Pholcus montanus Paik, 1978

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

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Pholcus montanus sp. nov.

(Figs. 13-20)

Measurements(mm.). *Male* (Holotype): BL-5. 16, CL-1. 77, CW-1. 72, LBL+SL-1.25, LBW-0.36, SW-1.18, EDL-0.69, EDW-0.21, AER-0.67, PER-0.74, AL-3.42, AW-1.66, Leg I 48.47(12.57, 0.77, 12.57, 20.29, 2.58), II 32.24(9.27, 0.72, 8.45, 13.18, 0.93), II 22.49(6.59, 0.72, 5.77, 8.39, 1.23), II 29.77(8.65, 0.72, 7.73, 11.33, 1.55). Palp 2.69(0.69, 0.44, 1.10, 0.46). *Female*(Allotype): BL-5.70, CL-1.61, CW-1.51, LBL+SL-1.08, LBW-0.36, SW-1.05, EDL-0.64, EDW-0.21, AER-0.61, PER-0.64, AL-3.94, AW-2.58. Leg I 35.28(8.76, 0.72, 9.06, 14.94, 2.06), II 24.77(6.75, 0.72, 6.28, 9.58, 1.65), II 18.49 (5.15, 0.62, 4.53, 6.59, 1.75), IV 24.36(7.00, 0.62, 6.13, 9.32, 1.44). Palp 1.38(0.41, 0.20, 0.28, 0.49).

Description. Male(Holotype): Body length 5.16mm. Carapace slightly longer than the width in the ratio of 100:97; pale yellow, with brownish gray dorsal pattern similar to that of P. crypticolens. Eight eyes on the cephalic tubercle, arranged in three groupes as usual in the genus Pholcus, and anterior median eyes dark and smallest, remainder pearl-white and subequal in size. Eye ratio, AME<ALE=PME=PLE(4:7:7:7). Anterior median eyes separated from each other by their radius, and from lateral eyes by slightly less than their radius. Posterior median eyes separated from each other by 1.5 times their diameter, from posterior lateral eyes one-seventh their diameter. Median ocular quadrangle wider behind than in front in the ratio of 20:11. and wider than long in ratio of 20:12. Anterior eyes row recurved in frontal view, posterior eyes row slightly recurved. Anterior eyes row shorter than the posterior ones, the index 91. Clypeus about four times the diameter of anterior median eye. Chelicerae dark brown; armed with three teeth-like prominences on the front 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 36; strongly converged distally in index 36. Labium entirely fused to sternum. Labium and sternum yellow in ground color, mottled with dark gray. The end of sternum broadly protruded, but not extending between 4th coxae. Legs very long; brown in ground color, with faint yellow annulations on the tibiae and distal parts of femora. Leg formula 1, 2, 4, 3; leg formular index 100:67:66:61. Leg I/C 27.38. Femur I/C 7.10. Abdomen cylindrical, pale yellowish gray with brownish gray patterns.

Male palp: prokursus reddish brown with a distinct spine on the mid point of inner side. The uncus reddish dark brown, Jew's-ear shaped. Appendix

reddish dark brown as the uncus, long horn shaped; run parallel with embolus. Embolus brownish yellow. The tibia with a keel on its inner side. Spur of trochanter with a thumb-like projection which bears a long bristle.

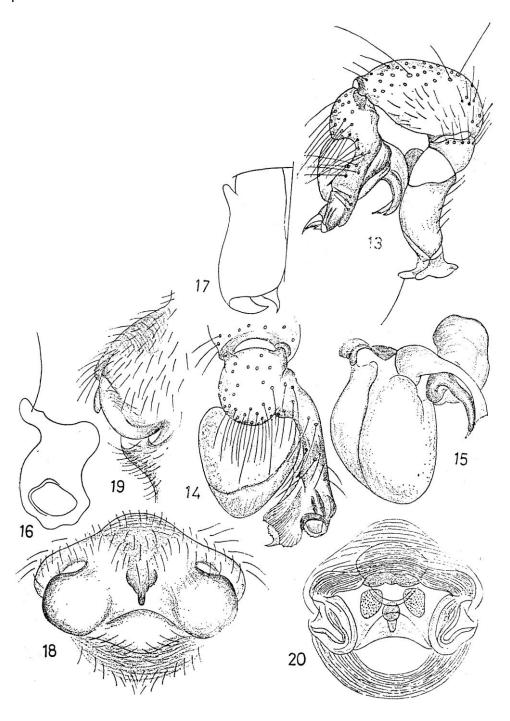
Female (Allotype): Body slightly larger than the male. Coloration and pattern similar to the male. Eye ratio, AME < ALE=PME=PLE(5:6:6:6). Median ocular quadrangle wider behind than in front in the ratio of 18:10, and wider than long in the ratio of 18:12. Eyes of the anterior row equidistant, separated from each other by slightly less than the radius of anterior median eye. Posterior median eyes separated from each other by 1.3 times their diameter, from posterior lateral eyes by one-sixth their diameter. Leg I/C 21.91. Femur I/C 5.44.

Specimens examined. *Holotype*: $^{\circ}$, 9-WI-1964, Mt. Sulakk, Collected by Kap Yong Paik. *Allotype*: $^{\circ}$, 31-WI-1962, Heebang-sa, Mt. Sopaik, Collected by Kap Yong Paik. *Paratype*: Mt. Sopaik(14 $^{\circ}$, 3Y $^{\circ}$, 8 $^{\circ}$, 10Y $^{\circ}$, 31-WI-1962, K.Y.Paik; 1 $^{\circ}$, 28-VI-1962, J. Namkung), Mt. Sulakk(3 $^{\circ}$, 9-10-WI-1964, K.Y.Paik)

Diagnosis. Present species very resembles to P. crypticolens, P. crassus, P. acutulus, P. sokkrisanensis, P. extumidus and P. socheuensis in the dorsal pattern of carapace. But present species is easily distinguishable from P. crypticolens, P. sokkrisanensis, P. extumidus and P. socheunensis by the shape of uncus of male organ, and is distinguishable from P. crassus and P. acutulus by the shape of trochanter of male palp.

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- 13. Pholcus montanus sp. nov., Male palp, Left, ectal view.
- 14. Same, Male palp, Left. frontal view.
- 15. Same, Uncus, embolus, appendage and bulb, Left, ectal view.
- 16. Same, Trochanter of male palp, Left, ventral view.
- 17. Same, Chelicera, Male, Right, frontal view.
- 18. Same, Epigynum.
- 19. Same, Epigynum, lateral view.
- 20. Same, Genitalia, inner view.



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

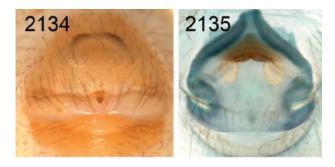
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2111. Ph. montanus, male,

dorsal view.

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2134,

2135. Ph. montanus.

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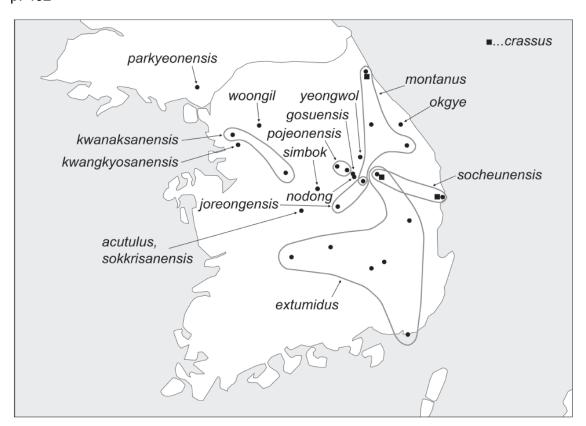


FIG. 2217. Known distribution of Korean representatives of the *Pholcus phungiformes* species group.

Pholcus montanus Paik, 1978 Figs. 2111, 2134, 2135, 2263-2267

Pholcus montanus Paik 1978b: 118-119, figs. 13-20.

Types. Male holotype from South Korea, Gangwon-do Prov., Mt. Sulakk [=Seolaksan, Seoraksan, ~38°12'N, 128°32'E], 9.viii.1964 (K.Y. Paik); 3♂ paratypes from same locality, 10.viii.1964; 8♂16♀ paratypes from South Korea, Mt. Sopaik [=Sobaeksan, ~36°57'N, 128°31'E], 28.vi.1962 (J. Namkung) and 31.vii.1962 (K.Y. Paik); all material in Kyungpook National University, South Korea, not examined.

Note. The assignment of the specimens below to *Ph. montanus* is tentative. The specimens examined appear extremely similar to Paik's (1978b) drawings of *Ph. montanus* (except for the shape of the anterior arc in the female internal genitalia) but a direct comparison of specimens should be made.

Diagnosis. Distinguished from similar species with 'pseudo-appendix' by shapes of procursus and uncus (Figs. 2263-2265).

Male (Mt. Odae). Total body length 5.7, carapace width 1.75. Leg 1: 58.0 (14.7 + 0.8 + 14.7 + 25.1 + 2.7), tibia 2: 9.9, tibia 3: 6.5, tibia 4: 8.8; tibia 1 L/d: 90. Habitus as in Fig. 2111. Carapace ochre-yellow with distinct brown pattern, ocular area with weak brown lateral margins and median brown band, clypeus partly darkened, sternum posterior half brown with large light areas near coxae 3 and 4 and with many small light spots, legs ochre-yellow with two darker rings on each femur and four on each tibia (median ones on tibiae poorly visible), abdomen

ochre-gray, many black spots dorsally and laterally, ventrally with light brown mark at genital area. Distance PME-PME 255 µm, diameter PME 140 µm, distance PME-ALE 55 µm, distance AME-AME 70 μm, diameter AME 115 μm. Ocular area moderately elevated, all eyes relatively close together, few hairs posteriorly. No thoracic furrow, only dark line anteriorly; clypeus unmodified. Chelicerae similar to Ph. phungiformes (cf. Fig. 2251). Sternum wider than long (1.25/0.90), unmodified. Palps as in Figs. 2263 and 2264, coxa unmodified, trochanter with retrolatero-ventral apophysis with short rounded retrolateral branch (cf. fig. 16 in Paik 1978b), femur ventrally widened, with low retrolateral hump, tibia with prolatero-ventral modification, procursus with distinctive distal structures, two short spines on low elevation, bulb with oval uncus, simple curved 'pseudo-appendix', weakly sclerotized embolus. Legs without spines, 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 but triads closer together (distance PME-PME 195 µm), entire clypeus brown; tibia 1: 8.6 (both). Epigynum consisting of large anterior and posterior plates, with 'knob', internal arc visible through cuticle anteriorly (Figs. 2134, 2266); internal genitalia as in Figs. 2135 and 2267.

Distribution. Known from several localities in northeastern South Korea (Fig. 2217).

Material examined. SOUTH KOREA: Gangwon-do: Pyeongchang-gun: Mt. Odae, Temple Woljung (37°34.3'N, 128°35.8'E), 4.ix.2005 (B.W. Kim), 1♂1♀ in ZFMK; Samcheok-si, entrance of cave Hwan-sun (37°19.4'N, 129°01.3'E), 1.ix.2005 (B.W. Kim), 1♀ in ZFMK.

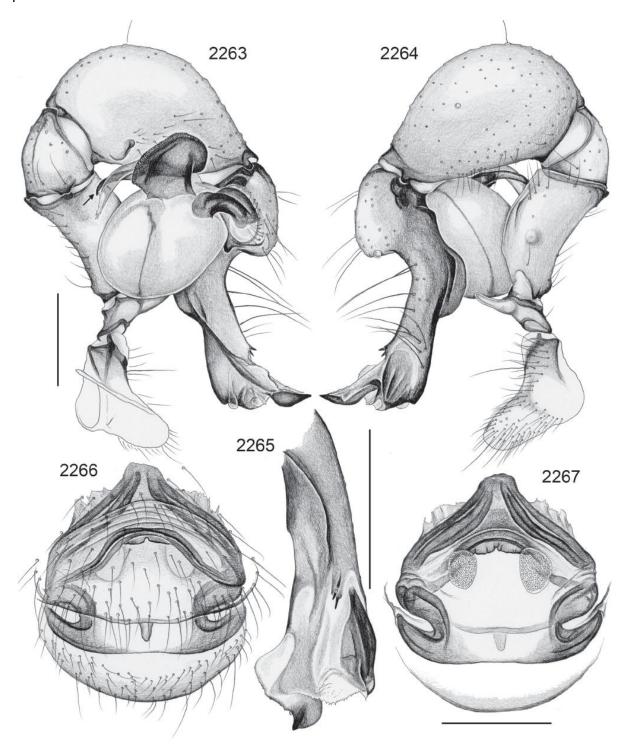


FIG. 2263-2267. *Pholcus montanus*. 2263, 2264. Left male palp, prolateral and retrolateral views (arrow points at 'pseudo-appendix'). 2265. Left procursus, dorsal view. 2266, 2267. Cleared female genitalia, ventral and dorsal views. Scale lines: 0.5.