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A New Species of the Genus *Pholcus* (Araneae, Pholcidae) from Kumamoto Prefecture, Kyushu, Japan

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Abstract A new species of the spider family Pholcidae is described from Kumamoto Prefecture, Kyushu, Japan, under the name of *Pholcus higoensis* sp. nov. It seems to be related to *Pholcus zichyi* Kulczyński, 1901 (=*P. crypticolens* Bösenberg et Strand, 1906), *P. opilionoides* (Schrank, 1781) and *P. wuyiensis* Zhu et Gong, 1991, but is distinguishable from these by the structure of male palp and the shape of female genitalia.

Key words: Taxonomy, Araneae, Pholcidae, *Pholcus*, Japan, new species

Up to the present, eight genera and seventeen species of the family Pholcidae have been recorded from Japan (Yaginuma, 1986; Irie, 1997, 2002, 2007; Tanikawa, 2001). Of these, six species have been found in Kumamoto Prefecture, Kyushu: *Pholcus opilionoides* (Schrank, 1781) (house-dweller), *P. phalangioides* (Fuesslin, 1775) (house-dweller), *P. zichyi* Kulczyński, 1901 (sensu Marusik and Koponen, 2000; =*P. crypticolens* Bösenberg et Strand, 1906) (found in coppice), *Spermophora akebona* Komatsu, 1961 (cave-dweller), *S. senoculata* (Dugès, 1836) (house-dweller) and *Crossopriza lyoni* (Blackwall, 1867) (house-dweller, exotic species).

The present paper deals with a seventh pholcid spider found in Kumamoto, which seems to have been neglected, resembling *Pholcus zichyi* (=*P. crypticolens*), the commonest species of *Pholcus* in open-air environments in Japan. Although the first author (T. Irie) has intensively made field researches in Kyushu since more than 50 years, he may overlook bamboo groves, where the spider in question occurs. After careful examination of the obtained specimens of the spider, the present authors recognized it as a new species.

Seven species of the genus *Pholcus* were hitherto known in Japan. Other than *P. zichyi*, *P. opilionoides* is similar to the new species. Also a Chinese species, *P. wuyiensis* Zhu et Gong, 1991, described from Fujian Province, seems to be its close relative. The new species is described herein under comparison to these three species.

All the types and other specimens used for this study are deposited in the arachnid collection of the National Museum of Nature and Science, Tokyo (NSMT).

The abbreviations used in this paper are as follows: ALE, anterior lateral eye; AME, anterior median eye; PLE, posterior lateral eye; PME, posterior median eye; OA, ocular area; Cp, length of clypeus.

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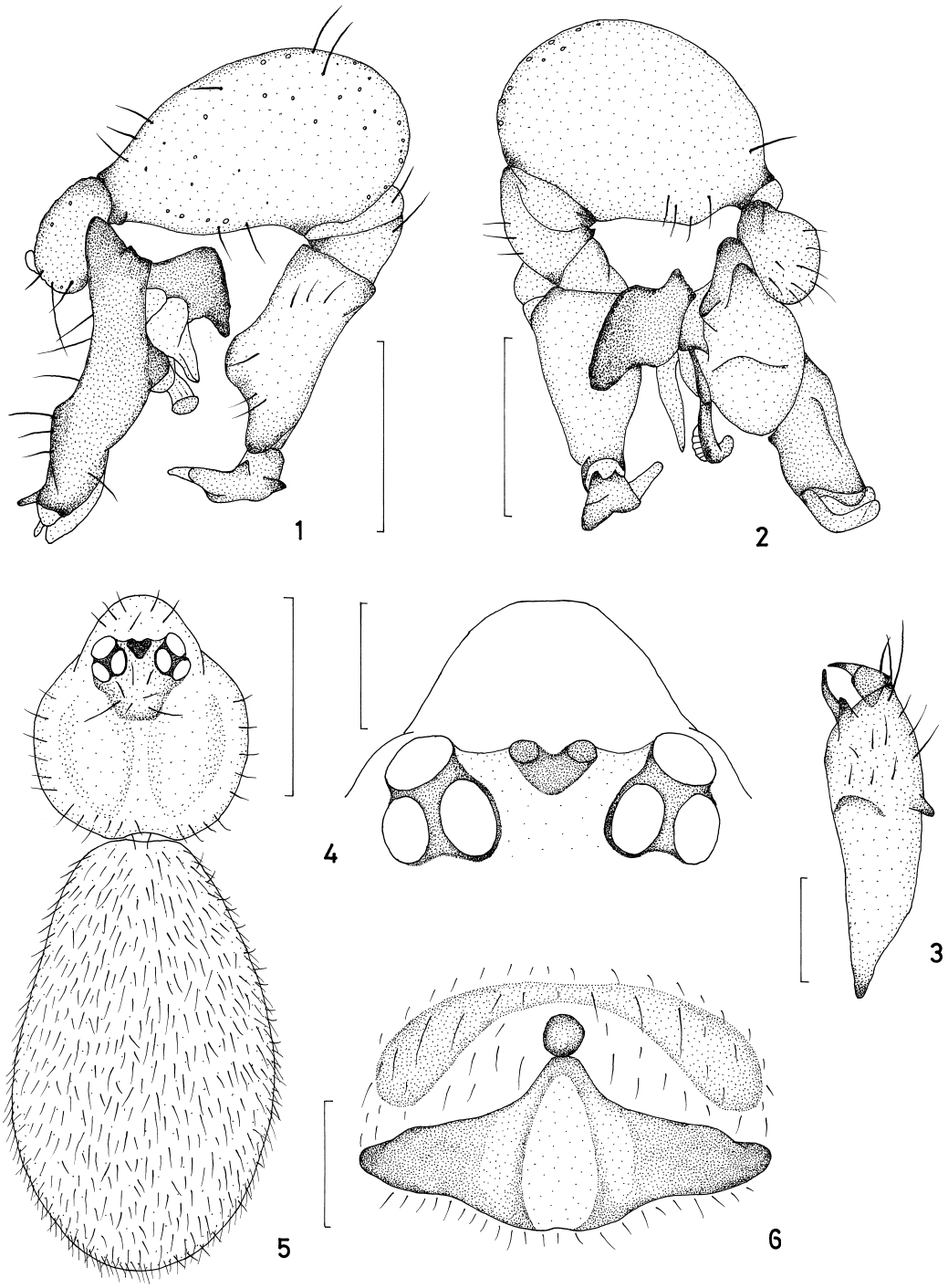
Pholcus higoensis sp. nov.

[Japanese name: Higo-yûreigumo]

(Figs. 1–6)

Diagonosis. This new species is similar to



Figs. 1–6. *Pholcus higoensis* sp. nov. 1–4, holotype ♂ (NSMT-Ar 7859); 5–6, allotype♀ (NSMT-Ar 7860). — 1, Left palp, retrolateral view; 2, same, prolateral view; 3, left chelicera, ventral view; 4, ocular area, dorsal view; 5, body, dorsal view; 6, genital field, ventral view. (Scales: 1–2, 0.5 mm; 3–4, 6, 0.2 mm; 5, 1.0 mm.)

Pholcus zichyi Kulczyński, 1901, distributed in Japan, Korea, Russian Far East, China and Taiwan, *P. opilionoides* (Schrank, 1781), Horarctic, and *P. wuyiensis* described by Zhu and Gong (1991) from Fujian Province, Southeast China, both in general appearance and in genital morphology, especially in shape of the procursus, uncus and trochates of male palp, but is distinguished from these three species in details of the parts of male palp (Figs. 1–2) and the shape of female genitalia (Fig. 6).

Type specimens. Holotype: ♂, Kusuno-machi, Kumamoto-shi, Kumamoto Prefecture, Kyushu, Japan, 5-I-2008, T. Irie leg. (NSMT-Ar 7859); allotype: ♀, same locality, 16-I-2008, T. Irie leg. (NSMT-Ar 7860); paratypes: 4♀, same locality (1♀, 8-X-2007, 1♀, 16-I-2008, 2♀, 21-II-2008), T. Irie leg. (NSMT-Ar 7861-7863).

Other specimens examined. 2♀2♂, Kajiomachi, Kumamoto-shi, Kumamoto Prefecture, Kyushu, Japan, 22-X II-2007, K. Uki leg. (NSMT-Ar 7864).

Description. Measurements (holotype/allotype; in mm): Body length 2.86/3.46. Carapace length 1.00/1.26, width 0.86/1.06. Abdomen length 1.86/2.20, width 1.13/1.33. Lengths of legs as shown in Table 1. Eye sizes: AME 0.05/0.05, ALE 0.13/0.13, PME 0.13/0.13, PLE 0.13/0.13. Distances between eyes: AME-AME 0.03/0.02, ALE-ALE 0.20/0.20, PME-PME 0.16/0.10, PLE-PLE 0.36/0.30. OA length 0.23/0.22, width 0.53/0.50. Cp 0.20/0.20.

Male (holotype). Carapace milky white, with whitish gray dorsal pattern, nearly as long as wide. Eight eyes on cephalic tubercle arranged in three groups as usual in the genus *Pholcus*. AME dark, the smallest, ALE=PME=PLE>AME. Anterior eye row procurved. Chelicera light yellowish brown, with a lamella and a long frontal apophysis, and with a sharp ridge on the lateral margin. Sternum light yellowish brown, with light gray spots at both sides, almost as long as wide. Legs very long, light yellowish brown, lengths of hairs 0.20–0.25 mm. Leg formula 1,4,2,3. Abdomen milky-whitish yellow, yellowish white or light whitish brown, cylindrical and hairy, lengths of hairs 0.12–0.15 mm.

Male palp (Figs. 1–2): Uncus reddish dark brown, J-shaped. Procursus reddish dark brown. Trochanter slender, horizontally, like a flat shoe.

Female (allotype). Body and legs slightly longer than those of male holotype. Genital field glossy light brown, the structure as shown in Fig. 6. Other characters as same as in the male holotype.

Variation. Body length (in mm): ♂ 2.86–3.06, ♀ 2.72–4.19.

Distribution. Japan (at present known only from Kumamoto Prefecture).

Etymology. The specific name is derived from Japanese Higo, an old name of Kumamoto.

Remarks. This new species inhabits clumps of a thick-stemmed bamboo, moso-chiku (*Phyllostachys* sp.), and the spiders were collected from rotten stems, twigs and leaves of bamboos on ground.

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Table 1. Measurements of legs of *Pholcus higoensis* sp. nov. (♂ holotype/♀allotype; in mm).

Leg	Femur	Patella+Tibia	Metatarsus	Tarsus	Total
I	3.87/4.33	4.12/4.60	4.75/5.33	1.16/1.26	13.90/15.52
II	2.93/3.06	2.93/3.20	3.46/3.66	0.86/1.00	10.18/10.92
III	2.16/2.20	2.20/2.40	2.50/2.73	0.66/0.73	7.52/8.06
IV	3.06/3.33	3.20/3.53	3.40/3.86	0.93/0.93	10.59/11.65

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