursus, dorsal view. H. left palp, prolateral view. I. same, retrolateral view. Scale lines: 1.0mm (C), 0.5mm (A, B, E–I), 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.

p. 445

2096. *Ph. yichengicus*, female abdomen, ventral view.

p. 446



2122, 2123. *Ph. yichengicus*.

p. 448

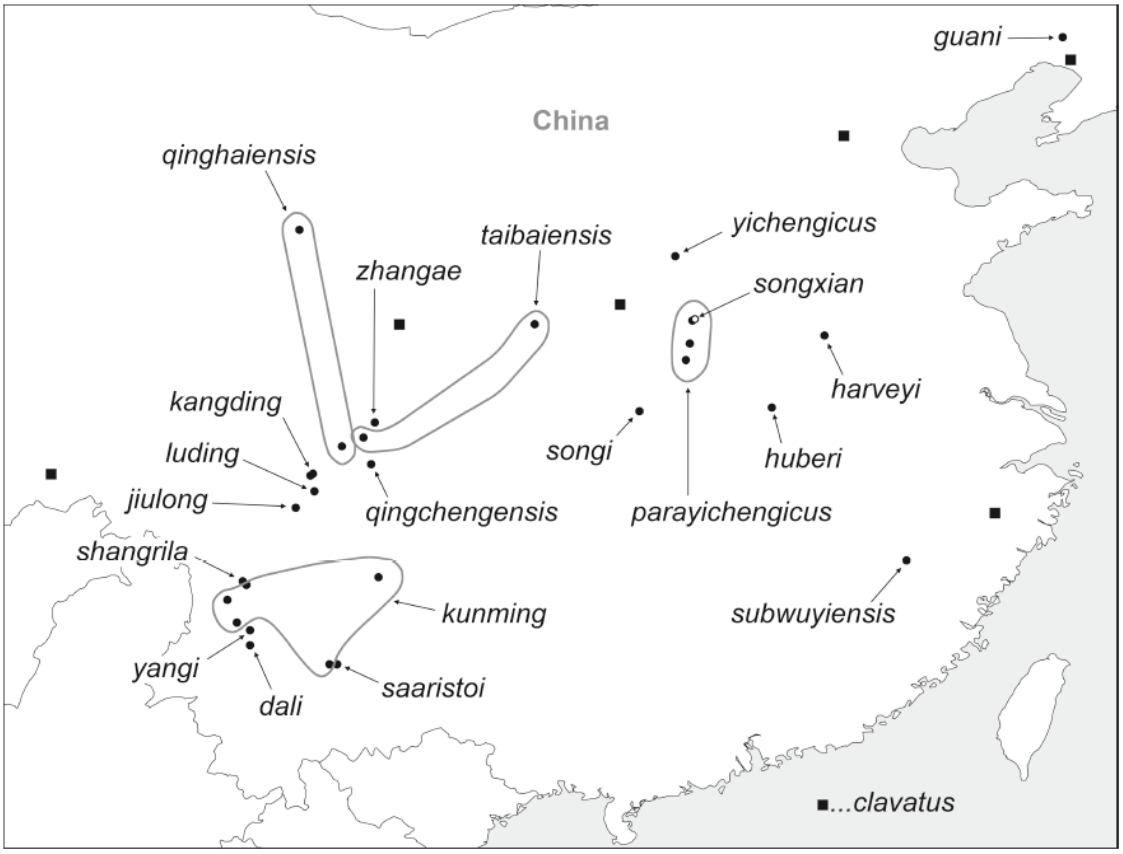


FIG. 2171. Known distribution of the *Pholcus yichengicus* species group.

Pholcus yichengicus Zhu, Tu & Shi, 1986

Figs. 2096, 2122, 2123, 2172-2177

Pholcus yichengicus Zhu, Tu & Shi 1986: 121-124, figs. 4.1-7. Song *et al.* 1999: 63, figs. 25a'-c' (copied from Zhu *et al.* 1986). Song *et al.* 2001: 77-78, figs. 34A-G (copied from Zhu *et al.* 1986). Zhang & Zhu 2009a: 103, figs. 60a-i.

Types. Female holotype, male "allotype", 1♂2♀ paratypes from China, Shanxi Prov., Yicheng County [~35°48'N, 111°33'E], 14.viii.1983 (M. Zhu), in MHBU (1♂1♀ paratypes examined).

Diagnosis. Distinguished from congeners by details of male palp (Figs. 2172, 2173; shapes of trochanter apophysis, procursus, and uncus, slender appendix with proximal branch) and female genitalia (Figs. 2122, 2177; shapes of 'knob' and pore plates); see also Zhang & Zhu (2009a).

Male (paratype). Total body length 4.7, carapace width 1.7. Leg 1 missing, tibia 2: 6.7, tibia 3: 4.3, tibia 4: 6.0. Habitus similar to *Ph. taibaiensis* (cf. Figs. 2097, 2098). Carapace pale ochre-yellow with distinctive brown pattern, ocular area with median brown stripe and lateral marks, clypeus medially slightly darker, sternum mostly light brown, lighter behind labium and near coxae, legs ochre-yellow, femora and tibiae with indistinct darker rings subdistally, patella area also slightly darker, abdomen ochre-gray with many dark spots dorsally, without ventral pattern (cf. female, Fig. 2096). Distance PME-PME 220 µm, diameter PME 135 µm, distance PME-ALE 45 µm, distance AME-AME 55 µm, diameter AME 105 µm. Ocular area moderately elevated, few stronger hairs posteriorly. No thoracic furrow; clypeus unmodified. Chelicerae as in Fig. 2175, distal apophyses with indistinct proximal hump, apparently without modified hairs, stronger hairs medially, two pairs of apophyses proximally. Sternum wider than long (1.10/0.85), unmodified. Palps as in Figs. 2172 and 2173, coxa unmodified, trochanter apophysis with distinctive retrolateral branch, femur with very indistinct proximal hump dorsally and distinct ventral protuberance, tibia with very indistinct hump ventrally proximally, procursus with two prolatero-dorsal spines and distinctive distal elements (Fig. 2174), uncus rectangular, weakly sclerotized embolus, very slender curved appendix with curved pointed branch proximally. Legs without spines, some curved hairs on metatarsi 2 and 3 (most hairs missing), few vertical hairs.

The eastern species that share a long, scape-like epigynal 'knob' (char. 67) (*Ph. guani*, *Ph. harveyi*, *Ph. huberi*, *Ph. parayichengicus*, *Ph. songxian*, *Ph. yichengicus*) may form a monophylum together with the *Ph. taishan* group (Fig. 26).

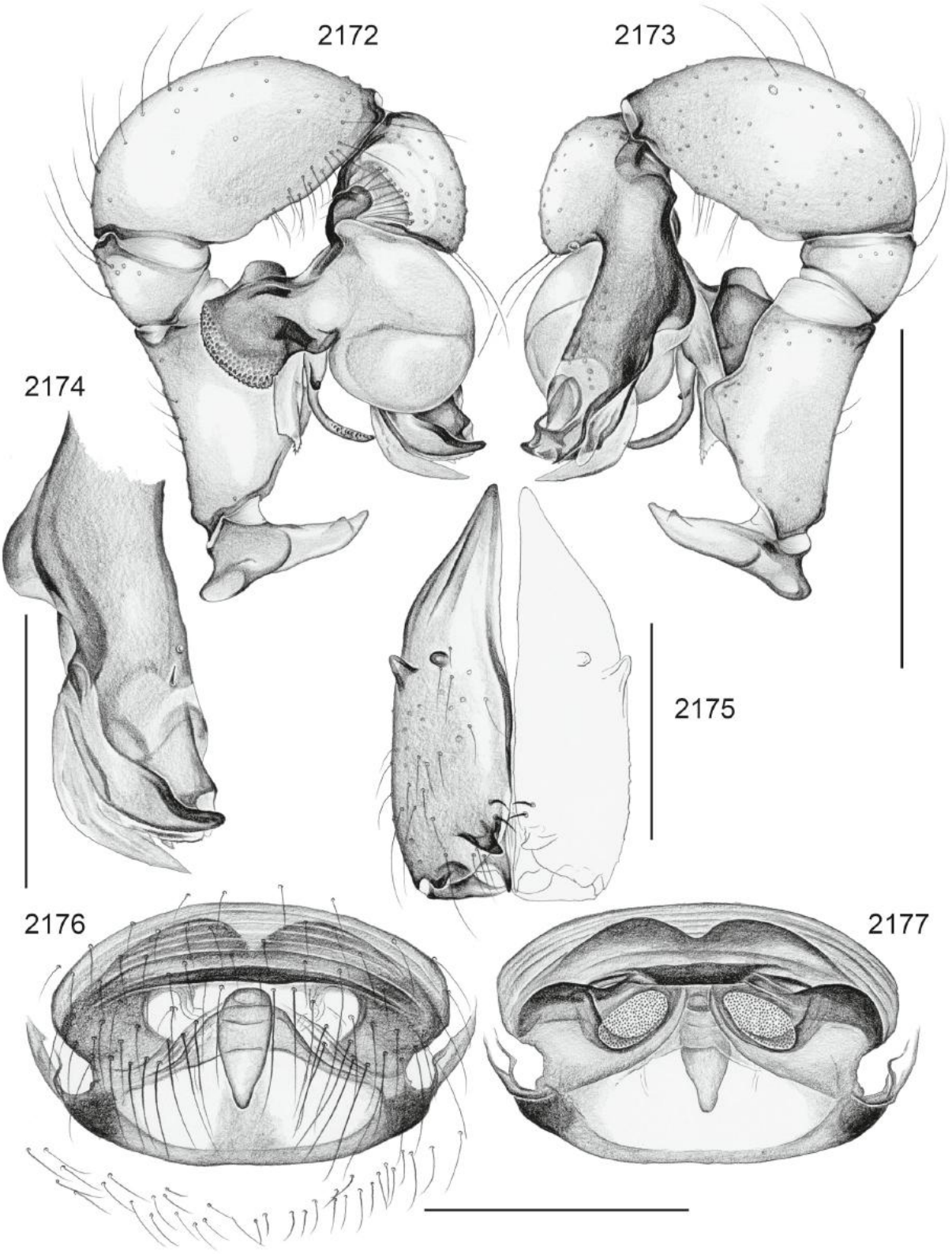


FIG. 2172-2177. *Pholcus yichengicus*. 2172, 2173. Left male palp, prolateral and retrolateral views. 2174. Left procursus, prolateral view. 2175. Male chelicerae, frontal view. 2176, 2177. Cleared female genitalia, ventral and dorsal views. Scale lines: 1.0 (2172, 2173), 0.5 (2174-2177).

Female. In general similar to male, triads closer together (distance PME-PME 185 μm). Tibia 1: 6.5. Epigynum slightly elevated, anterior arc visible through cuticle, triangular plate strongly sclerotized laterally and with large and wide anterior 'knob' (Figs. 2122, 2176); internal genitalia as in Figs. 2123 and 2177.

Distribution. Known from type locality only (Fig. 2171).

Material examined. CHINA: *Shanxi Prov.*: Yicheng County: 1♂1♀ paratypes above.