Pholcus gui Zhu & Song, 1999

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

p. 57

***Pholcus gui* Zhu *et* Song, sp. nov. (fig.24A—H)**

Holotype: male; paratypes: 3 males, 3 females, Mt. Jianfengling, Hainan, December 31, 1989, by Gu, M. B.

Length of males 6.72—6.80mm. Length of holotype 6.80: cephalothorax 1.52 long,

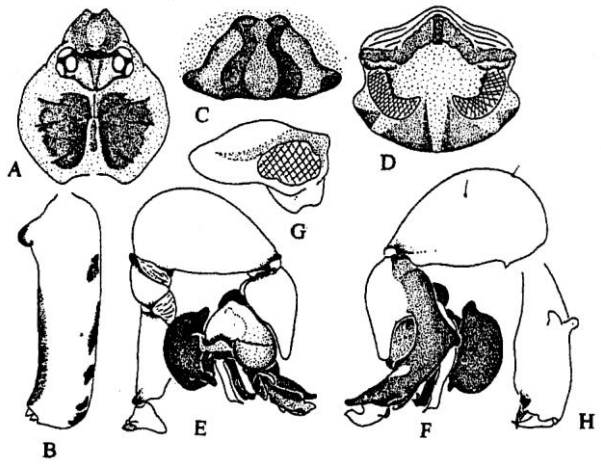
p. 58

1.82 wide; abdomen 5.30 long, 1.70 wide. Carapace cream-colored. Both sides of thoracic region with a brown spot. Anterior margin of clypeus with a pair of processes. Two eyes rows recurved. Lateral eyes grouping on a short eye stalk. Labium, endites and chelicerae light yellowish brown. Sternum cream-colored, with anterior margin and posterior half yellow brown. Legs yellow brown. Ⅰ 48.20 (12.20, 12.50, 20.80, 2.70), Ⅱ 34.25 (9.30, 9.10, 1420, 1.65), Ⅲ 24.75 (7.20, 6.60, 9.70, 1.25), Ⅳ 32.25 (9.50, 8.40, 12.70, 1.65). Abdomen fawn, dorsum with 4—5 pairs of grayish brown spots, venter with a grayish brown, longitudinal stripe. Uncus of palpal organ helmet-like; bulb smaller than uncus.

Length of female 6.75—6.84mm. Body length 6.84: cephalothorax 1.49 long, 1.70 wide; abdomen 5.35 long, 1.92 wide, 1.80 high. Color and markings as in male. Lateral eye grouping not elevated. AME-AME 0.06, AME-ALE 0.10, PME-PME 0.35, PME-PLE 0.03. Legs: Ⅰ 41.60 (10.10, 11.10, 17.80, 2.60), Ⅱ 27.55 (7.90, 7.85, 11.80, 1.60), Ⅲ 20.70 (6.10, 5.50, 7.90, 1.20), Ⅳ 28.90 (8.50, 7.50, 11.30, 160). Epigyne blackish brown, convex, no scapus.

Note: This new species differs from other members of the genus in: 1. uncus of male palp helmet-like; 2. male bulb smaller than uncus; 3. female epigyne without scapus.

p. 62



Tong, Y., Li, S. 2009. Six new cave-dwelling pholcid spiders (Araneae: Pholcidae) from Hainan Island, with two newly recorded genera from China. Zootaxa 1988: 17-32.

p. 30

***Pholcus gui* Zhu & Song, 1999**

Material examined: 1 male and 1 female paratypes, CHINA: Hainan Province, Jianfengling Mountain, 13 December 1989, M. Zhu leg.; 1 male, 1 female, China: Hainan Province, Sanya City, Lizhigou Town, Luobi Cave (18°20.028′ N, 109°32.872′ E), 10–11 April 2005, Y. Song, X. Han, Y. Tong and G. Deng leg.; 1 male, 2 females, CHINA: Hainan Province, Sanya City, Lizhigou Town, Xiannü Cave (18°19.844′ N, 109°32.953′ E), other data same as the former; 1 male, 3 females, CHINA: Hainan Province, Sanya City, Lizhigou Town, a cave without special name, other data same as the former; 1 male, 4 females, CHINA: Hainan Province, Dongfang City, Donghe Town, Yalong Village, a cave without special name (18°58.935′ N, 108°53.196′ E), 31 March 2005, collector same as the former.

Distribution: China (Hainan: Jianfengling Mountain (type locality), new to Sanya and Dongfang).

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

p. 32

***Pholcus gui* Zhu & Song, 1999**
(Fig. 14)

Pholcus gui Zhu & Song, in Song, Zhu & Chen 1999: 57, f. 24A–H.

Diagnosis. This species resembles *P. kimi* and *P. bidentatus*, but can be distinguished from them by the appendix with a longer branch distally (Fig. 14F), by the shape of the tip of the procursus (Figs. 14H–J), and by the longer apophysis of the epigynum in ventral view (Fig. 14A).

Redescription. Male (holotype), total length 6.8: cephalothorax 1.5 long, 1.8 wide; abdomen 5.3 long, 1.7 wide. Leg I: 48.2 (12.2+0.8+11.7+20.8+2.7), tibia II: 8.4, tibia III: 6.0, tibia IV: 7.8; tibia I L/D: 69. Prosoma shape as in Fig. 14D. Carapace short, broad and almost circular, ochre, with pair of brown butterfly-shaped mark broadly connecting to ocular area. Cephalic region raised, with two slender brown lines centrally, ocular area dark yellow. Clypeus 0.56, slightly ochre, with yellow marks. Distance AME–AME 0.08. Diameter AME 0.10, ALE 0.17, PME 0.14, PLE 0.15. Chelicerae as in Fig. 14G, with pair of black serrated apophyses distally and pair of unsclerotized biforked apophyses proximolaterally. Labium light yellow. Endites yellow. Sternum ochre, with anterior margin and posterior part yellow brown. Femora, patellae and tibiae ochre, with dark rings, metatarsi and tarsi brown. Abdomen cylindrical, pale ochre, dorsum with 5 pairs of brown spots. Venter with a grayish brown, longitudinal stripe. Palps as in Figs. 14I and 14J, bulb with a helmet-like uncus,

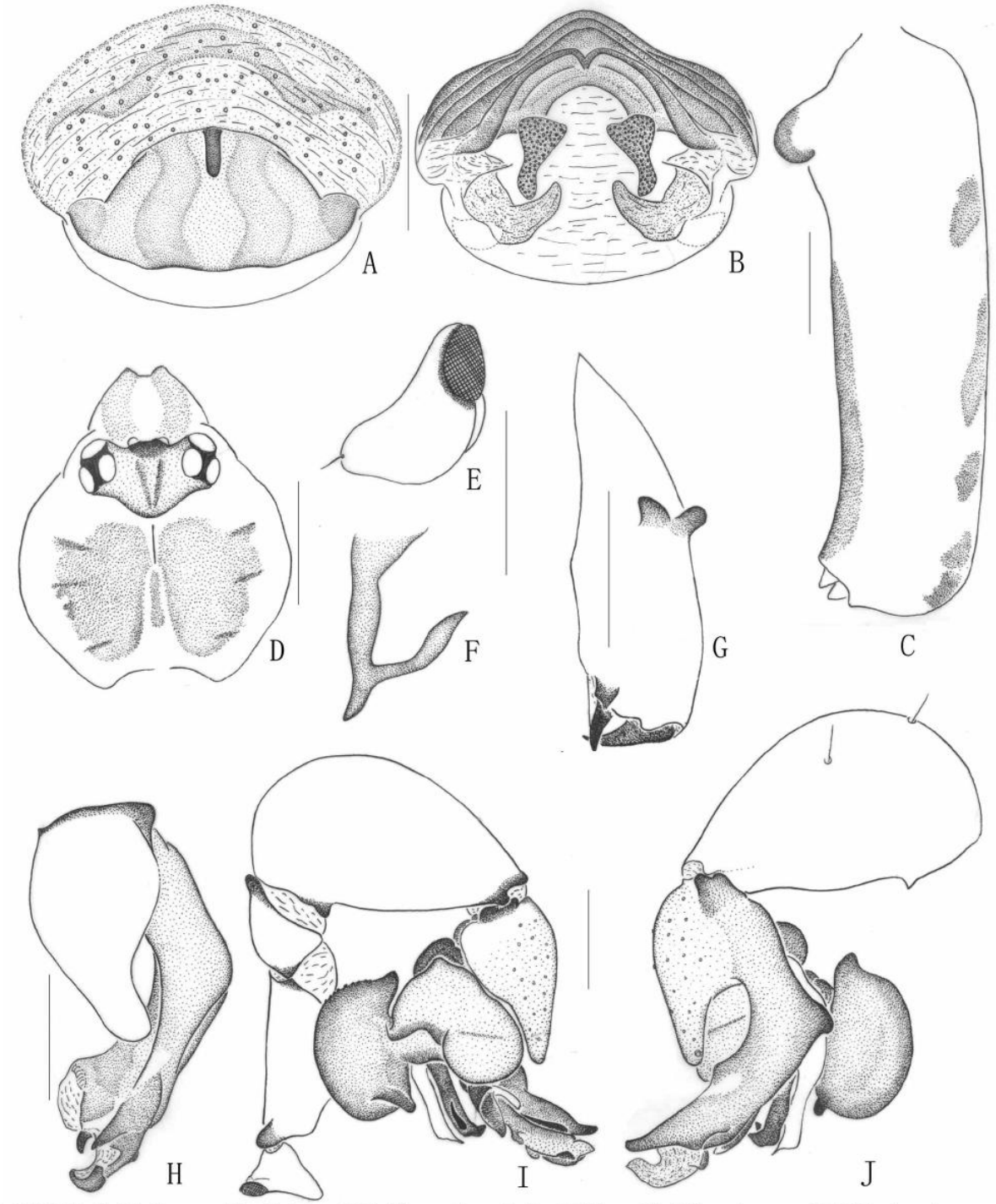


FIGURE 14. *Pholcus gui* Zhu & Song, 1999 (illustrations, C, D, G, I, J modified from Song *et al*. 1999). A. epigynum, ventral view. B. same, dorsal view. C. female opisthosoma, lateral view. D. male prosoma, dorsal view. E. trochanter of male left palp, dorsal view. F. tip of left appendix, retrolaterodorsal view. G. male left chelicera, frontal view. H. left procursus, dorsal view. I. left palp, prolateral view. J. same, retrolateral view. Scale lines: 1.0mm (C, D), 0.5mm (A, B, G–J), 0.2mm (E, F).

appendix with a large branch distally, trochanter with short ventral apophysis. Procursus as in Fig. 14H. Palpal tarsal organ capsulate, on conical projection of cymbium (Fig. 14H).

p. 35

Variation. Tibia I in three other male paratypes: 10.8, 10.7, 11.2. Body length in three other males: 6.3, 6.5, 6.6.

Female: in general very similar to male. Female (paratypes) total length 6.4–6.9, a specimen measured, total length 6.9: cephalothorax 1.5 long, 1.7 wide; abdomen 5.4 long, 1.9 wide. Tibia I 10.3. Distance AME–AME 0.06. Diameter AME 0.10, ALE 0.18, PME 0.15, PLE 0.16. Abdomen cylindrical, pale ochre, dorsum with 5 pairs of brown spots as in Fig. 14C. Epigynum roughly triangular as in Fig. 14A, with a short club-shaped apophysis on the top. Dorsal view as in Fig. 14B, with a straw-hat-shaped sclerotized arch anteriorly and a pair of broom-shaped pore plates.

Variation. The specimens from Guangxi with a few differences in the markings of carapace, other characters same as speicmens from Hainan Island.

Distribution. Known from type locality and Guangxi Province, China.

Material examined. CHINA: **Hainan**: Mt. Jiangfengling, December 13, 1989, leg. M. B. Gu, male holotype, 3♂, 3♀ paratypes (MHBU); Sanya City, Yalongwan, December 11, 2003, leg. M. S. Zhu, 2♂, 2♀ (MHBU). **Guangxi**: Fusui County, Bapen Natural Reserve, August 17, 2004, leg. M. S. Zhu and F. Zhang, 1♂, 3♀ (MHBU).

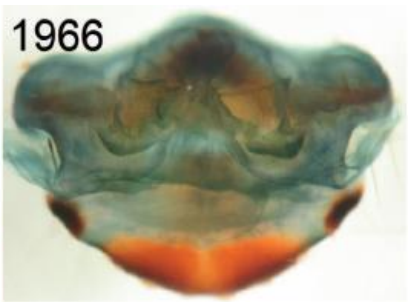
Remark. When the description of this species was published in 1999, the authors described the female as "female epigyna without scapus" in the note. The current authors re-examined the type materials (hototype male, paratypes three males and three females) in detail, and found that two of three females did indeed have a scape and the scape of the other female may be lost; so we illustrate the epigynum here again.

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

p. 406

1934. *Ph. gui*, male, dorsal view.

p. 407



1965, 1966. *Ph. gui.*

p. 420

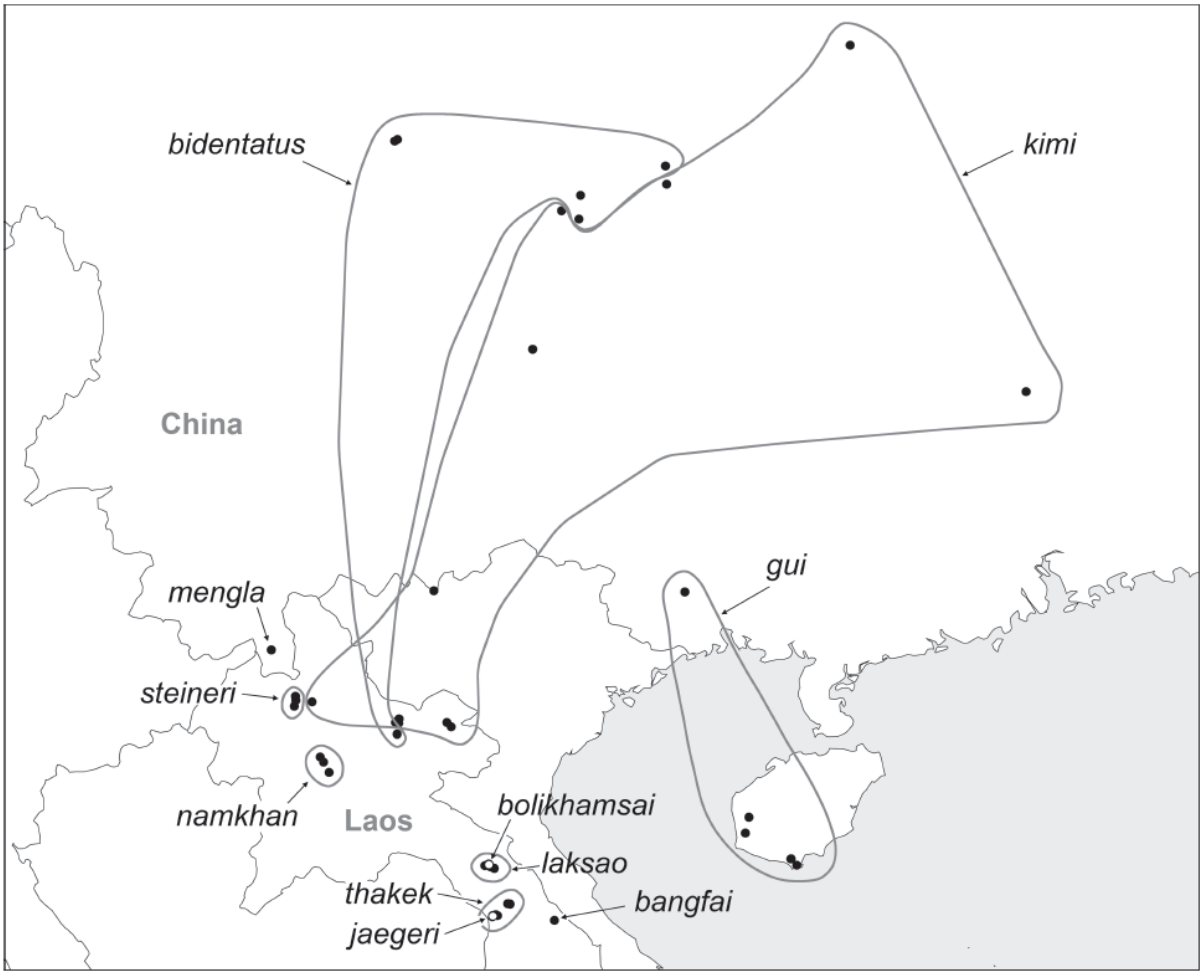


FIG. 2027. Known distribution of the *Pholcus bidentatus* species group.

p. 425

Pholcus gui Zhu & Song, 1999

Figs. 1934, 1965, 1966, 2044-2049

Pholcus gui Zhu & Song in Song, Zhu & Chen 1999: 57-58, figs. 24a-h. Tong & Li 2009: 30. Zhang & Zhu 2009a: 32-35, figs. 14a-j.

Types. Male holotype, 3♂3♀ paratypes from China, Hainan Prov., Mt. Jianfengling [~18°44'N,

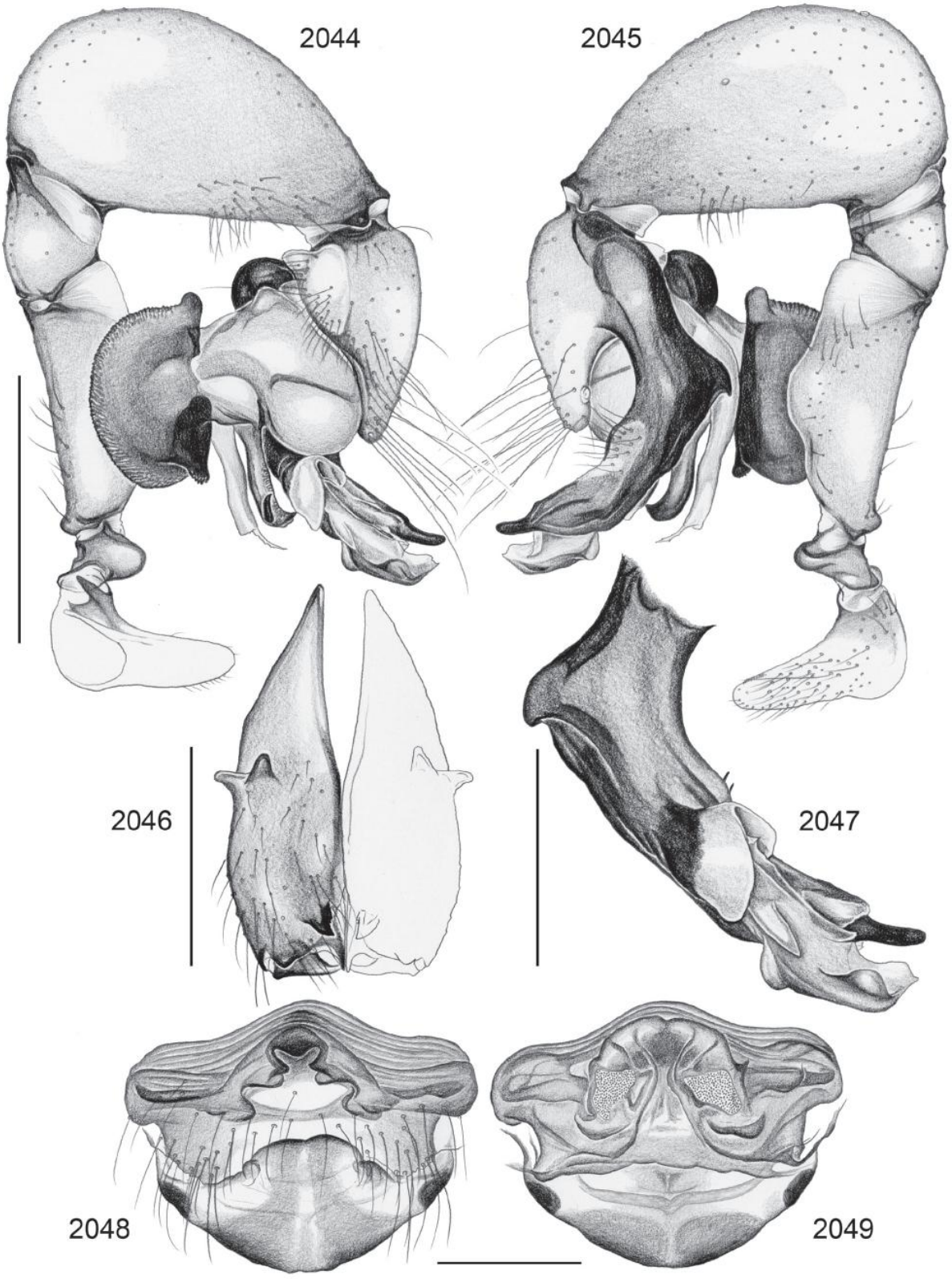


FIG. 2044-2049. *Pholcus gui*. 2044, 2045. Left male palp, prolateral and retrolateral views. 2046. Male chelicerae, frontal view. 2047. Left procursus, prolateral view. 2048, 2049. Cleared female genitalia (damaged, see text), ventral and dorsal views. Scale lines: 1.0 (2044, 2045), 0.5 (2046-2049).

108°50'E], 13.xii.1989 (M.B. Gu), in MHBU (1♂1♀ paratypes examined).

Diagnosis. Easily distinguished from congeners by male palpal morphology (Figs. 2044, 2045; shapes of procursus, uncus, and appendix).

Male (paratype). Total body length 6.2, carapace width 1.6. All legs detached, most missing. Habitus as in Fig. 1934. Carapace pale ochre-yellow with large brown mark divided posteriorly, ocular area brown, clypeus with pair of brown bands, sternum pale ochre-yellow, margins brown, posterior third light brown, abdomen ochre-gray with indistinct cuticular dorsal pattern, ventrally very indistinct wide band fading anteriorly, genital area brown. Distance PME-PME 325 µm, diameter PME 160 µm, distance PME-ALE 25 µm, distance AME-AME 55 µm, diameter AME 90 µm. Ocular area elevated, many stronger hairs posteriorly. No thoracic furrow, clypeus with pair of low humps at rim. Chelicerae as in Fig. 2046, distal apophyses apparently without modified hairs, two pairs of apophyses proximally. Sternum wider than long (0.90/0.85), unmodified. Palps as in Figs. 2044 and 2045, coxa unmodified, trochanter apophysis very short and wide, femur with proximal hump dorsally and low ventral protuberance, tibia very large, ventrally unmodified, tarsus dorsally elongated, procursus long, strongly bent, with two prolatero-dorsal spines, distally complex with sclerotized and membranous elements (Fig. 2047), bulb with large uncus, weakly sclerotized long embolus with terminal transparent process, rod-shaped appendix with distinctive prolateral branch distally.

Female. In general similar to male, triads closer together (distance PME-PME 230 µm), bands on clypeus barely visible, sternum also anteriorly darkened, legs ochre yellow, femora and tibiae with subdistal darker rings and light tips, patella area also darkened; tibia 1: 10.8. The epigynum examined had already been dissected and partly destroyed but still shows a distinctive color pattern on the sclerotized plate, the 'knob' is missing and the pore plates appear damaged (Figs. 1965, 1966, 2048, 2049).

Distribution. Known from type locality, and several further localities in Hainan and Guangxi Provinces (Sanya City: ~18°19'N, 109°33'E; Dongfang City, Donghe Town: 18°58.9'N, 108°53.2'E; Fusui County, Bapen Natural Reserve: ~22°30'N, 107°53'E; see Tong & Li 2009, Zhang & Zhu 2009a) (Fig. 2027).

Material examined. CHINA: *Hainan Prov.*: Mt. Jianfengling: 1♂1♀ paratypes above.