Pholcus crassus Paik, 1978

Paik, K. Y. 1978. The Pholcidae (Araneae) of Korea. Educational Journal Kyungpook Univ. 20(1978): 113-135.

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Pholcus crassus sp. nov.

(Figs. 21—29)

Measurements(mm.). *Male*(Holotype): BL−5.72, CL−1.76, CW−1.66, LBL +SL−1.88, LBW−0.36, SW−1.88, EDL−0.72, EDW−0.23, AER−0.72, PER −0.77, AL−3.76, AW−1.92. Leg I 43.98(11.64, 0.77, 12.15, 11.23, 8.45) II 31.00(8.45, 0.72, 8.03, 12.52, 1.54), III 21.53(6.18, 0.62, 5.46, 8.34, 1.13), IV 28.22(8.14, 0.62, 7.31, 10.92, 1.44). Palp 2.99(0.82, 0.46, 1.20, 0.51).

Female(Allotype): BL−5.16, CL−1.54, CW−1.48, LBL+SL−1.10, LBW−0.36, SW−1.00, EDL−0.64, EDW−0.15, AER−0.64, PER−0.69, AL−3.40, AW−1.97. Leg I 32.55(8.24, 0.52, 8.45, 13.39, 2.16), II 22.56(6.39, 0.62, 5.46, 8.86, 1.44), III 17.30(4.94, 0.62, 44.3, 6.39, 1.13), IV 17.05(4.84, 0.62, 4.33, 6.95, 0.52). Palp 1.31(0.41, 0.18, 0.26, 0.46).

Description. *Male*(Holotype): Body length is 5.72mm. Carapace slightly longer than the width in the ratio of 100 : 94 ; pale yellow, with brownish gray

dorsal pattern similar to that of *P. crypticolens*. Anterior median eyes separated from each other by one-third their diameter, from lateral eyes by one-third their diameter. Posterior median eyes separated from each other by 1.4 times by their diameter, from lateral eyes by one-seventh their diameter. Anterior median eyes dark and smallest, remainder pearl-white and subequal each other. Eye ratio, AME<ALE=PME=PLE(6:7:7:7). Anterior eye row slightly shorter than posterior eye row, the index 94. Both eyes row recurved respectively. Median ocular quadrangle wider behind than in front in the ratio of 30 : 13, and wider than long in the ratio of 30 : 14. Clypeus about 4 times the diameter of anterior median eye. Chelicerae dark brown, armed with three teeth-like prominences and a long tooth on the inner margin of fang furrow. Endite brownish yellow, but the tip yellowish white; longer than the width, the index 32 ; strongly converged distally, the index 36. Labium entirely fused to sternum. Labium and sternum yellow in the ground color, mottled with dark gray. Sternum widest at between the 2nd and 3rd coxae; the end widely protruded, but not extending between 4th coxae. Legs very long, brown in color with faint yellow annulations on the tibiae and distal parts of femora. Leg formula 1, 4, 2, 3. Leg formular index 100 : 70 : 49 : 62. Leg I/C 24.99. Femur I/C 6.61. Abdomen cylindrical, about twice as long as the width(the index 51); pale yellowish gray with brownish gray patterns.

Male palp: The uncus reddish dark brown, Jew's-ear shaped. Embolus brownish yellow, the tip hairy. Prokursus broadly expanded towards inner ward at the terminal portion. Trochanter as shown in fig. 25.

Female(Allotype): Body length is 5.16mm. Chelicerae without frontal tooth-like prominence. Endite converging index 14. Leg formula 1, 2, 3, 4. Leg formular index 100 : 69 : 53 : 52. Abdominal index 58. Leg I/C 21.14. Femure I/C 5.35. Epigynum and genitalia as shown in figs. 26—28 and 29.

Specimens examined. *Holotype*: ♂, 15—Ⅷ—1964, Socheun, Bongwha-gun, Kyungpook, Collected by Kap Yong Paik. *Allotype*: ♀, Date, locality and collector the same as holotype. *Paratype*; Mt. Sulakk(19♀♀, 4Y♀♀, 1♂, 8—10—Ⅷ—1964, Kap Yong Paik), Socheun, Bongwha-gun, Kyungpook(10♀♀, 3♂♂, 15—16—Ⅶ—1964, K.Y.Paik, 1♂, 20—Ⅸ—1969, Yeung Kyu Jeung), Mt. Paikam-san, Urjin-gun, Kyungpook(2♂♂, 1—Ⅷ—1972, K.Y. Paik)

Diagnosis. Present species is easily distinguishable from the other species of the genus in the form of epigynum and detailed structure of male organ, especially in the shape of uncus, embolus, prokursus and the spur of thochanter.

Present species is very similar to *P. montanus* and *P. acutulus*, although, easily distinguishable from the *P. acutulus* by the detailed structure of prokursus of

male organ, and from the latter by the spur of trochanter which is not divided into two branches.

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21. *Pholcus crassus sp. nov.*, Male palp, Left, ectal view.
22. Same, Male palp, Right, frontal view.
23. Same, Uncus, embolus and bulb, Right, ectal view.
24. Same, Chelicera, Male, Right, frontal view.
25. Same, Trochanter of male palp, Left, ventral view.
26. Same, Epigynum.
27. Same, Epigynum, view of posterior end.
28. Same, Epigynum, lateral view.
29. Same, Genitalia, inner view.

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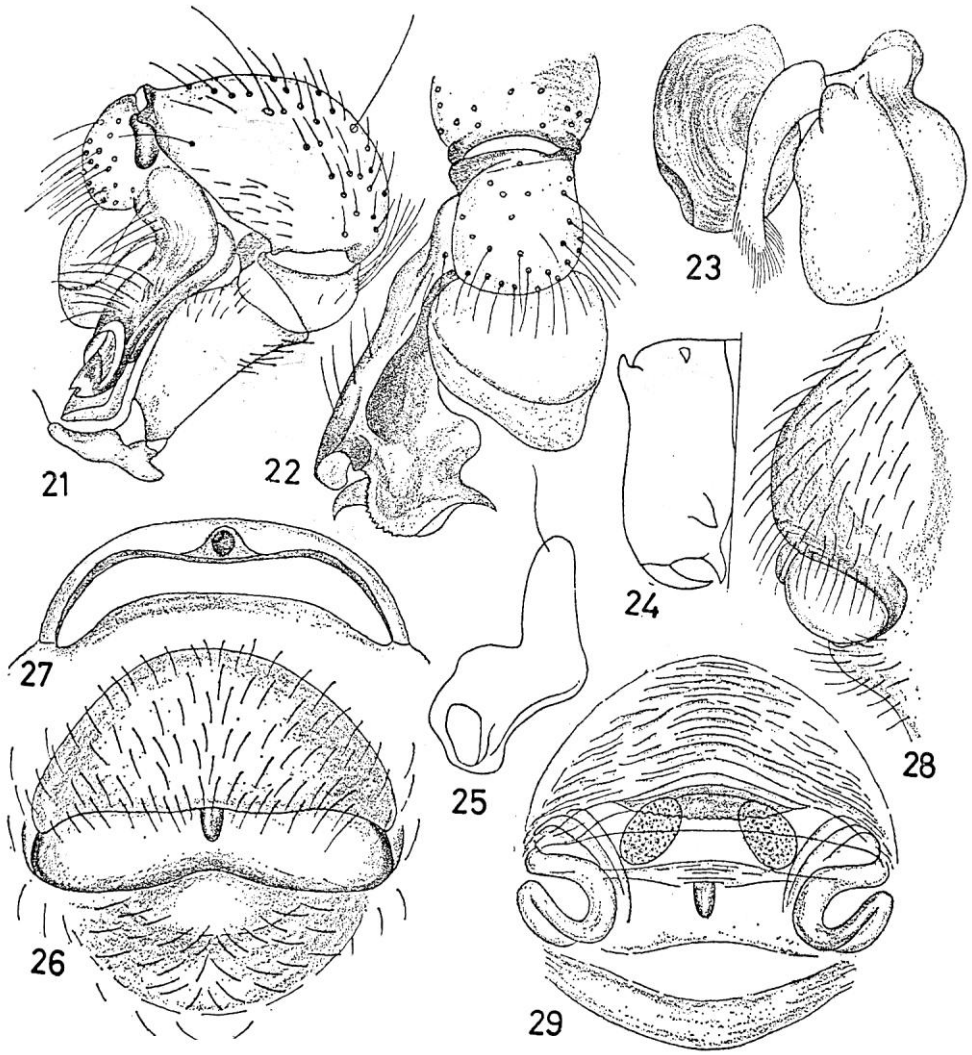

Namkung, J. 2003. The Spiders of Korea. Kyo-Hak Publishing Corporation, Seoul. 648 pp.

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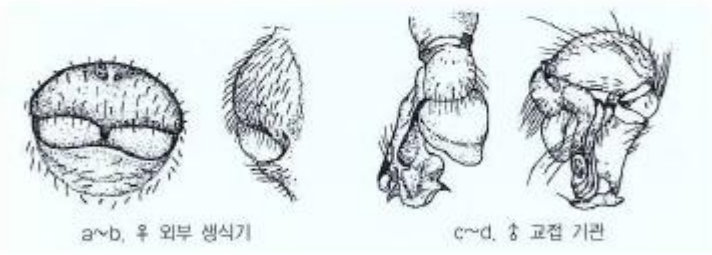
5-7 부채유령거미

Pholcus crassus Paik 1978

부채유령거미(♀)



a~b. ♀ 외부 생식기　　c~d. ♂ 교접 기관

- 몸 길이
  ♀ 5.2mm 내외
  ♂ 5.7mm 내외
- 출현기
  7~9월
- 분포
  한국(고유종)
- 모식 산지
  경북 봉화군 소천면(小川面)

배갑은 담황색 바탕에 산유령거미와 같은 회갈색의 꽃잎 모양의 무늬가 있다. 위턱은 암갈색으로 밑마디 앞 옆면에 뭉툭한 뿔 모양의 돌기가 있다. 가슴판은 노란색 바탕에 암회색 얼룩무늬가 있다. 다리가 매우 길며, 갈색 바탕에 넓적다리마디와 종아리마디에 노란색 고리무늬가 있다. 배는 긴 타원형으로 황백색 바탕에 회갈색 무늬가 있다. 산지성 거미로 바위 밑 등 침침한 곳에 있으며, 동굴 입구에서도 발견된다.

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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2157, 2158. *Ph. crassus*, male dorsal view; female abdomen, ventral view.

2169, 2170. *Ph. crassus*.

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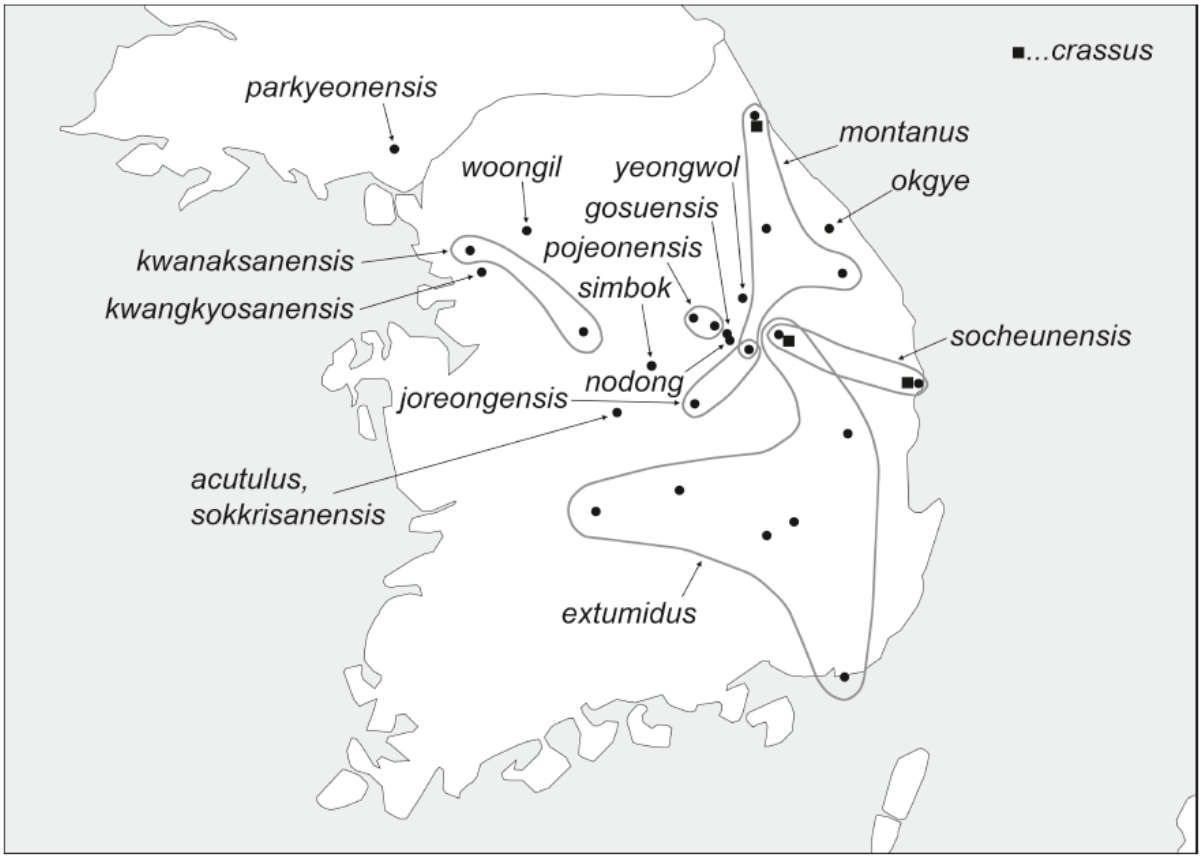

FIG. 2217. Known distribution of Korean representatives of the *Pholcus phungiformes* species group.

Pholcus crassus Paik, 1978

Figs. 2157, 2158, 2169, 2170, 2292-2295

Pholcus crassus Paik 1978b: 119-121, figs. 21-29.

Types. Male holotype and female "allotype" from South Korea, Kyungpook, Bongwha-gun, Socheun [36°59'N, 128°40'E], 15.viii.1964 (K.Y. Paik); further paratypes from type locality, from Mt. Sulakk [Gangwon-do Prov.: Mt. Seolaksan/Seoraksan, ~38°12'N, 128°32'E], and from "Mt. Paikan-san, Urjin-gun, Kyungpook" [Paikam-san, Uljin-gun, 36°43'N, 129°27'E] (complete data in Paik 1978b); all material in Kyungpook National University, not examined.

Note. The assignment of the specimens below to *Ph. crassus* is tentative. The specimens examined appear extremely similar to Paik's (1978b) drawings (except for the more elongate pore plates), and they originate from Uljin-gun which is probably identical to the paratype locality "Urjin-gun". Nevertheless, a direct comparison of specimens should be made.

Diagnosis. Distinguished from similar species without appendix by shapes of procursus and uncus (Figs. 2292-2294); *Ph. acutulus* has a similar uncus, but is easily distinguished by procursus shape.

Male (holotype). Total body length 5.2, carapace width 2.0. Leg 1: 49.9 (12.4 + 0.8 + 12.7 + 21.5 + 2.5), tibia 2: 8.5, tibia 3: 5.6, tibia 4: 7.5; tibia 1 L/d: 76. Habitus as in Fig. 2157. Carapace pale ochre-yellow with distinct brown pattern, ocular area with brown lateral margins and median brown line, clypeus brown, sternum anteriorly ochre with brown spots, posteriorly brown, legs pale ochre-whitish, with two darker rings on each femur and four on each tibia, abdomen pale ochre-gray with many black spots dorsally and laterally, ventrally only indistinct light brown mark at genital area (cf. female, Fig. 2158). Distance PME-PME 250 µm, diameter PME 150 µm, distance PME-ALE 45 µm, distance AME-AME 55 µm, diameter AME 135 µm. Ocular area moderately elevated, all eyes relatively close together, few hairs posteriorly. No thoracic furrow, only dark

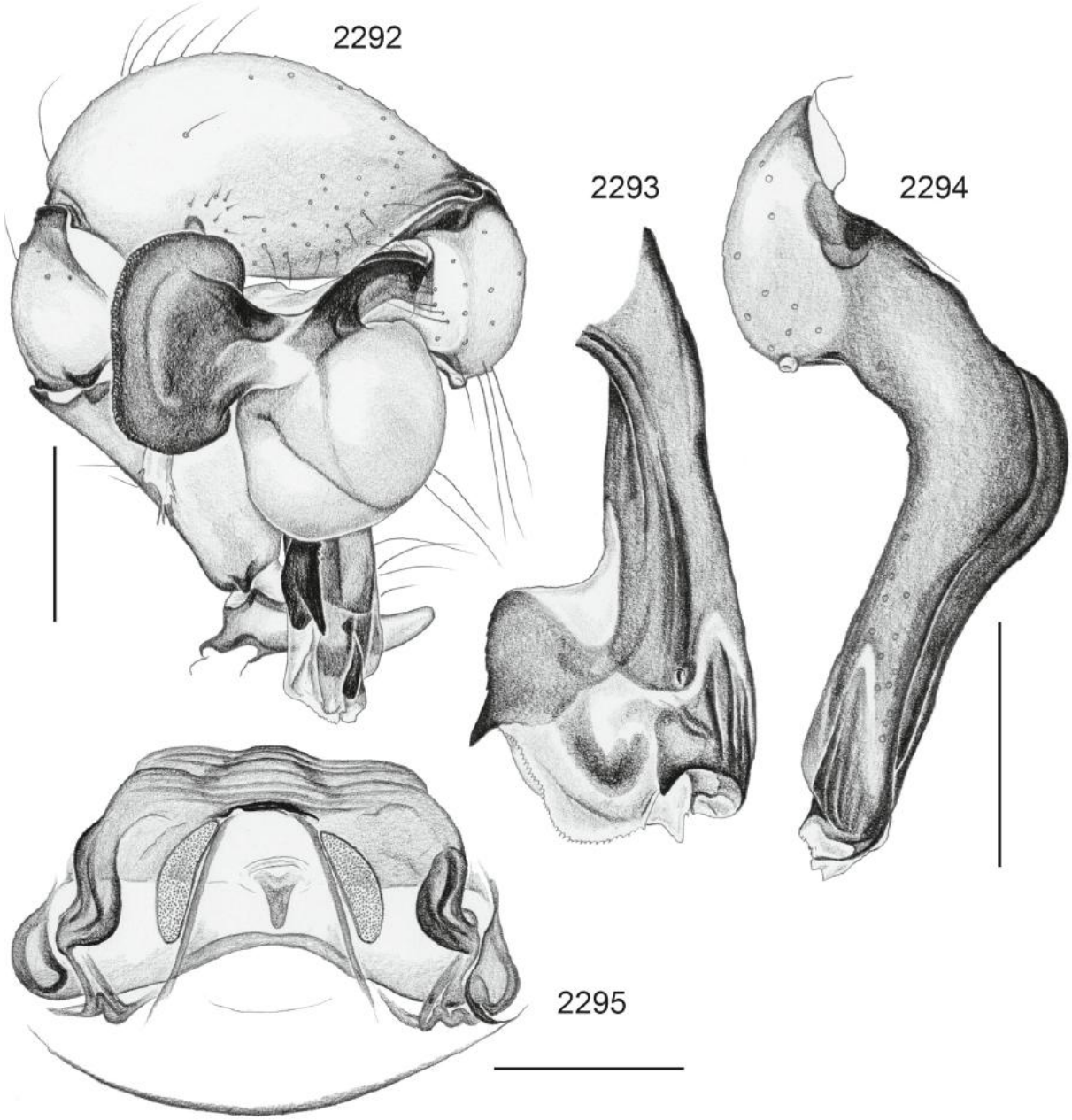

FIG. 2292-2295. *Pholcus crassus*. 2292. Left male palp, prolateral view. 2293, 2294. Left procursus, dorsal and retrolateral views (at same scale). 2295. Cleared female genitalia, dorsal view. Scale lines: 0.5.

line anteriorly; clypeus unmodified. Chelicerae as in *Ph. phungiformes* (cf. Fig. 2251), but frontal proximal apophyses slightly stronger. Sternum wider than long (1.25/0.90), unmodified. Palps as in Fig. 2292, coxa unmodified, trochanter with long retrolatero-ventral apophysis, femur slightly widened ventrally, tibia with prolatero-ventral modification (similar to *Ph. montanus*, *Ph. woongil*), procursus rather simple in retrolateral view (Fig. 2294), with large distinctive prolateral process (Fig. 2293), one dorsal spine, bulb with large oval uncus, weakly sclerotized embolus, no appendix. Legs without spines, with curved hairs on tibiae and metatarsi 1 and 2, few vertical hairs; retrolateral trichobothrium on tibia 1 at 5%; prolateral trichobothrium absent on tibia 1, present on other tibiae. Tarsus 1 with ~6 distinct pseudosegmental

rings distally, proximally broken into many smaller indistinct sclerites.

Female. In general similar to male, eye triads closer together (distance PME-PME 205 µm; note, however, that this seems to be a rather small specimen), sternum pattern slightly different (rather like in *Ph. simbok*: with median brown line posteriorly); rings on legs quite indistinct; tibia 1: 6.9. Epigynum with two pale lateral areas, with median 'knob', internal arc visible through cuticle anteriorly (Fig. 2169); internal genitalia as in Figs. 2170 and 2295, with narrow pore plates.

Distribution. Known from three localities in north-eastern South Korea (Fig. 2217).

Material examined. SOUTH KOREA: *Gyeongsang-buk-do*: Uljin-gun, entrance of Cave Youngchi (36°42.7'N, 129°26.6'E), 2.ii.2005 (B.W. Kim), 1♂1♀ in ZFMK.