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New species and records of the spider families Pholcidae, Uloboridae, Linyphiidae, Theridiidae, Phrurolithidae, and Thomisidae (Araneae) from Korea

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A new genus and 28 new species are described: *Collis* n. gen. (type species *Collis flavus* n. sp.), *Pholcus jindongensis* n. sp., *Pholcus piagolensis* n. sp., *Pholcus pyeongchangensis* n. sp., *Pholcus seorakensis* n. sp., *Pholcus uiseongensis* n. sp., *Octonoba bicornuta* n. sp., *Cnephalocotes ferrugineus* n. sp., *Diplocephaloides falcatus* n. sp., *Metopobactrus cornis* n. sp., *Pelecopsis bigibba* n. sp., *Pelecopsis brunea* n. sp., *Pelecopsis montana* n. sp., *Tapinocyba parva* n. sp., *Tapinocyba subula* n. sp., *Walckenaeria supercilia* n. sp., *Agyneta furcula* n. sp., *Arcuphantes chiakensis* n. sp., *Arcuphantes chilboensis* n. sp., *Arcuphantes longiconvolutus* n. sp., *Arcuphantes namweonensis* n. sp., *Arcuphantes pennatoides* n. sp., *Arcuphantes pyeongchangensis* n. sp., *Collis pusillus* n. sp., *Collis silvaticus* n. sp., *Doenitzius minutus* n. sp., *Nippononeta bituberculata* n. sp., and *Phrurolithus pennatoides* n. sp. Seven species are new to Korea: *Hylyphantes nigritus* (Simon, 1881), *Hypselistes australis* Saito and Ono, 2001, *Diplostyla concolor* (Wider, 1834), *Agyneta insulana* Tanasevitch, 2000, *Phoroncidia altiventris* Yoshida, 1985, *Theridula iriomotensis* Yoshida, 2001, and *Xysticus audax* (Schrank, 1803).

Keywords: Linyphiidae, Pholcidae, Phrurolithidae, Theridiidae, Thomisidae, Uloboridae

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Introduction

Twenty-seven species of the pholcid spider genus *Pholcus*, four species of the uloborid spider genus *Octonoba,* 46 genera and 96 species of the linyphiid spiders, one species of the theridiid spider genus *Phoroncidia*, eight species of the phrurolithid spider genus *Phrurolithus,* and thirteen species of the thomisid spider genus *Xysticus* have been described from Korea (Yoo *et al*., 2015; World Spider Catalog, 2018).

While studying specimens collected during the Korean indigenous species survey, the author identified a new genus, twenty-eight new species, and seven newly records to Korea of the spider families Pholcidae, Uloboridae, Linyphiidae, Theridiidae, Phrurolithidae, and Thomisidae. Descriptions of the new taxa are provided.

Materials and Methods

Specimens were examined, illustrated, and photographed using a stereomicroscope (Leica S8APO, Singapore) and digital camera (Leica DFC 420). Some microscopic images were stacked using image stacking software (i-Solution, Future Science Co. Ltd., Taejeon, Korea). Female genitalia were excised using sharpened needles. He measured leg segments and present the data using the following format: total (femur, patella, tibia, metatarsus, tarsus). The abbreviations used in the text follow Seo (2017): c, carapace length; d, p, r and v in leg spination are dorsal, prolateral, retrolateral and ventral side of legs, respectively; Leg I, length of leg I; AER, anterior eye row; ALE, anterior lateral eye; ALE-PLE, distance between ALE and PLE; AME, anterior median eye; AME-ALE, distance between AME and ALE; AME-AME, distance between AMEs; AME-PME, distance between AME and PME; PER, posterior eye row; PLE, posterior lateral eye; PME, posterior median eye; PME-PLE, distance between PME and PLE; PME-PME, distance between PMEs. All measurements in the text are given in millimeters. The type specimens are deposited in the National Institute of Biological Resources (NIBR), Ministry of Environment, Korea.

Results and Discussion

Order Araneae Clerck, 1757 거미목
Family Pholcidae C.L. Koch, 1850 유령거미과
Genus *Pholcus* Walckenaer, 1805 유령거미속

***Pholcus jindongensis* n. sp.**
진동유령거미 (신칭) (Figs. 1A-B, 2A-F)

Material examined. Holotype: ♂, mixed forest (37°58′15″N, 128°25′39″E, alt. 452 m), Jindong-ri, Girin-myeon, Inje-gun, Gangwon-do, 23 September 2009, S. Y. Kim. Paratypes: 7♂♂, 4♀♀, same data as holotype.
Etymology. The specific name comes from the type locality, Jindong Village.
Diagnosis. The new species is similar to *P. lingulatus* Gao, Gao and Zhu, 2002 in the spines on the distal part of procursus ridge, but can be distinguished from the latter by the distal processes of the procursus, uncus, and the genitalia of female (Fig. 2A-F).
Description. Male (holotype). Total length 5.50. Habitus as in Figure 1A. Carapace 1.70 long, 1.80 wide, circular and yellow, with brown radiated stripes. Clypeus height 4.8 times of diameter of AME. AER 0.66, PER 0.73. AME 0.13, ALE 0.18, PME 0.17, PLE 0.18, AME-AME 0.05, AME-ALE 0.04, PME-PME 0.22, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (37:27:21). Sternum 0.88 long, 1.03 wide. Labium 0.35 wide. Leg measurements: I 50.20 (12.70, 0.70, 12.70, 21.70, 2.40), II 33.50 (9.30, 0.70, 8.50, 13.30, 1.70), III 22.10 (6.50, 0.60, 5.40, 8.30, 1.30), IV 29.50 (8.60, 0.60, 7.30, 11.50, 1.50). Leg I/c 29.53. Fem. I/c 7.47. Tib. I/c 7.47. Met. I/c 12.76. Pat. I + tib. I/c 7.88. Met. I/tar. I 9.04. Met. IV/tar. IV 7.67. Abdomen 3.70 long, 1.70 wide, and cylindrical; dorsum yellow with brown dots. Palp (Fig. 2A-D): trochanter with a long blunt apophysis; procursus with four membranous and sclerotized processes distally, and two long spines on distal part of longitudinal ridge; bulb with round uncus, embolus with feather-like tip, and very small appendix.

Female (paratype). Total length 5.80. Habitus as in Figure 1B. Carapace 1.70 long, 1.60 wide. Clypeus height 6.1 times of diameter of AME. AER 0.62, PER 0.68. AME 0.10, ALE 0.20, PME 0.16, PLE 0.17, AME-AME 0.05, AME-ALE 0.05, PME-PME 0.21, PME-PLE 0.03, AME-PME 0.08, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (35:25:19). Sternum 0.80 long, 1.00 wide. Labium 0.33 wide. Leg measurements: I 33.1. (8.30, 0.70, 8.40, 13.50, 2.20), II 23.50 (6.40, 0.70, 5.90, 9.00, 1.50), III 17.40 (5.00, 0.60, 4.20, 6.50, 1.10), IV 23.30 (6.80, 0.60, 5.80, 8.70, 1.40). Leg I/c 19.47. Fem. I/c 4.88. Tib. I/c 4.94. Met. I/c 7.94. Pat. I + tib. I/c 5.35. Met. I/tar. I 6.14. Met. IV/tar. IV 6.21. Abdomen 4.90 long, 2.30 wide, and elongate. Epigynum: anterior plate with medial projection posteriorly; posterior plate with a small knop; internal genitalia with a pair of pore plates (Fig. 2E-F).
Habitat. Mixed forest.
World Distribution. Korea (Gangwon-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

***Pholcus piagolensis* n. sp.**
피아골유령거미 (신칭) (Figs. 1C-D, 2G-L)

Material examined. Holotype: ♂, mixed forest (35°16′00″N, 127°34′45″E, alt. 447 m), Toji-myeon, Gurye-gun, Jeollanam-do, 27 September 2014, B. K. Seo. Paratypes: 2♀♀, same data as holotype.
Etymology. The specific name comes from the type locality, Piagol valley in Mt. Jiri.
Diagnosis. The new species is very similar to *P. juwangensis* Seo, 2014 in the procursus of male palp, but different from the latter by the procursus without stout spine on low elevation, the tip length of prolateral curved process of procursus, the shape of uncus, the posterior margin of epigynum, and the anterior sclerotized transverse plate of internal genitalia (Fig. 2G-L).
Description. Male (holotype). Total length 5.10. Habitus as in Figure 1C. Carapace 1.60 long, 1.55 wide, circular and yellow, with brown radiated stripes. Clypeus height 4.9 times of diameter of AME. AER 0.69, PER 0.74. AME 0.13, ALE 0.17, PME 0.16, PLE 0.18, AME-AME 0.08, AME-ALE 0.04, PME-PME 0.16, PME-PLE 0.05, AME-PME 0.04, and ALE-PLE 0.04. Median ocular quadrangle, posterior side > height > anterior side (31:25:23). Sternum 0.78 long, 1.00 wide. Labium 0.35 wide. Leg measurements: I 43.40 (10.70, 0.70, 10.70, 18.60, 2.70), II 29.00 (7.80, 0.70, 7.10, 11.80, 1.60), III 20.30 (5.90, 0.70, 4.90, 1.60, 1.20), IV 27.10 (7.80, 0.60, 6.80, 10.40, 1.50). Leg I/c 27.13. Fem. I/c 6.69. Tib. I/c 6.69. Met. I/c 11.63. Pat. I + tib. I/c 7.13. Met. I/tar. I 6.89. Met. IV/tar. IV 6.93. Abdomen 3.40 long, 1.40 wide, and cylindrical; dorsum yellow with brown dots. Palp (Fig. 2G-J): trochanter with a blunt apophysis; procursus with distinctive prolateral curved process, without stout spine on low elevation; bulb with round uncus, embolus with feather-like tip, and very small appendix.

Female (paratype). Total length 4.90. Habitus as in Figure 1D. Carapace 2.00 long, 1.50 wide. Clypeus height 5.4 times of diameter of AME. AER 0.57, PER 0.64. AME 0.10, ALE 0.13, PME 0.13, PLE 0.14, AME-AME 0.02, AME-ALE 0.05, PME-PME 0.20, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (33:23:17). Sternum 0.68 long, 0.93 wide. Labium 0.33 wide. Leg measurements: I 31.70 (7.90, 0.60, 7.90,

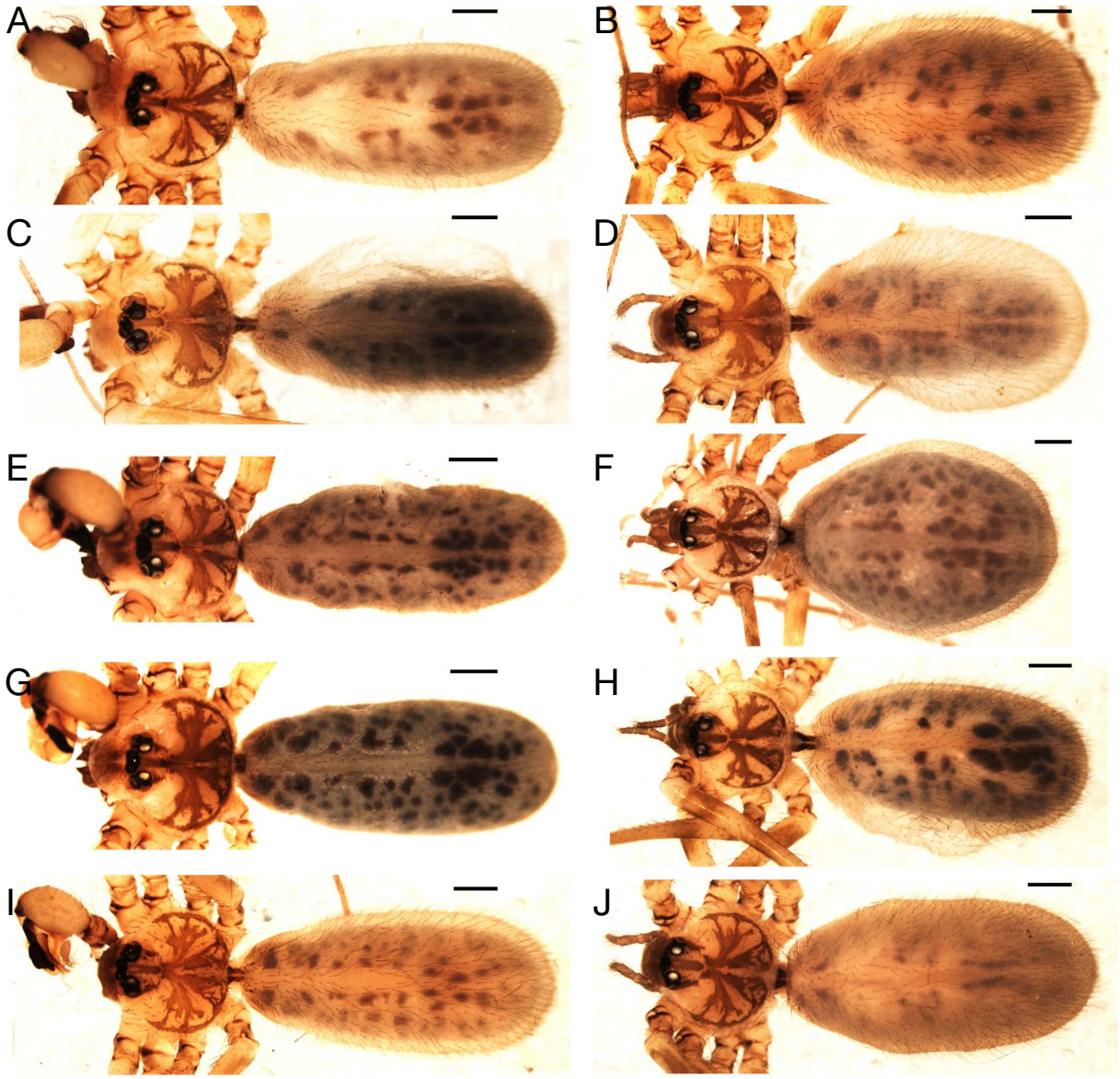


Fig. 1. Habitus of five *Pholcus* species: A - *P. jindongensis* n. sp., male; B - idem, female; C - *P. piagolensis* n. sp., male; D - idem, female; E - *P. pyeongchangensis* n. sp., male; F - idem, female; G - *P. seorakensis* n. sp., male; H - idem, female; I - *P. uiseongensis* n. sp., male; J - idem, female. Scale bars: 0.5 mm.

13.20, 2.10), II 22.00 (6.00, 0.60, 5.40, 8.50, 1.50), III 16.00 (4.60, 0.60, 3.80, 5.90, 1.10), IV 22.10 (6.30, 0.60, 5.40, 8.40, 1.40). Leg I/c 15.85. Fem. I/c 3.95. Tib. I/c 3.95. Met. I/c 6.60. Pat. I + tib. I/c 4.25. Met. I/tar. I 6.29. Met. IV/tar. IV 6.00. Abdomen 3.30 long, 2.00 wide, and elongate. Epigynum: anterior plate with horizontal posterior margin; posterior plate with a knop; internal genitalia with a pair of pore plates and sclerotized transverse plate anteriorly (Fig. 2K-L).

Habitat. Mixed forest.

World Distribution. Korea (Jeollanam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Pholcus pyeongchangensis* n. sp.**
평창유령거미 (신칭) (Figs. 1E-F, 3A-F)

Material examined. Holotype: ♂, mixed forest (37°41′43″N, 128°30′14″E, alt. 950 m), Jinbu-myeon, Pyeongchang-gun, Gangwon-do, 10 June 2010, J. C. Lim. Paratype: 1♀, same data as holotype.

Etymology. The specific name comes from the type lo-

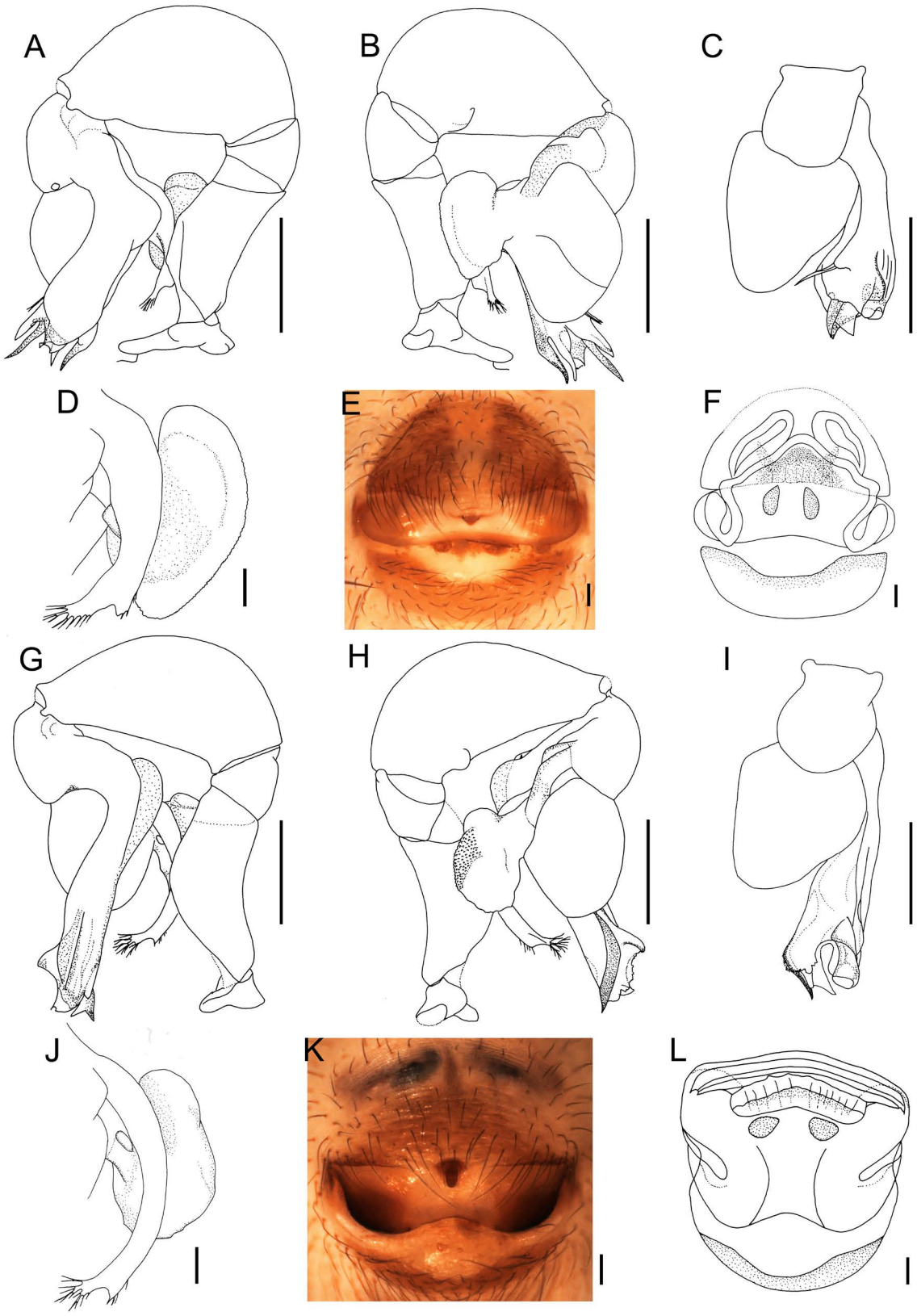


Fig. 2. *Pholcus jindongensis* n. sp. (A-F) and *Pholcus piagolensis* n. sp. (G-L): A, G - male left palp, retrolateral view; B, H - idem, prolateral view; C, I - idem, genital bulb and procursus, dorsal view; D, J - idem, embolus and uncus, retrolateral view; E, K - epigynum; F, L - internal genitalia. Scale bars: 0.5 mm (A-C, G-I), 0.1 mm (D-F, J-L).

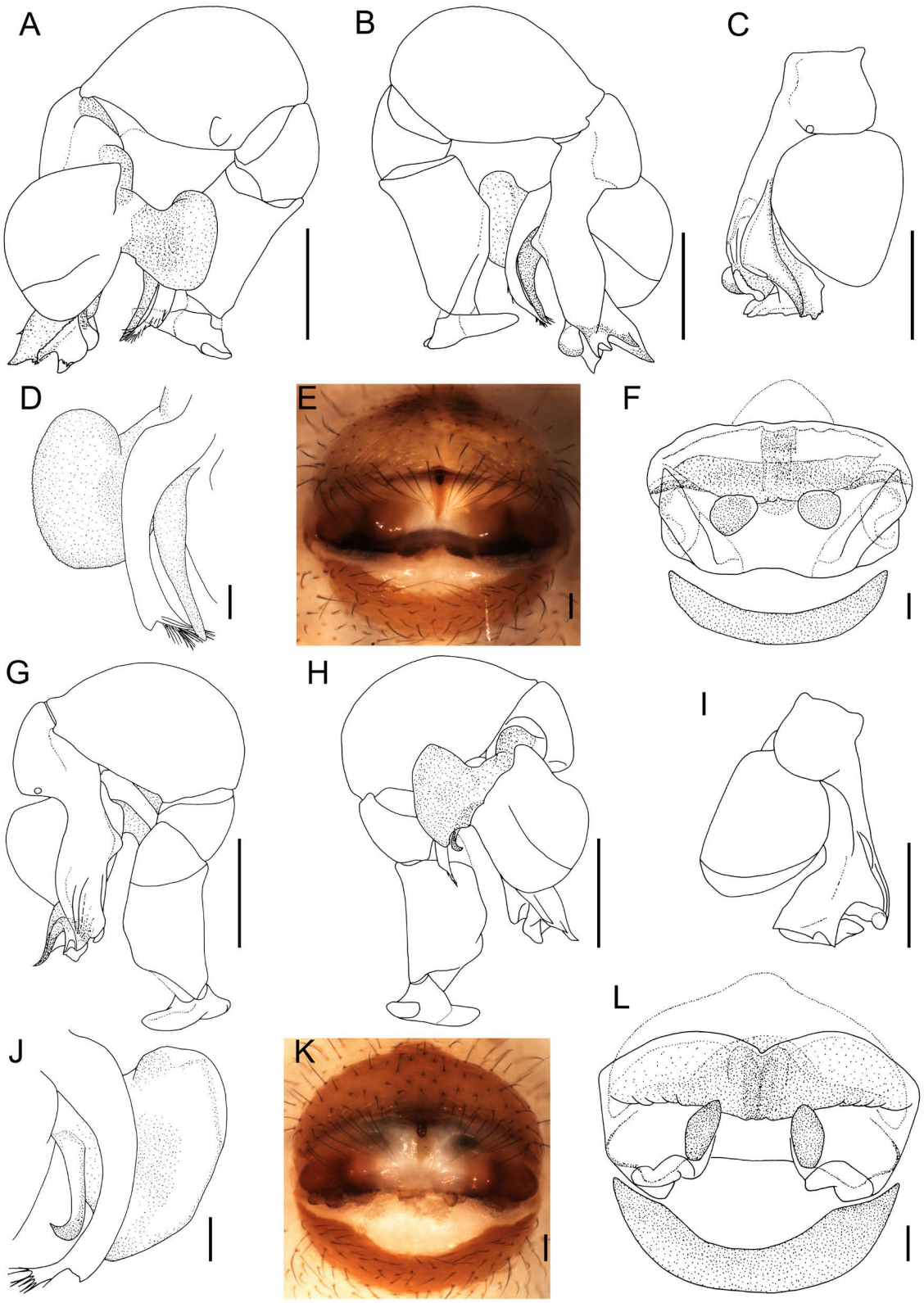


Fig. 3. *Pholcus pyeongchangensis* n. sp. (A-F) and *Pholcus seorakensis* n. sp. (G-L): A - male right palp, prolateral view; B - idem, retrolateral view; C - idem, genital bulb and procursus, dorsal view; D - idem, embolus and uncus, retrolateral view; E, K - epigynum; F, L - internal genitalia; G - male left palp, retrolateral view; H - idem, prolateral view; I - idem, genital bulb and procursus, dorsal view; J - idem, embolus and uncus, retrolateral view. Scale bars: 0.5 mm (A-C, G-I), 0.1 mm (D-F, J-L).

cality, Pyeongchang County.

Diagnosis. The new species is similar to *P. montanus* Paik, 1978 in the distal part of procursus, uncus and appendix of the male palp, but easily distinguished from the latter by the detailed structure of the procursus, uncus and appendix, the shape of epigynal knob and posterior plate of female (Fig. 3A-F).

Description. Male (holotype). Total length 5.20. Habitus as in Figure 1E. Carapace 1.60 long, 1.50 wide, circular and yellow, with brown radiated stripes. Clypeus height 5 times of diameter of AME. AER 0.65, PER 0.72. AME 0.12, ALE 0.17, PME 0.16, PLE 0.17, AME-AME 0.05, AME-ALE 0.05, PME-PME 0.25, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (38:26:21). Sternum 0.75 long, 1.03 wide. Labium 0.33 wide. Leg measurements: I 38.60 (9.70, 0.60, 9.90, 16.00, 2.40), II 25.60 (7.20, 0.60, 6.30, 9.90, 1.60), III 17.90 (5.20, 0.60, 4.30, 6.60, 1.20), IV 23.60 (6.90, 0.60, 5.90, 8.80, 1.40). Leg I/c 24.03. Fem. I/c 6.06. Tib. I/c 6.19. Met. I/c 10.00. Pat. I + tib. I/c 6.56. Met. I/tar. I 6.67. Met. IV/tar. IV 6.29. Abdomen 3.60 long, 1.40 wide, and cylindrical; dorsum yellow with brown dots. Palp (Fig. 3A-D): trochanter with a pointed apophysis; procursus with elongated ridge forming broad chitinized membrane and a sharp process distally; bulb with round uncus, embolus with feather-like tip, and a long pointed appendix.

Female (paratype). Total length 5.60. Habitus as in Figure 1F. Carapace 1.50 long, 1.60 wide. Clypeus height 3.9 times of diameter of AME. AER 0.59, PER 0.65. AME 0.12, ALE 0.16, PME 0.16, PLE 0.16, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.21, PME-PLE 0.03, AME-PME 0.08, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (33:25:19). Sternum 0.78 long, 1.03 wide. Labium 0.33 wide. Leg measurements: I lost, II 21.30 (5.90, 0.60, 5.20, 8.20, 1.40), III 15.60 (4.40, 0.60, 3.70, 5.80, 1.10), IV 21.40 (6.10, 0.60, 5.30, 8.00, 1.40). Abdomen 3.80 long, 2.90 wide, and oval. Epigynum: anterior plate with slightly concave posterior margin; posterior plate with a small knop; internal genitalia with a pair of pore plates and sclerotized broad plate anteriorly (Fig. 3E-F).

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Pholcus seorakensis* n. sp.**
설악유령거미 (신칭) (Figs. 1G-H, 3G-L)

Material examined. Holotype: ♂, mixed forest (38°11′31″N, 128°21′26″E, alt. 383 m), Buk-myeon, Inje-gun, Gangwon-do, 8 June 2010, J. C. Lim. Paratypes: 1♂, 2♀♀, same data as holotype.

Etymology. The specific name comes from the type locality, Mt. Seorak.

Diagnosis. The new species resembles *P. chiakensis* Seo, 2014 in the retrolateral view of male palp, but can be distinguished from the latter by the distal margin of procursus, the shapes of uncus tip and appendix, the anterior plate of epigynum and anterior chitinized plate of internal genitalia (Fig. 3G-L).

Description. Male (holotype). Total length 5.30. Habitus as in Figure 1G. Carapace 1.70 long, 1.60 wide, circular and yellow, with brown radiated stripes. Clypeus height 5 times of diameter of AME. AER 0.64, PER 0.69. AME 0.12, ALE 0.16, PME 0.16, PLE 0.17, AME-AME 0.07, AME-ALE 0.04, PME-PME 0.22, PME-PLE 0.04, AME-PME 0.07, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (38:25:21). Sternum 0.80 long, 1.05 wide. Labium 0.33 wide. Leg measurements: I 44.80 (11.90, 0.70, 11.10, 18.90, 2.20), II 30.10 (8.20, 0.60, 7.50, 12.20, 1.60), III 20.90 (5.80, 0.60, 1.70, 8.60, 1.20), IV 26.70 (7.70, 0.60, 6.70, 10.30, 1.40). Leg I/c 26.35. Fem. I/c 7.00. Tib. I/c 6.53. Met. I/c 11.12. Pat. I + tib. I/c 6.94. Met. I/tar. I 8.59. Met. IV/tar. IV 7.36. Abdomen 3.60 long, 1.50 wide, and elongate; dorsum yellow with brown dots. Palp (Fig. 3G-J): trochanter with a blunt apophysis; chtinized broad membrane with three processes at margin, below procursus ridge; bulb with blunt tipped uncus, embolus with feather-like tip, and a hook-shaped appendix.

Female (paratype). Total length 5.10. Habitus as in Figure 1H. Carapace 1.50 long, 1.40 wide. Clypeus height 4.5 times of diameter of AME. AER 0.60, PER 0.62. AME 0.10, ALE 0.17, PME 0.14, PLE 0.17, AME-AME 0.05, AME-ALE 0.04, PME-PME 0.18, PME-PLE 0.01, AME-PME 0.07, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (33:24:19). Sternum 0.75 long, 1.00 wide. Labium 0.33 wide. Leg measurements: I 29.00 (7.20, 0.60, 7.30, 11.90, 2.00), II 20.30 (5.50, 0.60, 5.20, 7.70, 1.30), III 15.10 (4.30, 0.60, 3.80, 5.40, 1.00), IV 20.40 (6.00, 0.60, 5.20, 7.40, 1.20). Leg I/c 19.33. Fem. I/c 4.80. Tib. I/c 4.87. Met. I/c 7.93. Pat. I + tib. I/c 5.27. Met. I/tar. I 5.95. Met. IV/tar. IV 6.17. Abdomen 3.40 long, 2.10 wide, and elongate. Epigynum: anterior plate with slightly concave posterior margin; posterior plate with a blunt knop; internal genitalia with a pair of pore plates and sclerotized broad plate anteriorly (Fig. 3K-L).

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Pholcus uiseongensis* n. sp.**
의성유령거미 (신칭) (Figs. 1I-J, 4A-F)

Material examined. Holotype: ♂, mixed forest (36°27′28″N, 128°44′29″E, alt. 222 m), Danchon-myeon, Uiseong-gun, Gyeongsangbuk-do, 8 October 2009, J. S. Park. Paratypes: 11♂♂, 4우우, same data as holotype.
Etymology. The specific name comes from the type locality, Uiseong County.
Diagnosis. The new species is similar to *P. juwangensis* Seo, 2014 and *P. palgongensis* Seo, 2014 in the procursus with prolateral curved process at distal part of ridge, the shapes of epigynum and internal genitalia, but can be distinguished from *P. juwangensis* by the procursus without a short stout spine on low elevation and the hooked appendix, and from *P. palgongensis* by the hooked appendix and the angled-tipped uncus (Fig. 4A-B, D).
Description. Male (holotype). Total length 5.50. Habitus as in Figure 1I. Carapace 1.60 long, 1.60 wide, circular and yellow, with brown radiated stripes. Clypeus height 4.9 times of diameter of AME. AER 0.65, PER 0.72. AME 0.13, ALE 0.16, PME 0.16, PLE 0.16, AME-AME 0.05, AME-ALE 0.04, PME-PME 0.23, PME-PLE 0.05, AME-PME 0.08, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (36:27:23). Sternum 0.78 long, 0.95 wide. Labium 0.33 wide. Leg measurements: I 38.10 (9.80, 0.60, 9.80, 15.90, 2.00), II 26.00 (7.30, 0.60, 6.50, 10.20, 1.40), III 18.20 (5.40, 0.60, 4.40, 6.70, 1.10), IV 24.40 (7.10, 0.60, 6.10, 9.30, 1.30). Leg I/c 23.81. Fem. I/c 6.13. Tib. I/c 6.13. Met. I/c 9.94. Pat. I + tib. I/c 6.50. Met. I/tar. I 7.95. Met. IV/tar. IV 7.15. Abdomen 4.80 long, 1.80 wide, and elongate; dorsum yellow with brown dots. Palp (Fig. 4A-D): trochanter with a blunt apophysis; procursus with prolateral curved process at distal part of ridge, without stout spine on low elevation; bulb with angled-tipped uncus, embolus with feather-like tip, and a hook-shaped appendix.

Female (paratype). Total length 5.40. Habitus as in Figure 1J. Carapace 1.60 long, 1.60 wide. Clypeus height 4.7 times of diameter of AME. AER 0.61, PER 0.66. AME 0.13, ALE 0.17, PME 0.14, PLE 0.16, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.22, PME-PLE 0.03, AME-PME 0.08, and ALE-PLE 0.03. Median ocular quadrangle, posterior side > height > anterior side (33:25:21). Sternum 0.70 long, 1.00 wide. Labium 0.33 wide. Leg measurements: I 29.90 (7.60, 0.60, 7.70, 11.90, 2.10), II 20.90 (5.70, 0.60, 5.30, 7.90, 1.40), III 15.20 (4.40, 0.50, 3.60, 5.60, 1.10), IV 21.20 (6.20, 0.60, 5.30, 7.90, 1.20). Leg I/c 18.69. Fem. I/c 4.75. Tib. I/c 4.81. Met. I/c 7.44. Pat. I + tib. I/c 5.19. Met. I/tar. I 5.67. Met. IV/tar. IV 6.58. Abdomen 3.70 long, 1.80 wide, and elongate. Epigynum: anterior plate with concave posterior margin; posterior plate with a blunt knop; internal genitalia with a pair of pore plates and sclerotized plate anteriorly (Fig. 4E-F).
Habitat. Mixed forest.
World Distribution. Korea (Gyeongsangbuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Family Uloboridae Thorell, 1869 응달거미과
Genus *Octonoba* Opell, 1979 중국응달거미속

***Octonoba bicornuta* n. sp.**
쌍뿔응달거미 (신칭) (Fig. 4G-K)

Material examined. Holotype: 우, grassland (36°49′38″N, 128°58′09″E, alt. 321 m), Jaesan-myeon, Bonghwa-gun, Gyeongsangbuk-do, 22 June 2010, J. C. Lim. Paratype: 1우, same data as holotype.
Etymology. The specific name is a Latin adjective "*bicornutus*" (two-horned), referring to a pair of anterior projections of epigynum.
Diagnosis. The new species is similar to *O. kentingensis* Yoshida, 2012 and *O. lanyuensis* Yoshida, 2012 in the anterior projection of epigynum, but different from the latter two species by the size of epigynal projection, the shapes of copulatory ducts and spermatheca (Fig. 4I-K).
Description. Female (holotype). Total length 6.10. Habitus as in Figure 4G-H. Carapace reddish brown except brownish medial posterior, 1.80 long, 1.55 wide. Clypeus height 1.6 times of diameter of AME. AER 0.85, PER 0.87. AME 0.14, ALE 0.09, PME 0.12, PLE 0.13, AME-AME 0.07, AME-ALE 0.22, PME-PME 0.22, PME-PLE 0.16, AME-PME 0.20, and ALE-PLE 0.21. Median ocular quadrangle, posterior side > height > anterior side (35:33:25). Chelicera with four promarginal teeth and 40 microscopic teeth at distal part of fang furrow. Sternum 1.24 long, 0.85 wide. Labium 0.26 long, 0.33 wide. Leg measurements: I 10.00 (3.00, 0.90, 2.50, 2.55, 1.05), II 6.05 (1.90, 0.65, 1.20, 1.55, 0.75), III 4.50 (1.45, 0.55, 0.75, 1.10, 0.65), IV 6.95 (2.15, 0.75, 1.55, 1.50, 1.00). Leg I/c 5.56. Fem. I/c 1.67. Tib. I/c 1.39. Met. I/c 1.42. Pat. I + tib. I/c 1.89. Met. I/tar. I 2.43. Met. IV/tar. IV 1.50. Calamistrum on two-thirds of Metatarsus IV. Abdomen oval and distended anteriorly, and 4.25 long, 2.95 wide. Epigynum: atrium wide with a pair of anterior projections around copulatory openings; internal genitalia with a pair of spermathecae and short copulatory ducts. (Fig. 4I-K).
Habitat. Grassland.
World Distribution. Korea (Gyeongsangbuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Family Linyphiidae Blackwall, 1859 접시거미과
Genus *Cnephalocotes* Simon, 1884
곰접시거미속 (신칭)

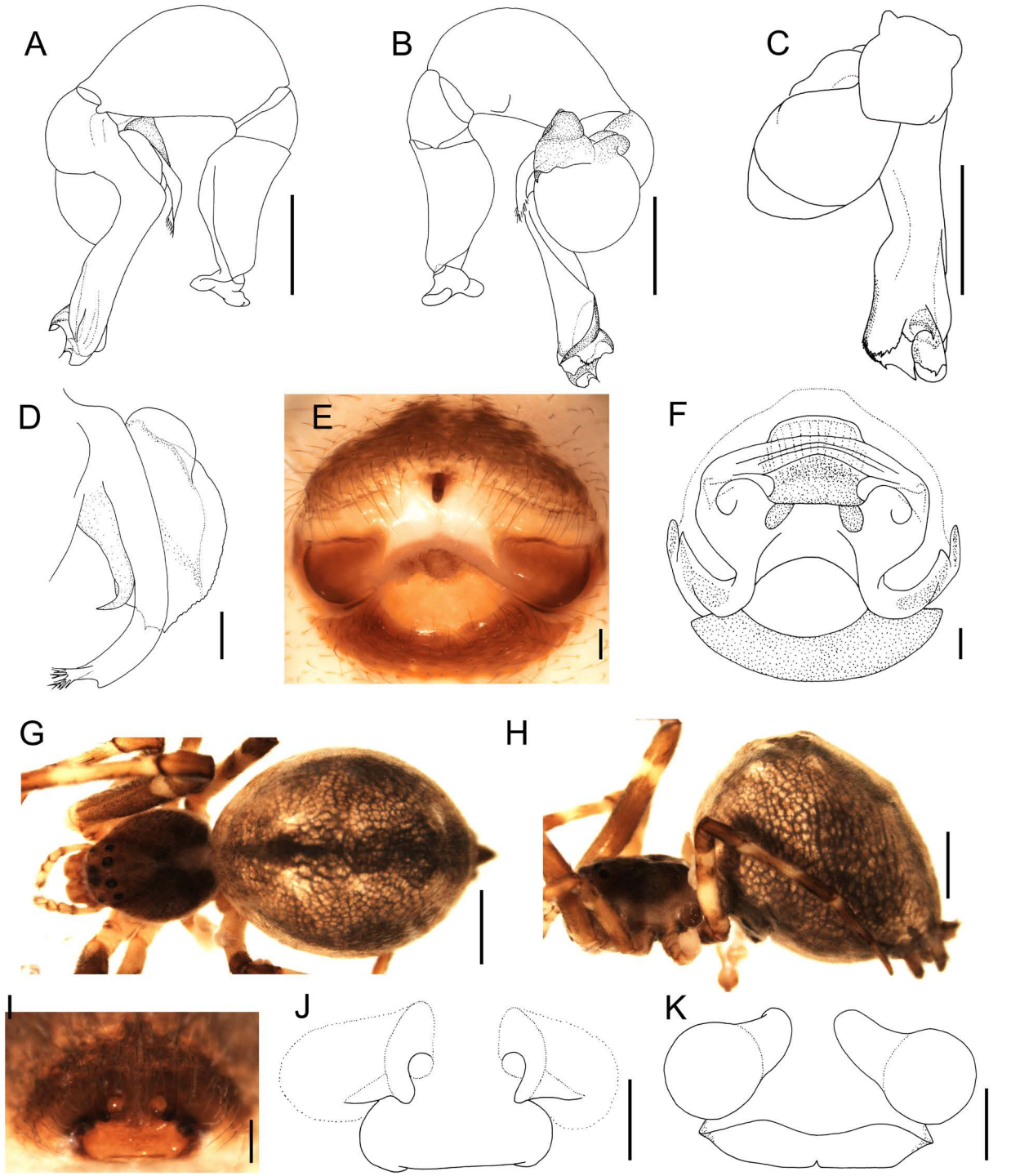


Fig. 4. *Pholcus uiseongensis* n. sp. (A-F) and *Octonoba bicornuta* n. sp. (G-K): A - male left palp, retrolateral view; B - idem, prolateral view; C - idem, genital bulb and procursus, dorsal view; D - idem, embolus and uncus, retrolateral view; E, I-J - epigynum; F, K - internal genitalia; G - female dorsal view; H - idem, lateralview. Scale bars: 1.0 mm (G-H), 0.5 mm (A-C), 0.1 mm (D-F, I-K).

***Cnephalocotes ferrugineus* n. sp.**
적갈곰접시거미 (신칭) (Figs. 5A-B, 7A-E)

Material examined. Holotype: ♂, mixed forest (36°48′29″N, 129°05′25″E, alt. 1130 m), Cheonggi-myeon, Yeongyang-gun, Gyeongsangbuk-do, 13 November 2009, S. Y. Kim. Paratype: 1♀, same data as holotype.

Etymology. The specific name is a Latin adjective "*fer-*

rugineus" (ferruginous), referring to the color of carapace of type specimen.

Diagnosis. The new species is very similar to *C. obscurus* (Blackwall, 1834) in general appearance and the male palp, but different from the latter by the shape of retrolateral tibial apophysis, retrolateral tibial tooth, absence of tibial bristles, a pair of ventral plate scapes, and the shape of spermatheca of female genitalia (Fig. 7A-E).

Description. Male (holotype). Total length 1.90. Habitus as in Figure 5A. Carapace ferruginous, 0.92 long, 0.82 wide. Clypeus height 4.5 times of diameter of AME. AER 0.36, PER 0.38. AER recurved slightly and PER procurved in dorsal view. AME 0.05, ALE 0.09, PME 0.08, PLE 0.08, AME-AME 0.03, AME-ALE 0.05, PME-PME 0.09, PME-PLE 0.08, AME-PME 0.12, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (20:17:11). Chelicera with four promarginal and retromarginal teeth. Sternum 0.52 long, 0.61 wide. Labium 0.17 wide. Leg measurements: I 2.71 (0.75, 0.23, 0.65, 0.60, 0.48), II 2.58 (0.73, 0.23, 0.60, 0.56, 0.46), III 2.15 (0.61, 0.22, 0.46, 0.48, 0.38), IV 2.73 (0.78, 0.23, 0.69, 0.60, 0.43). Leg I/c 2.95. Fem. I/c 0.82. Tib. I/c 0.71. Met. I/c 0.65. Pat. I + tib. I/c 0.96. Met. I/tar. I 1.25. Met. IV/tar. IV 1.40. Chaetotaxy 1-1-1-1. Tm 1 0.35, Tm IV absent. Abdomen oval and dark brown, with two pairs of pale dots, and 1.24 long, 1.00 wide. Palp (Fig. 7A-B): tibia with a broad membranous retrolateral tibial apophysis and a broad chitinized retrolateral tibial tooth; paracymbium hook-shaped; cymbium with a longitudinal ridge bearing many bristles; protegulum short and broad; tegulum with a ventral apophysis; Embolus long and coiled.

Female (paratype). Total length 1.90. Habitus as in Figure 5B. Carapace 0.90 long, 0.78 wide. Clypeus height 3.5 times of diameter of ALE. AER 0.34, PER 0.36. AME 0.05, ALE 0.08, PME 0.07, PLE 0.07, AME-AME 0.01, AME-ALE 0.05, PME-PME 0.07, PME-PLE 0.05, AME-PME 0.09, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (15:9). Chelicera with four promarginal and three retromarginal teeth. Sternum 0.51 long, 0.56 wide. Labium 0.18 wide. Leg measurements: I 2.58 (0.73, 0.23, 0.61, 0.55, 0.46), II 2.43 (0.69, 0.23, 0.55, 0.52, 0.44), III 2.11 (0.60, 0.22, 0.44, 0.46, 0.39), IV 2.67 (0.79, 0.23, 0.66, 0.57, 0.42). Leg I/c 2.87. Fem. I/c 0.81. Tib. I/c 0.68. Met. I/c 0.61. Pat. I + tib. I/c 0.93. Met. I/tar. I 1.20. Met. IV/tar. IV 1.36. Chaetotaxy 1-1-1-1. Tm 1 0.37, Tm IV absent. Abdomen 1.30 long, 1.12 wide. Epigynum with a pair of ventral plate scapes; internal genitalia with a pair of curved copulatory ducts and a pair of rugged spermathecae (Fig. 7C-E).

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangbuk-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Diplocephaloides* Oi, 1960 흰배애접시거미속

***Diplocephaloides falcatus* n. sp.**
낫흰배애접시거미 (신칭) (Figs. 5C-D, 7F-K)

Material examined. Holotype: ♂, mixed forest (34° 42′41″N, 128°35′50″E, alt. 103 m), Nambu-myeon, Geoje-si, Gyeongsangnam-do, 11 May 2013, B. K. Seo. Paratypes: 1♀, same data as holotype; 1♂, mixed forest (36°31′49″N, 127°49′40″E, alt. 316 m), Sokrisan-myeon, Boeun-gun, Chungcheongbuk-do, 6 September 2007, S. Y. Kim; 1♀, mixed forest (34°42′41″N, 128°35′50″E, alt. 103 m), Sangju-myeon, Namhae-gun, Gyeongsangnam-do, 25 June 2005, B. K. Seo.

Etymology. The specific name is a Latin adjective "*falcatus*" (sickle-shaped), referring to the shape of retrolateral tibial apophysis of male palp.

Diagnosis. The new species resembles *D. saganus* (Bösenberg and Strand, 1906) in the chaetotaxy, the presence of Tm IV, the large membranous distal suprategular apophysis protruding beyond cymbium tip, and the epigynum structure, but different from the latter by the shapes of tibial apophyses and distal suprategular apophysis, and the embolus coiling (Fig. 7F-H, K).

Description. Male (holotype). Total length 1.90. Habitus as in Figure 5C. Carapace dirty brown, 0.74 long, 0.64 wide; cephalon elevated, with a pair of ocular sulci. Clypeus height 4.7 times of diameter of AME. AER 0.27, PER 0.29. AER recurved and PER procurved, slightly in dorsal view. AME 0.04, ALE 0.05, PME 0.04, PLE 0.04, AME-AME 0.02, AME-ALE 0.04, PME-PME 0.05, PME-PLE 0.09, AME-PME 0.10, and ALE-PLE 0.01. Median ocular quadrangle, height > posterior side > anterior side (23:20:15). Chelicera with three promarginal and three minute retromarginal teeth. Sternum 0.43 long, 0.43 wide. Labium 0.13 wide. Leg measurements: I 1.79 (0.51, 0.20, 0.39, 0.39, 0.30), II 1.70 (0.48, 0.18, 0.36, 0.38, 0.30), III 1.47 (0.40, 0.18, 0.29, 0.33, 0.27), IV 1.89 (0.56, 0.18, 0.43, 0.43, 0.29). Leg I/c 2.42. Fem. I/c 0.69. Tib. I/c 0.53. Met. I/c 0.53. Pat. I + tib. I/c 0.80. Met. I/tar. I 1.30. Met. IV/tar. IV 1.48. Chaetotaxy 2-2-1-1 (male paratype). Tm 1 0.50, Tm IV present. Abdomen oval and dark brown, and 0.88 long, 0.58 wide. Palp (Fig. 7F-H): tibia with three apophyses - prolateral one pointed, retrolateral one sickle-shaped, and dorsal one broad and curved; embolus semicircular; distal suprategular apophysis membranous, encloses radix and base of embolus, and protrudes beyond cymbium tip.

Female (paratype). Total length 1.52. Habitus as in Figure 5D. Carapace 0.70 long, 0.56 wide. Clypeus

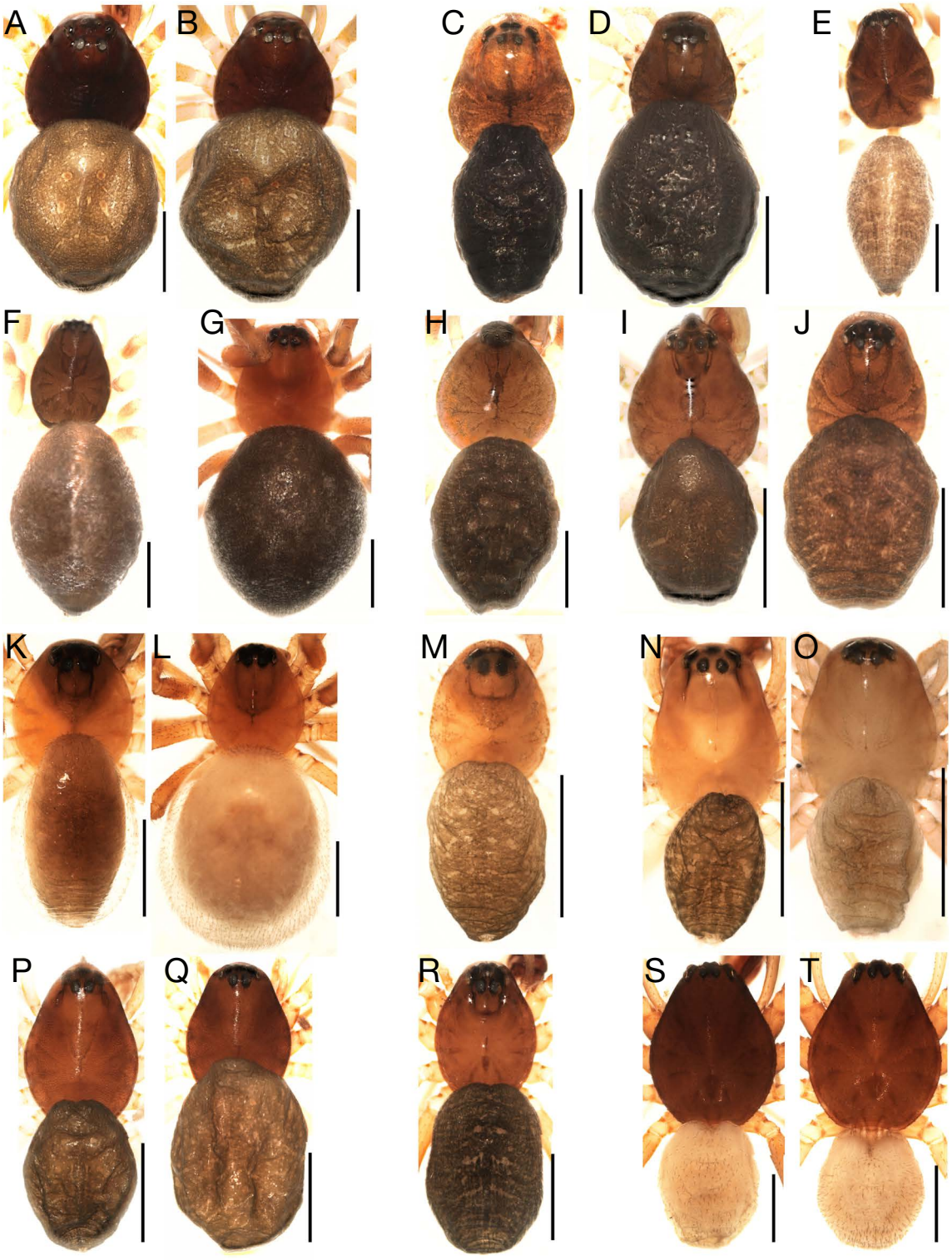


Fig. 5. Habitus of linyphiid species (I): A -*Cnephalocotes ferrugineus* n. sp., male; B - idem, female; C - *Diplocephaloides falcatus* n. sp., male; D - idem, female; E - *Hylyphantes nigritus* (Simon, 1881), male; F - idem, female; G - *Hypselistes australis* Saito and Ono, 2001, female; H - *Metopobactrus cornis* n. sp., male; I - *Pelecopsis bigibba* n. sp., male; J - idem, female; K - *Pelecopsis brunea* n. sp., male; L - idem, female; M - *Pelecopsis montana* n. sp., male; N - *Tapinocyba parva* n. sp., male; O - idem, female; P - *Tapinocyba subula* n. sp., male; Q - idem, female; R - *Walckenaeria supercilia* n. sp., male; S - *Diplostyla concolor* (Wider, 1834), male; T - idem, female. Scale bars: 0.5 mm.

height 3.3 times of diameter of AME. AER 0.23, PER 0.26. AME 0.04, ALE 0.05, PME 0.05, PLE 0.05, AME-AME 0.01, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.05, and ALE-PLE 0.01. Median ocular quadrangle, posterior side = height > anterior side (11:7). Chelicera with five promarginal and four minute retromarginal teeth. Sternum 0.42 long, 0.42 wide. Labium 0.13 wide. Leg measurements: I 1.73 (0.49, 0.20, 0.38, 0.36, 0.30), II 1.65 (0.48, 0.18, 0.35, 0.35, 0.29), III 1.46 (0.43, 0.18, 0.29, 0.30, 0.26), IV 1.92 (0.56, 0.20, 0.44, 0.43, 0.29). Leg I/c 2.47. Fem. I/c 0.70. Tib. I/c 0.54. Met. I/c 0.51. Pat. I + tib. I/c 0.83. Met. I/tar. I 1.20. Met. IV/tar. IV 1.48. Chaetotaxy 2-2-1-1. Tm 1 0.71, Tm IV present. Abdomen 1.08 long, 0.88 wide. Epigynum: ventral plate trianglular with median fissure anteriorly; internal genitalia with a pair of spermathecae (Fig. 7I-K).
Habitat. Mixed forest.
World Distribution. Korea (Chungcheongbuk-do, Gyeongsangnam-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Hylyphantes* Simon, 1884 숲애접시거미속

***Hylyphantes nigritus* (Simon, 1881)**
검정숲애접시거미 (신칭) (Figs. 5E-F, 8A-F)
Erigone nigrita Simon, 1881: 233.
Hylyphantes nigritus Tanasevitch, 1990: 102; Tu and Li, 2005: 62.

Material examined. 2♂♂, 1♀, grassland (36°21′37″N, 127°14′50″E, alt. 161 m), Banpo-myeon, Gongju-si, Chungcheongnam-do, 16 June 2006, C. W. Lee.
Diagnosis. This species is very similar to *H. graminicola* (Sundevall, 1830) in general appearance, but easily distinguished from the latter by the embolus with seven spirals and the absence of ventral apophysis of patella (Fig. 8A-B).
Description. Male. Total length 2.10. Habitus as in Figure 5E. Carapace dark brown, 0.90 long, 0.65 wide. Clypeus height 3.3 times of diameter of AME. AER 0.26, PER 0.29; AER recurved and PER procurved, slightly in dorsal view. AME 0.05, ALE 0.07, PME 0.05, PLE 0.07, AME-AME 0.03, AME-ALE 0.02, PME-PME 0.05, PME-PLE 0.04, AME-PME 0.06, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (12:10). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.52 long, 0.52 wide. Labium 0.17 wide. Leg measurements: I 3.59 (1.00, 0.23, 0.87, 0.90, 0.59), II 3.24 (0.88, 0.23, 0.77, 0.81, 0.55), III 2.48 (0.68, 0.22, 0.52, 0.62, 0.44), IV 3.29 (0.91, 0.23, 0.78, 0.85, 0.52). Leg I/c 3.99. Fem. I/c 1.11. Tib. I/c 0.97. Met. I/c 1.00. Pat. I + tib. I/c 1.22. Met. I/tar. I 1.53. Met. IV/tar. IV 1.63. Chaetotaxy 2-2-1-1. Tm 1 0.64, Tm IV present. Abdomen oval and dirty brown, with five pale transverse lines posteriorly, and 1.15 long, 0.68 wide. Palp (Fig. 8A-C): tibia with dorso-prolateral apophysis; embolus spiral; distal suprategular apophysis elongate; protegulum cotton-like.

Female. Total length 2.40. Habitus as in Figure 5F. Carapace 0.90 long, 0.65 wide. Clypeus height 3 times of diameter of AME. AER 0.27, PER 0.29. AME 0.05, ALE 0.05, PME 0.05, PLE 0.05, AME-AME 0.03, AME-ALE 0.03, PME-PME 0.05, PME-PLE 0.05, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > height = anterior side (12:10). Both margins of chelicera armed with three marginal teeth. Sternum 0.52 long, 0.51 wide. Labium 0.16 wide. Leg measurements: I 3.35 (0.91, 0.25, 0.82, 0.82, 0.55), II 3.08 (0.85, 0.25, 0.73, 0.73, 0.52), III 2.52 (0.72, 0.23, 0.55, 0.59, 0.43), IV 2.77 (0.78, 0.21, 0.66, 0.68, 0.44). Leg I/c 3.72. Fem. I/c 0.1.01Tib. I/c 0.90. Met. I/c 0.90. Pat. I + tib. I/c 1.19. Met. I/tar. I 1.49. Met. IV/tar. IV 1.55. Chaetotaxy 2-2-1-1. Tm 1 0.61, Tm IV present. Abdomen oval and brown without pale lines, and 1.50 long, 1.08 wide. Epigynum: atrium with a medial septum with a pair of copulatory openings; internal genitalia with a pair of convoluted copulatory ducts and a pair of spermathecae anteriorly (Fig. 8D-F).
Habitat. Grassland.
World Distribution. Caucasus, China, Europe, Korea (Chungcheongnam-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Hypselistes* Simon, 1894
혹머리접시거미속 (신칭)

***Hypselistes australis* Saito and Ono, 2001**
혹머리접시거미 (신칭) (Figs. 5G, 8G-I)
Hypselistes australis Saito and Ono, 2001: 3; Ono, Matsuda and Saito, 2009: 263.

Material examined. 1♀, grassland (36°48′30″N, 129° 05′19″E, alt. 1298 m), the summit of Mt. Ilweol, Jaesan-myeon, Bonghwa-gun, Gyeongsangbuk-do, 23 July 2010, J. C. Lim.
Diagnosis. This species is very similar to *H. semiflavus* (L. Koch, 1879) in the shape of dorsal plate of epigynum and internal genitalia, but can be distinguished from the latter by the shape of copulatory ducts (Fig. 8G-I).
Description. Female. Total length 2.18. Habitus as in Figure 5G. Carapace reddish brown, 0.93 long, 0.73 wide. Clypeus height 3.8 times of diameter of AME. AER 0.29, PER 0.33; AER recurved slightly and PER procurved in dorsal view. AME 0.05, ALE 0.07, PME 0.07, PLE 0.07, AME-AME 0.03, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.05, AME-PME 0.09, and

ALE-PLE 0.01. Median ocular quadrangle, height > posterior side > anterior side (15:13:9). Both margins of chelicera armed with four marginal teeth. Sternum 0.52 long, 0.52 wide. Labium 0.17 wide. Leg measurements: I 2.87 (0.85, 0.26, 0.69, 0.68, 0.39), II 2.71 (0.79, 0.23, 0.68, 0.65, 0.36), III 2.36 (0.68, 0.22, 0.53, 0.59, 0.34), IV 2.91 (0.86, 0.22, 0.73, 0.74, 0.36). Leg I/c 3.09. Fem. I/c 0.91. Tib. I/c 0.74. Met. I/c 0.73. Pat. I + tib. I/c 1.02. Met. I/tar. I 1.74. Met. IV/tar. IV 2.06. Chaetotaxy 1-1-1-1. Tm 1 0.94, Tm IV present. Abdomen oval and dark brown, and 1.50 long, 1.20 wide. Epigynum: dorsal plate reddish brown and convex, with a broad rounded indentation at posterior margin; internal genitalia with a pair of copulatory opening at posterior margin, a pair of broad and tortuous copulatory ducts, and a pair of spermathecae (Fig. 8G-I).

Habitat. Grassland

World Distribution. Japan, Korea (Gyeongsangbuk-do), Russia.

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Metopobactrus* Simon, 1884
뿔접시거미속 (신칭)

***Metopobactrus cornis* n. sp.**
뿔접시거미 (신칭) (Figs. 5H, 8J-M)

Material examined. Holotype: ♂, mixed forest (35°22′07″N, 127°47′27″E, alt. 604 m), Samjang-myeon, Sancheong-gun, Gyeongsangnam-do, 29 June 2010, J. C. Lim.

Etymology. The specific name is a Latin adjective "*cornis*" (horned), referring to the shape of the raised cephalon.

Diagnosis. The new species resembles *M. ascitus* (Kulczyński, 1894) in the uplifted head, the embolic division and embolus, the bristles on retrolateral tibia, and developed suprategular apophysis, but different from the latter by the shapes of embolic division and suprategular apophysis (Fig. 8L-M).

Description. Male (holotype). Total length 2.00. Habitus as in Figure 5H. Carapace reddish brown, 0.94 long, 0.80 wide; head uplift raised twice, with PME on both sides of second uplifted head and without sulcus (Figs. 5H, 8J-K). Clypeus height 6.3 times of diameter of AME. AER 0.23, PER 0.26; AER recurved slightly and PER procurved in dorsal view. AME 0.05, ALE 0.07, PME 0.05, PLE 0.07, AME-AME 0.02, AME-ALE 0.01, PME-PME 0.09, PME-PLE 0.12, AME-PME 0.14, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (19:11:10). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.57 long, 0.61 wide. Labium 0.22 wide. Leg measurements: I 2.82 (0.78, 0.26, 0.73, 0.66, 0.39), II 2.75 (0.74, 0.26, 0.68, 0.68, 0.39), III 2.44 (0.66, 0.22, 0.59, 0.61, 0.36), IV 3.22 (0.90, 0.26, 0.86, 0.81, 0.39). Leg I/c 3.00. Fem. I/c 0.83. Tib. I/c 0.78. Met. I/c 0.70. Pat. I + tib. I/c 1.05. Met. I/tar. I 1.69. Met. IV/tar. IV 2.08. Chaetotaxy 1-1-1-1. Tm 1 0.80, Tm IV present. Abdomen oval and dark gray, with two pairs of pale dots and 1.20 long, 0.86 wide. Palp (Fig. 8L-M): tibia with a long pointed dorsal apophysis and a short pointed retrolateral apophysis; embolic division curled with thin curled embolus; tegulum broad and elongate; suprategular apophysis highly developed, broad and curved, with denticles at distal part.

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangnam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Pelecopsis* Simon, 1864 도끼접시거미속 (신칭)

***Pelecopsis bigibba* n. sp.**
두혹도끼접시거미 (신칭) (Figs. 5I-J, 9A-H)

Material examined. Holotype: ♂, mixed forest (35°26′27″N, 126°52′54″E, alt. 189 m), Bukha-myeon, Jangseong-gun, Jeollanam-do, 13 May 2006, B. K. Seo. Paratypes: 1♂, 1♀, same data as holotype.

Etymology. The specific name is a Latin adjective "*bigibba*" (two-humped), referring to the shape of the raised head.

Diagnosis. The new species is similar to *P. bicornuta* Hillyard, 1980 in the male cephalon and palp, and female internal genitalia, but easily distinguished from different from the latter by the shape of head elevation, tibial apophyses and embolic division, and vesicles and spermathecae of internal genitalia (Fig. 9A-E, H).

Description. Male (holotype). Total length 1.29. Habitus as in Figure 5I. Carapace brown, 0.77 long, 0.59 wide; cephalon with two dorsal elevation, anterior one small with AME, posterior one large and bifurcate with PME; a pair of sulci present behind PLE. Clypeus height 5 times of diameter of AME. AER 0.22, PER 0.23; AER recurved strongly and PER procurved slightly in dorsal view. AME 0.04, ALE 0.04, PME 0.04, PLE 0.04, AME-AME 0.01, AME-ALE 0.05, PME-PME 0.05, PME-PLE 0.10, AME-PME 0.13, and ALE-PLE 0.01. Median ocular quadrangle, height > posterior side > anterior side (16:10:7). Chelicera with five promarginal and three retromarginal teeth. Sternum 0.39 long, 0.40 wide. Labium 0.12 wide. Leg measurements: I 1.66 (0.46, 0.20, 0.40, 0.34, 0.26), II 1.57 (0.44, 0.18, 0.36, 0.33, 0.26), III 1.42 (0.39, 0.18, 0.30, 0.30, 0.25), IV 1.77 (0.51, 0.18, 0.44, 0.38, 0.26). Leg I/c 2.16. Fem. I/c 0.60. Tib. I/c 0.52. Met. I/c 0.44. Pat. I + tib. I/c 0.78. Met. I/

tar. I 1.31. Met. IV/tar. IV 1.46. Chaetotaxy 1-1-1-1 (very small spines). Tm 1 0.69, Tm IV absent. Abdomen oval and dark brown, 0.68 long, 0.55 wide. Palp (Fig. 9C-E): tibia with three dorsal apophyses; tegular apophysis short and pointed; suprategular apophysis curved ventrally, narrow and membranous; embolus and terminal apophysis curled.

Female (paratype). Total length 1.34. Habitus as in Figure 5J. Carapace 0.65 long, 0.53 wide. Clypeus height 3.3 times of diameter of AME. AER 0.22, PER 0.23. AME 0.04, ALE 0.05, PME 0.05, PLE 0.04, AME-AME 0.01, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.05, and ALE-PLE 0.01. Median ocular quadrangle, height > posterior side > anterior side (11:10:7). Chelicera with five promarginal and three retromarginal teeth. Sternum 0.38 long, 0.42 wide. Labium 0.13 wide. Leg measurements: I 1.65 (0.49, 0.20, 0.38, 0.33, 0.25), II 1.52 (0.46, 0.18, 0.33, 0.30, 0.25), III 1.37 (0.39, 0.17, 0.27, 0.29, 0.25), IV 1.77 (0.55, 0.17, 0.43, 0.36, 0.26). Leg I/c 2.54. Fem. I/c 0.75. Tib. I/c 0.58. Met. I/c 0.51. Pat. I + tib. I/c 0.89. Met. I/tar. I 1.32. Met. IV/tar. IV 1.38. Chaetotaxy 1-1-1-1. Tm 1 0.68, Tm IV absent. Abdomen 0.88 long, 0.72 wide. Epigynum: atrium broad with a pair of copulatory openings at posterior margin; internal genitalia with a pair of vesicles and a pair of spermathecae (Fig. 9F-H).

Habitat. Mixed forest.

World Distribution. Korea (Jeollanam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Pelecopsis brunea* n. sp.**

갈색도끼접시거미 (신칭) (Figs. 5K-L, 9I-O)

Material examined. Holotype: ♂, mixed forest in small island (34°40′15″N, 125°21′57″E, alt. 112 m), Heuksan-myeon, Sinan-gun, Jeollanam-do, 25 July 2007, S. Y. Kim. Paratypes: 1♀, same data as holotype; 1♂, mixed forest in valley (35°45′53″N, 128°04′22″E, alt. 526 m), Gaya-myeon, Hapcheon-gun, Gyeongsangnam-do, 12 August 2007, B. K. Seo.

Etymology. The specific name is a Latin adjective "*brunea*" (brown), referring to the carapace color of the type specimens.

Diagnosis. The new species resembles *P. parallela* (Wider, 1834) in the male carapace and the embolus shape of male palp, but different from the latter by the shapes of tibial apophyses, terminal apophysis, and copulatory ducts of internal genitalia (Fig. 9I-L, O).

Description. Male (holotype). Total length 1.54. Habitus as in Figure 5K. Carapace brown with a pair of sulci behind PLE, 0.72 long, 0.64 wide; cephalon slightly elevated. Clypeus height 2.5 times of diameter of AME. AER 0.29, PER 0.30. AER recurved and PER procurved strongly in dorsal view. AME 0.05, ALE 0.07, PME 0.07, PLE 0.07, AME-AME 0.03, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (14:12:9). Chelicera with five promarginal and six retromarginal teeth. Sternum 0.47 long, 0.47 wide. Labium 0.16 wide. Leg measurements: I 2.20 (0.61, 0.23, 0.55, 0.46, 0.35), II 2.01 (0.55, 0.22, 0.47, 0.43, 0.34), III 1.65 (0.44, 0.20, 0.35, 0.36, 0.30), IV 2.26 (0.65, 0.21, 0.57, 0.49, 0.34). Leg I/c 3.06. Fem. I/c 0.85. Tib. I/c 0.76. Met. I/c 0.64. Pat. I + tib. I/c 1.08. Met. I/tar. I 1.31. Met. IV/tar. IV 1.44. Chaetotaxy 1-1-1-1 (male paratype). Tm 1 0.49, Tm IV absent. Abdomen oval and dirty brown, and 1.04 long, 0.70 wide. Palp (Fig. I-L): tibia with a dorsal apophysis and a blunt retrolateral apophysis; tegular apophysis broad and blunt; embolus curved; terminal apophysis spiral with U-shaped chitinized tip.

Female (paratype). Total length 2.04 Habitus as in Figure 5L. Carapace 0.76 long, 0.66 wide. Clypeus height 2 times of diameter of AME. AER 0.27, PER 0.30. AME 0.05, ALE 0.08, PME 0.07, PLE 0.08, AME-AME 0.03, AME-ALE 0.03, PME-PME 0.05, PME-PLE 0.03, AME-PME 0.07, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > height > anterior side (14:13:9). Chelicera with seven promarginal and four retromarginal teeth. Sternum 0.46 long, 0.47 wide. Labium 0.20 wide. Leg measurements: I 2.16 (0.62, 0.25, 0.51, 0.43, 0.35), II 1.95 (0.56, 0.23, 0.43, 0.39, 0.34), III 1.72 (0.47, 0.23, 0.35, 0.38, 0.29), IV 2.36 (0.68, 0.23, 0.62, 0.49, 0.34). Leg I/c 2.84. Fem. I/c 0.82. Tib. I/c 0.67. Met. I/c 0.57. Pat. I + tib. I/c 1.23. Met. I/tar. I 1.23. Met. IV/tar. IV 1.44. Chaetotaxy 0-0-0-1. Tm 1 0.52, Tm IV absent. Abdomen 1.40 long, 0.30 wide. Epigynum: atrium broad with a pair of logitudinal plates; internal genitalia with a pair of copulatory ducts under longitudinal plates and a pair of copulatory openings at posterior margin (Fig. 9M-O).

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangnam-do, Jeollanam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Pelecopsis montana* n. sp.**

산도끼접시거미 (신칭) (Figs. 5M, 10A-F)

Material examined. Holotype: ♂, mixed forest beside lake (35°25′43″N, 126°50′34″E, alt. 130 m), Bukha-myeon, Jangseong-gun, Jeollanam-do, 12 May 2006, B. K. Seo. Paratypes: 1♂, same data as holotype; 1♂, mixed forest in Island (34°48′28″N, 128°43′04″E, alt. 157 m), Irun-myeon, Geoje-si, Gyeongsangnam-do, 12 July 2013, B. K. Seo.

Etymology. The specific name is a Latin adjective "*montana*" (mountainous), referring to the habitat of the type specimens.

Diagnosis. The new species resembles *P. parallela* (Wider, 1834) in the male carapace, the embolus shape and dorsal apophysis of male palp, but easily distinguished from the latter by the shape of suprategular apophysis and terminal apophysis (Fig. 10C-E).

Description. Male (holotype). Total length 1.11. Habitus as in Figure 5M. Carapace height brown, 0.53 long, 0.44 wide; cephalon elevated, with a pair of ocular sulci under PMA (Fig. 10A-B). Clypeus height 3.2 times of diameter of AME. AER 0.17, PER 0.20. AER recurved and PER procurved in dorsal view. AME 0.03, ALE 0.05, PME 0.04, PLE 0.05, AME-AME contiguous, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.08, AME-PME 0.10, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (12:9:5). Chelicera with six promarginal and three minute retromarginal teeth. Sternum 0.35 long, 0.33 wide. Labium 0.10 wide. Leg measurements: I lost, II 1.37 (0.39, 0.16, 0.30, 0.26, 0.26), III 1.17 (0.31, 0.13, 0.25, 0.23, 0.25), IV 1.50 (0.43, 0.14, 0.38, 0.29, 0.26). Chaetotaxy 1-1-1-1 (male paratype). Tm 1 0.33 (male paratype), Tm IV absent. Abdomen oval and dirty brown, and 0.66 long, 0.43 wide. Palp (Fig. 10C-F): tibia with large pointed dorsal apophysis; embolus curled; suprategular apophysis membranous and twisted; terminal apophysis membranous, long and narrow.

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangnam-do, Jeollanam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Tapinocyba* Simon, 1884
산길접시거미속 (신칭)

***Tapinocyba parva* n. sp.**
꼬마산길접시거미 (신칭) (Figs. 5N-O, 10G-N)

Material examined. Holotype: ♂, broad-leaf bamboo (*Sasa borealis*) patch beside creek (35°26′49″N, 126°50′50″E, alt. 132 m), Bukha-myeon, Jangseong-gun, Jeollanam-do, 12 May 2006, B. K. Seo. Paratypes: 16♂♂, 1♀, same data as holotype; 1♂, 1♀, mixed forest (35°27′56″N, 126°52′37″E, alt. 376 m), Bokheung-myeon, Sunchang-gun, Jeollabuk-do, 19 May 2007, B. K. Seo.

Etymology. The specific name is a Latin adjective "*parva*" (small), referring to the body size of the type specimens.

Diagnosis. The new species resembles *T. silvicultrix* Saito, 1980 in the prolateral tibial apophysis of male palp, but different from the latter by the dorsal tibial apophysis, the embolic division of male palp, and female genitalia. The new species is also similar to *T. corsica* (Simon, 1884) in the genitalia, but easily distinguished from the latter by the posterior spermathecae of female and the embolic division of male palp (Fig. 10G-K, N).

Description. Male (holotype). Total length 1.18. Habitus as in Figure 5N. Carapace light brown, 0.70 long, 0.52 wide; cephalon with a pair of sulci behind PLE. Clypeus height 3 times of diameter of AME. AER 0.22, PER 0.23. AER recurved and PER slightly procurved in dorsal view. AME 0.04, ALE 0.05, PME 0.04, PLE 0.04, AME-AME contiguous, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.05, AME-PME 0.07, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (12:9:6). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.40 long, 0.34 wide. Labium 0.10 wide. Leg measurements: I 1.46 (0.44, 0.17, 0.34, 0.26, 0.25), II 1.31 (0.38, 0.16, 0.29, 0.23, 0.25), III 1.07 (0.30, 0.14, 0.21, 0.21, 0.21), IV 1.41 (0.42, 0.16, 0.35, 0.26, 0.22). Leg I/c 2.09. Fem. I/c 0.63. Tib. I/c 0.49. Met. I/c 0.37. Pat. I+tib. I/c 0.73. Met. I/tar. I 1.04. Met. IV/tar. IV 1.18. Chaetotaxy 1-1-1-1. Tm 1 0.50, Tm IV absent. Abdomen oval and dark brown, and 0.55 long, 0.40 wide. Palp (Fig. 10G-K): tibia with three apophyses - prolateral one long and slender, with hand-like tip, and retrolateral one short, pointed curved, and dorsal one round, broad; embolus short and coiled; distal suprategular apophysis membranous, chitinized, and broad; terminal apophysis at base of embolus, small and pointed.

Female (paratype). Total length 1.05. Habitus as in Figure 5O. Carapace 0.65 long, 0.48 wide. Clypeus height 2 times of diameter of AME. AER 0.17, PER 0.21. AME 0.03, ALE 0.05, PME 0.04, PLE 0.04, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (3:2). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.35 long, 0.34 wide. Labium 0.13 wide. Leg measurements: I 1.31 (0.39, 0.18, 0.27, 0.21, 0.26), II 1.22 (0.34, 0.17, 0.26, 0.20, 0.25), III 1.05 (0.30, 0.14, 0.21, 0.20, 0.20), IV 1.34 (0.42, 0.16, 0.33, 0.22, 0.21). Leg I/c 2.02. Fem. I/c 0.60. Tib. I/c 0.42. Met. I/c 0.32. Pat. I+tib. I/c 0.69. Met. I/tar. I 0.81. Met. IV/tar. IV 1.05. Chaetotaxy 1-1-1-1. Tm 1 0.5, Tm IV absent. Abdomen 0.59 long, 0.40 wide. Epigynum: atrium broad with chevron-like anterior margin; internal genitalia with copulatory openings, copulatory ducts, and spermathecae anteriorly (Fig. 10L-N).

Habitat. Broad-leaf bamboo (*Sasa borealis*) patch.

World Distribution. Korea (Jeollanam-do, Jeollabuk-do).

Deposition. NIBR.
Identifier. Bo Keun Seo.

***Tapinocyba subula* n. sp.**
송곳산길접시거미 (신칭) (Figs. 5P-Q, 11A-I)

Material examined. Holotype: ♂, mixed forest (35°30′ 12″N, 126°54′41″E, alt. 127 m), Sang-dong, Jeongeup-si, Jeollabuk-do, 14 May 2006, B. K. Seo. Paratypes: 21♂♂, 1♀, same data as holotype.
Etymology. The specific name is a Latin noun "*subula*" (awl), referring to the shape of pointed projection of male clypeus.
Diagnosis. The new species resembles *T. praecox* (Pickard-Cambridge, 1873) and *T. ventosa* Millidge, 1979 in the radix, embolus, and tegular apophysis of male palp, but different from the latter by the detailed shape of embolus tip and tegular apophysis, the position of copulatory opening and fertilization ducts (Fig. 11C-E, G-I).
Description. Male (holotype). Total length 1.56. Habitus as in Figure 5P. Carapace reddish brown, 0.90 long, 0.60 wide; cephalon elevated, with a pair of sulci behind PLE and a pointed projection at clypeus (Fig. 11A-B). Clypeus height 3.3 times of diameter of AME. AER 0.23, PER 0.25. AER recurved slightly and PER procurved in dorsal view. AME 0.04, ALE 0.05, PME 0.05, PLE 0.04, AME-AME 0.01, AME-ALE 0.03, PME-PME 0.03, PME-PLE 0.08, AME-PME 0.09, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (13:10:7). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.44 long, 0.35 wide. Labium 0.13 wide. Leg measurements: I 2.00 (0.56, 0.21, 0.46, 0.39, 0.38), II 1.82 (0.52, 0.20, 0.40, 0.35, 0.35), III 1.54 (0.44, 0.17, 0.33, 0.31, 0.29), IV 1.98 (0.59, 0.18, 0.51, 0.39, 0.31). Leg I/c 2.22. Fem. I/c 0.62. Tib. I/c 0.51. Met. I/c 0.43. Pat. I + tib. I/c 0.74. Met. I/tar. I 1.03. Met. IV/tar. IV 1.26. Chaetotaxy 1-1-1-1. Tm 1 0.37, Tm IV absent. Abdomen oval and dark brown, and 0.84 long, 0.62 wide. Palp (Fig. 11C-F): tibia with a broad angular dorsal apophysis and a small angular retrolateral apophysis; tegulum well developed with a membraous apophysis; embolus short and curved; distal suprategular apophysis with small pointed projection.

Female (paratype). Total length 1.58. Habitus as in Figure 5Q. Carapace 0.76 long, 0.56 wide. Clypeus height 4 times of diameter of AME. AER 0.22, PER 0.23. AME 0.03, ALE 0.07, PME 0.05, PLE 0.04, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, AME-PME 0.07, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (12:10:6). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.47 long, 0.44 wide. Labium 0.16 wide. Leg measurements: I 1.93 (0.57, 0.20, 0.46, 0.36, 0.34), II 1.77 (0.52, 0.20, 0.39, 0.33, 0.33), III 1.51 (0.44, 0.18, 0.31, 0.29, 0.29), IV 1.98 (0.60, 0.20, 0.49, 0.36, 0.33). Leg I/c 2.54. Fem. I/c 0.75. Tib. I/c 0.61. Met. I/c 0.47. Pat. I + tib. I/c 0.87. Met. I/tar. I 1.06. Met. IV/tar. IV 1.09. Chaetotaxy 1-1-1-1. Tm 1 0.43, Tm IV absent. Abdomen dirty brown, 1.08 long, 0.74 wide. Epigynum: atrium broad with a copulatory opening anteriorly; internal genitalia with broad, short copulatory ducts, spermathecae, and fertilization ducts (Fig. 11G-I).
Habitat. Mixed forest.
World Distribution. Korea (Jeollabuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Walckenaeria* Blackwall, 1833
혹애접시거미속

***Walckenaeria supercilia* n. sp.**
눈썹혹애접시거미 (신칭) (Figs. 5R, 11J-N)

Material examined. Holotype: ♂, mixed forest (36°49′ 38″N, 129°06′00″E, alt. 713 m), Subi-myeon, Yeongyang-gun, Gyeongsangbuk-do, 24 May 2015, B. K. Seo.
Etymology. The specific name is a Latin noun "*supercilia*" (eyebrow), referring to a pair of bristle tufts above AER.
Diagnosis. The new species is very similar to *W. chikunii* Saito and Ono, 2001 in the general appearance and the structure of male palp, but different from the latter by the shapes of retrolateral tibial apophysis, distal suprategular apophysis, head elevation, the interval of AER, and the curvature of AER in frontal view (Fig. 11J-N).
Description. Male (holotype). Total length 1.72. Habitus as in Figure 5R. Carapace reddish brown, 0.84 long, 0.60 wide; cephalon elevated with a pair of bristle tufts above AER and a pair of ocular sulci behind PLE (Fig. 11J-K). Clypeus height 2.3 times of diameter of AME. AER 0.25, PER 0.27. AER recurved and PER procurved in dorsal view. AME 0.05, ALE 0.08, PME 0.07, PLE 0.07, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.04, AME-PME 0.09, and ALE-PLE contiguous. Median ocular quadrangle, height > posterior side > anterior side (16:13:9). Chelicera with four teeth on each margin. Sternum 0.57 long, 0.48 wide. Labium 0.16 wide. Leg measurements: I 2.19 (0.64, 0.23, 0.53, 0.43, 0.36), II 2.09 (0.61, 0.23, 0.51, 0.39, 0.35), III 1.82 (0.51, 0.21, 0.39, 0.38, 0.33), IV 2.40 (0.65, 0.23, 0.64, 0.52, 0.36). Leg I/c 2.61. Fem. I/c 0.76. Tib. I/c 0.63. Met. I/c 0.51. Pat. I + tib. I/c 0.90. Met. I/tar. I 1.19. Met. IV/tar. IV 1.44. Chaetotaxy 2-2-1-1. Tm 1 0.36, Tm IV present. Abdomen oval and dark brown, and 0.98 long, 0.70 wide. Palp (Fig. 11L-N): tibia with three apophyses - prolateral one long and curved, retrolateral one membranous and chitinized, and ventral one blunt-

ed; embolus circular.
Habitat. Mixed forest.
World Distribution. Korea (Gyeongsangbuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Diplostyla* Emerton, 1882
북방애접시거미속 (신칭)

***Diplostyla concolor* (Wider, 1834)**
북방애접시거미 (신칭) (Figs. 5S-T, 12A-E)
Linyphia concolor Wider, 1834: 261.
Diplostyla concolor Emerton, 1882: 66; Merrett, 1963: 381.

Material examined. 7♂♂, 5우우 larch *(Larix olgensis var. koreana)* afforestation area (37°42′39″N, 128°36′40″E, alt. 641 m), Daegwallyeong-myeon, Pyeongchang-gun, Gangwon-do, 24 September 2009, S. Y. Kim.
Diagnosis. This species resembles *Bathyphantes* in the basic conformation of epigynum and male palp, but easily distinguished from the latter by the detailed shape of male palp and the long thin scape of female epigynum (Fig. 12A-D).
Description. Male. Total length 2.20. Habitus as in Figure 5S. Carapace reddish brown, 1.28 long, 0.98 wide. Clypeus height 5 times of diameter of AME. AER 0.39, PER 0.49. AER recurved slightly and PER straight in dorsal view. AME 0.05, ALE 0.08, PME 0.07, PLE 0.08, AME-AME 0.01, AME-ALE 0.07, PME-PME 0.05, PME-PLE 0.08, AME-PME 0.04, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > height > anterior side (14:12:9). Chelicera with one large retromarginal and three promarginal teeth. Sternum 0.69 long, 0.69 wide. Labium 0.21 wide. Leg measurements: I 6.36 (1.80, 0.33, 1.85, 1.53, 0.85), II 5.61 (1.60, 0.30, 1.60, 1.33, 0.78), III 4.21 (1.28, 0.25, 1.10, 0.98, 0.60), IV 5.55 (1.65, 0.30, 1.60, 1.30, 0.70). Leg I/c 4.97. Fem. I/c 1.41. Tib. I/c 1.45. Met. I/c 1.20. Pat. I + tib. I/c 1.70. Met. I/tar. I 1.80. Met. IV/tar. IV 1.86. Chaetotaxy 2-2-2-2. Tm 1 0.28, Tm IV absent. Abdomen oval and yellow, and 1.00 long, 0.80 wide. Palp (Fig. 12A-B): tegulum extended anteriorly; suprategula apophysis thin and long; radix short and narrow; embolus flattened with curved tip; lamella long narrow with expanded base.

Female. Total length 2.03. Habitus as in Figure 5T. Carapace 1.15 long, 0.88 wide. Clypeus height 6 times of diameter of AME. AER 0.35, PER 0.39. AME 0.04, ALE 0.08, PME 0.06, PLE 0.07, AME-AME 0.01, AME-ALE 0.05, PME-PME 0.04, PME-PLE 0.08, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (12:7). Chelicera with three promarginal and four retromarginal teeth. Sternum 0.65 long, 0.66 wide. Labium 0.18 wide. Leg measurements: I 5.61 (1.60, 0.30, 1.60, 1.28, 0.83), II 5.11 (1.48, 0.30, 1.43, 1.15, 0.75), III 3.96 (1.20, 0.28, 1.00, 0.90, 0.58), IV 5.13 (1.55, 0.30, 1.43, 1.15, 0.70). Leg I/c 4.88. Fem. I/c 1.39. Tib. I/c 1.39. Met. I/c 1.11. Pat. I + tib. I/c 1.65. Met. I/tar. I 1.54. Met. IV/tar. IV 1.64. Chaetotaxy 2-2-2-2. Tm 1 0.27, Tm IV absent. Abdomen 1.13 long, 0.39 wide. Epigynum: scape very long and thin; internal genitalia with short curved copulatory ducts, spermathecae, and fertilization ducts (Fig. 12C-E).
Habitat. Larch *(Larix olgensis var. koreana)* afforestation area.
World Distribution. Holarctic region (Korea; Gangwon-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Agyneta* Hull, 1911 꼬마접시거미속

***Agyneta furcula* n. sp.**
갈래꼬마접시거미 (신칭) (Figs. 6A-B, 12F-M)

Material examined. Holotype: ♂, mixed forest (37°41′24″N, 128°30′08″E, alt. 1030 m), Jinbu-myeon, Pyeongchang-gun, Gangwon-do, 20 July 2010, J. C. Lim. Paratypes: 2♂♂, 1우, same data as holotype.
Etymology. The specific name is a Latin noun "*furcula*" (small two-pronged fork), referring to the shape of lamella characteristica of male palp.
Diagnosis. The new species resembles *A. subtilis* (Pickard-Cambridge, 1863) in the suprategular apophysis, paracymbium, lamella characteristica of male palp, and female epigynum, but different from the latter by the detail shapes of paracymbium and lamella characteristica (Fig. 12F, J).
Description. Male (holotype). Total length 1.93. Habitus as in Figure 6A. Carapace dirty brown, 0.88 long, 0.70 wide. Clypeus height 3.3 times of diameter of AME. AER 0.27, PER 0.30. AER recurved slightly and PER straight in dorsal view. AME 0.05, ALE 0.09, PME 0.08, PLE 0.07, AME-AME 0.03, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.03, AME-PME 0.08, and ALE-PLE 0.01. Median ocular quadrangle, height = posterior side > anterior side (13:9). Chelicera with two promarginal and a minute retromarginal teeth. Sternum 0.55 long, 0.47 wide. Labium 0.16 wide. Leg measurements: I 3.16 (0.83, 0.25, 0.80, 0.78, 0.50), II 2.97 (0.78, 0.25, 0.73, 0.73, 0.48), III and IV lost. Leg I/c 3.59. Fem. I/c 0.94. Tib. I/c 0.91. Met. I/c 0.89. Pat. I + tib. I/c 1.19. Met. I/tar. I 1.56. Tm 1 0.61. Abdomen oval and dark brown, and 1.05 long, 0.70 wide. Palp (Fig. 12F-J): paracymbium with anterior pocket; suprategular apophysis clawlike; embolus curved; lamella

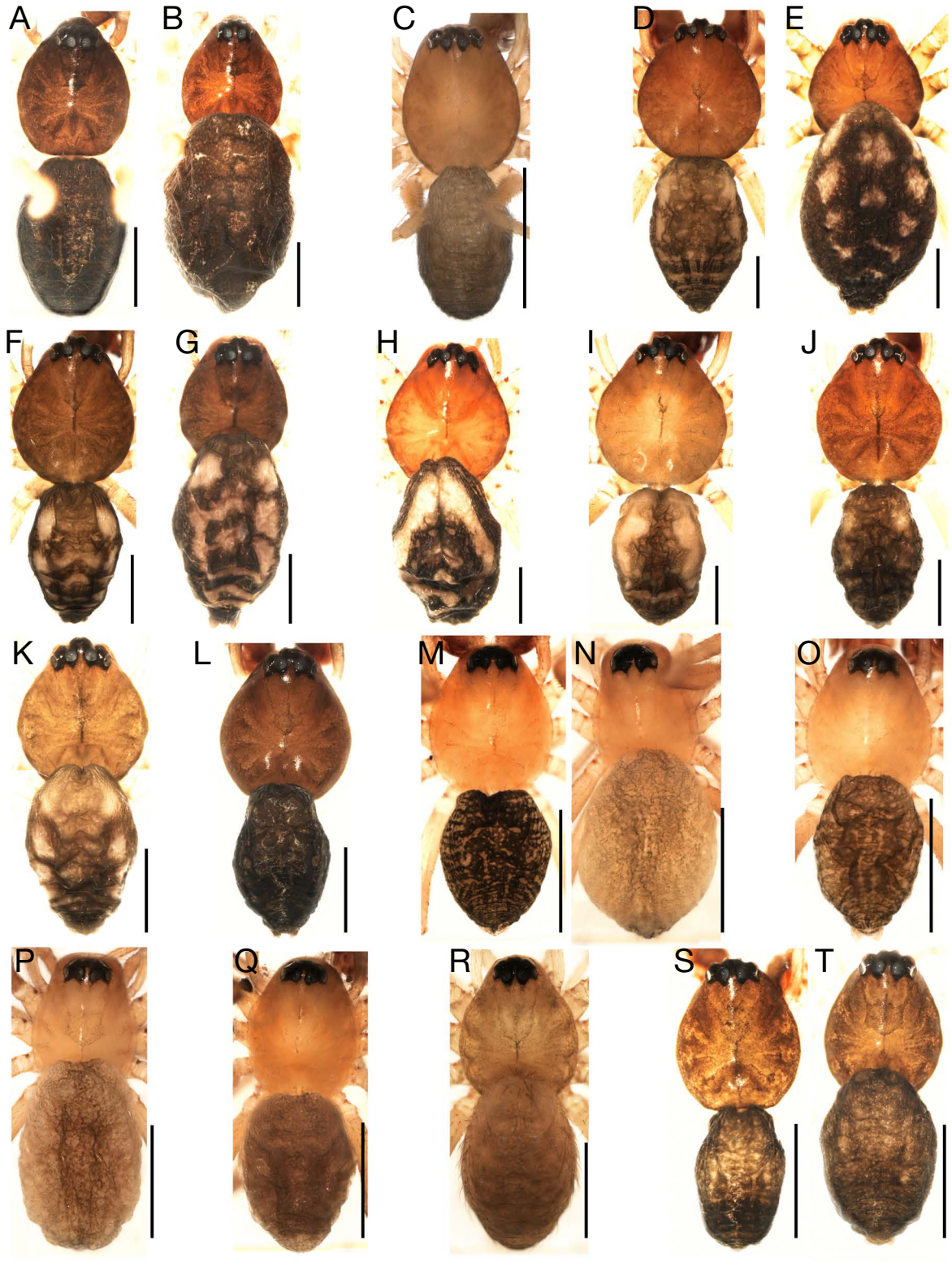


Fig. 6. Habitus of linyphiid species (II): A - *Agyneta furcula* n. sp., male; B - idem, female; C - *Agyneta insulana* Tanasevitch, 2000, male; D - *Arcuphantes chiakensis* n. sp., male; E - idem, female; F - *Arcuphantes chilboensis* n. sp., male; G - idem, female; H - *Arcuphantes longiconvolutus* n. sp., female; I - *Arcuphantes namweonensis* n. sp., male; J - *Arcuphantes pennatoides* n. sp., male; K - idem, female; L - *Arcuphantes pyeongchangensis* n. sp., male; M - *Collis flavus* n. sp., male; N - idem, female; O - *Collis pusillus* n. sp., male; P - idem, female; Q - *Collis silvaticus* n. sp., male; R - *Doenitzius minutus* n. sp., female; S - *Nippononeta bituberculata* n. sp., male; T - idem, female. Scale bars: 0.5 mm.

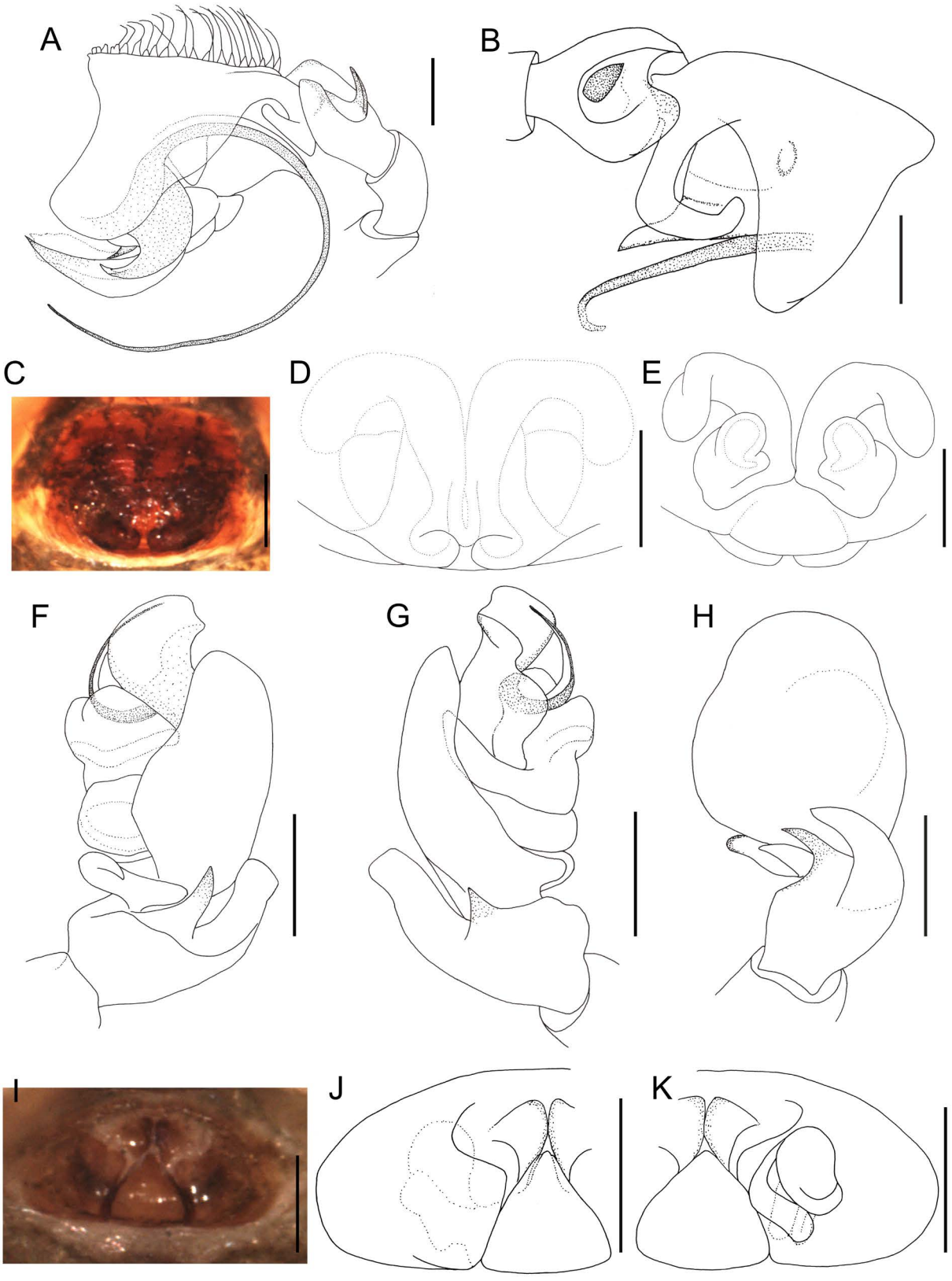


Fig. 7. *Cnephalocotes ferrugineus* n. sp. (A-E) and *Diplocephaloides falcatus* n. sp. (F-K): A, F - male left palp, retrolateral view; B, G - idem, prolateral view; H - idem, dorsal view; C-D, I-J - epigynum; E, K - internal genitalia. Scale bars: 0.1 mm

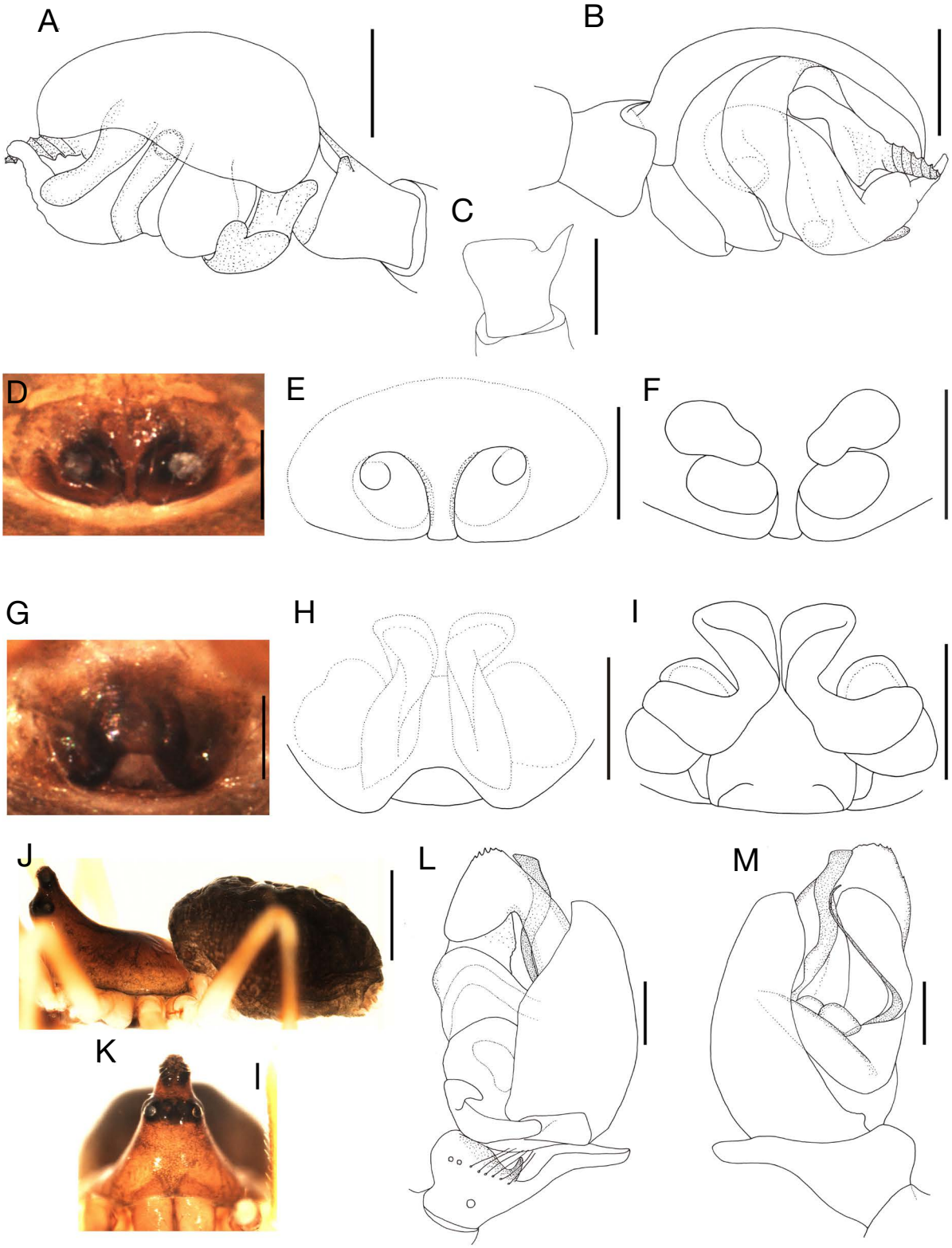


Fig. 8. *Hylyphantes nigritus* (Simon, 1881) A-F), *Hypselistes australis* Saito and Ono, 2001 (G-I), and *Metopobactrus cornis* n. sp. (J-M): A, L - male left palp, retrolateral view; B, M - idem, prolateral view; C - idem, tibial apophysis, dorsal view; D-E, G-H - epigynum; F, I - internal genitalia; J - male head, lateral view; K - idem, frontal view. Scale bars: 0.5 mm (J), 0.1 mm (rest).

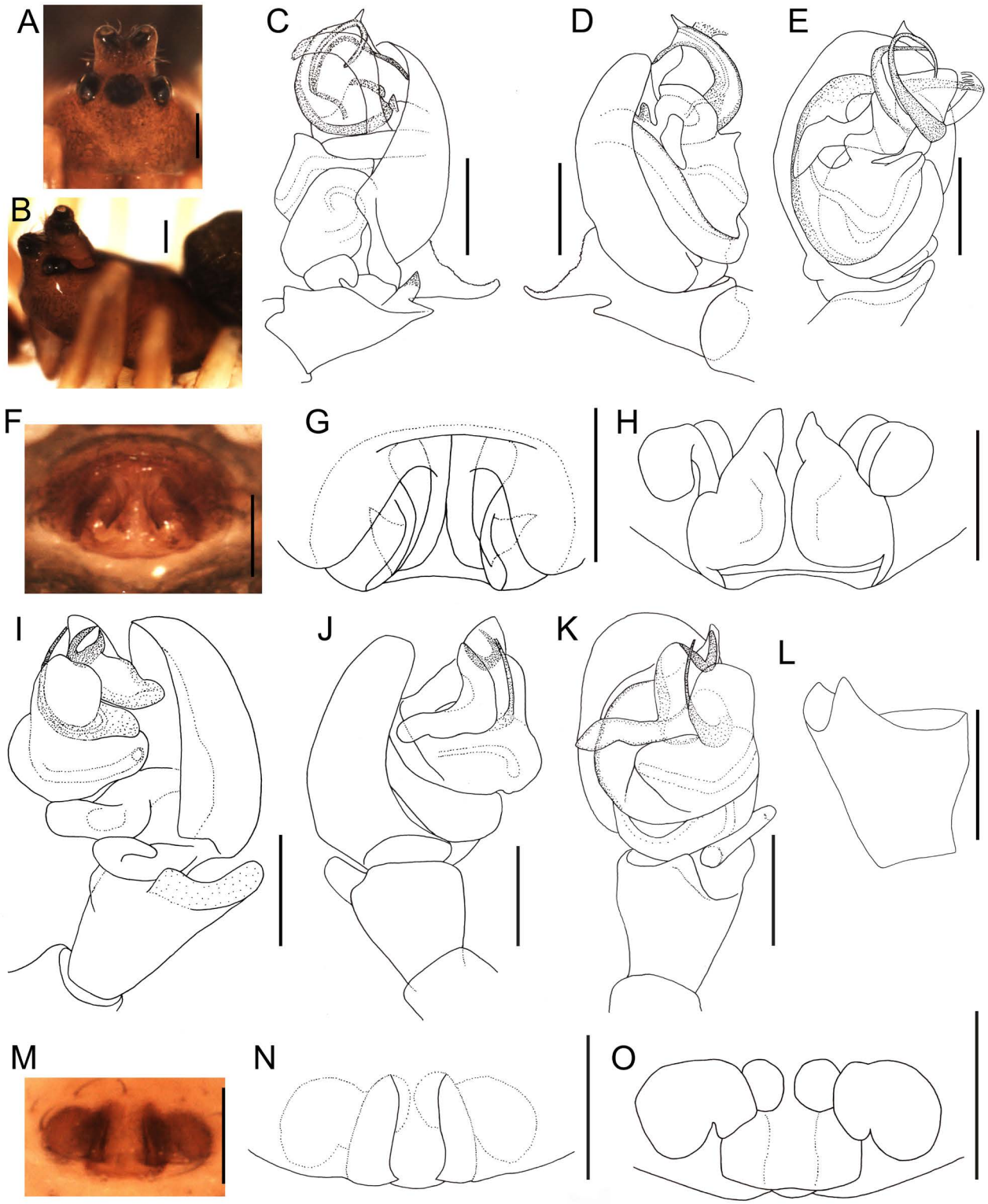


Fig. 9. *Pelecopsis bigibba* n. sp. (A-H) and *Pelecopsis brunea* n. sp. (I-O): A - male head, frontal view; B - idem, lateral view; C, I - male left palp, retrolateral view; D, J - prolateral view; E, K - idem, ventral view; L - idem, tibial apophysis, dorsal view; F-G, M-N - epigynum; H, O - internal genitalia. Scale bars: 0.1 mm.

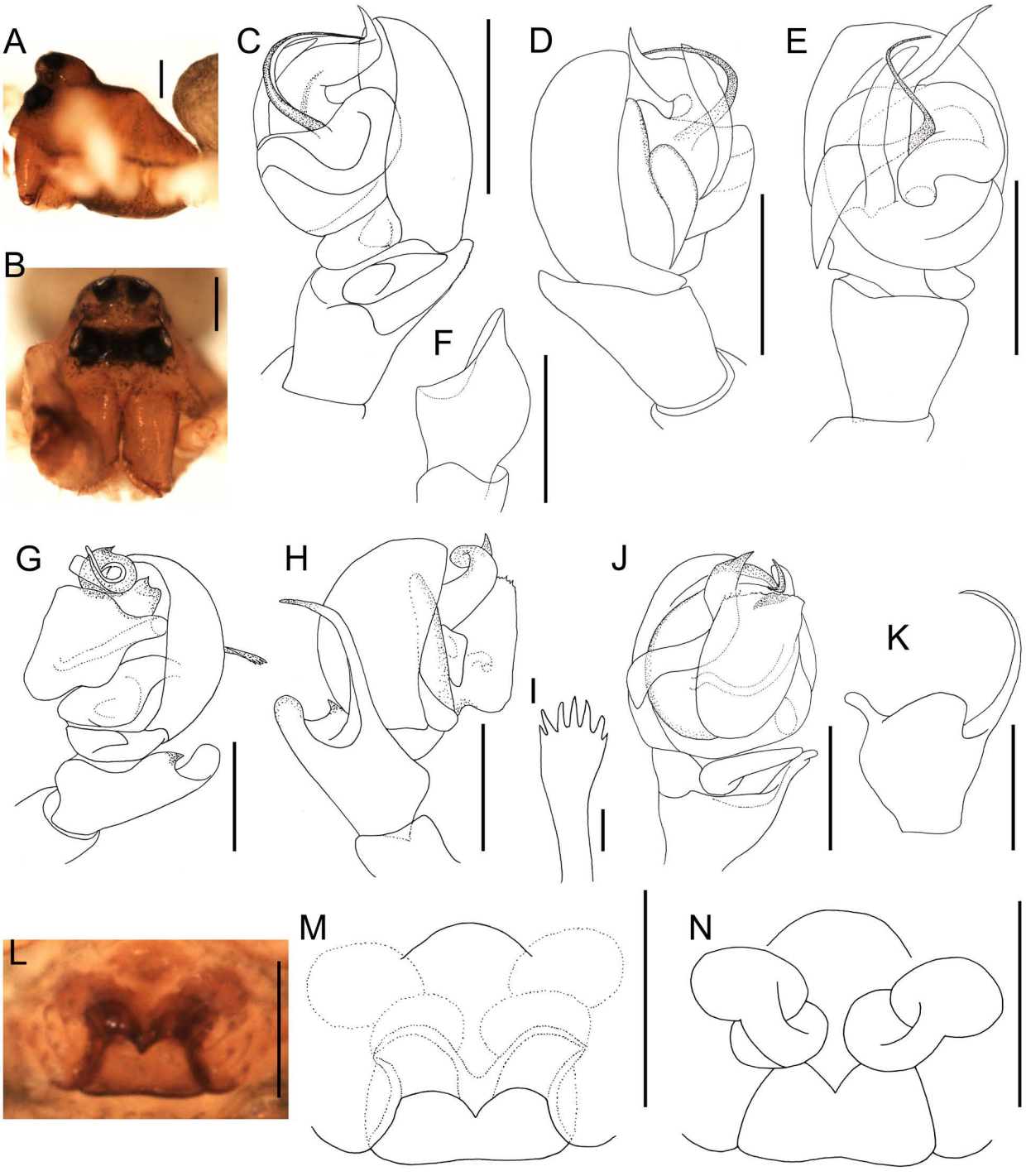


Fig. 10. *Pelecopsis montana* n. sp. (A-F) and *Tapinocyba parva* n. sp. (G-N): A - male head, lateral view; B - idem, frontal view; C, G - male left palp, retrolateral view; D, H - prolateral view; E, J - idem, ventral view; I - idem, tip of prolateral tibial apophysis; K - idem, tibial apophysis, dorsal view; L-M - epigynum; N - internal genitalia. Scale bars: 0.01 mm (I), 0.1 (rest).

characteristica with two braches - in lateral view upper one pointed, lower one serrate.

Female (paratype). Total length 2.40. Habitus as in Figure 6B. Carapace 1.00 long, 0.80 wide. Clypeus height 2.8 times of diameter of AME. AER 0.30, PER 0.33. AME 0.05, ALE 0.08, PME 0.08, PLE 0.07, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.03, AME-PME 0.08, and ALE-PLE 0.01. Median

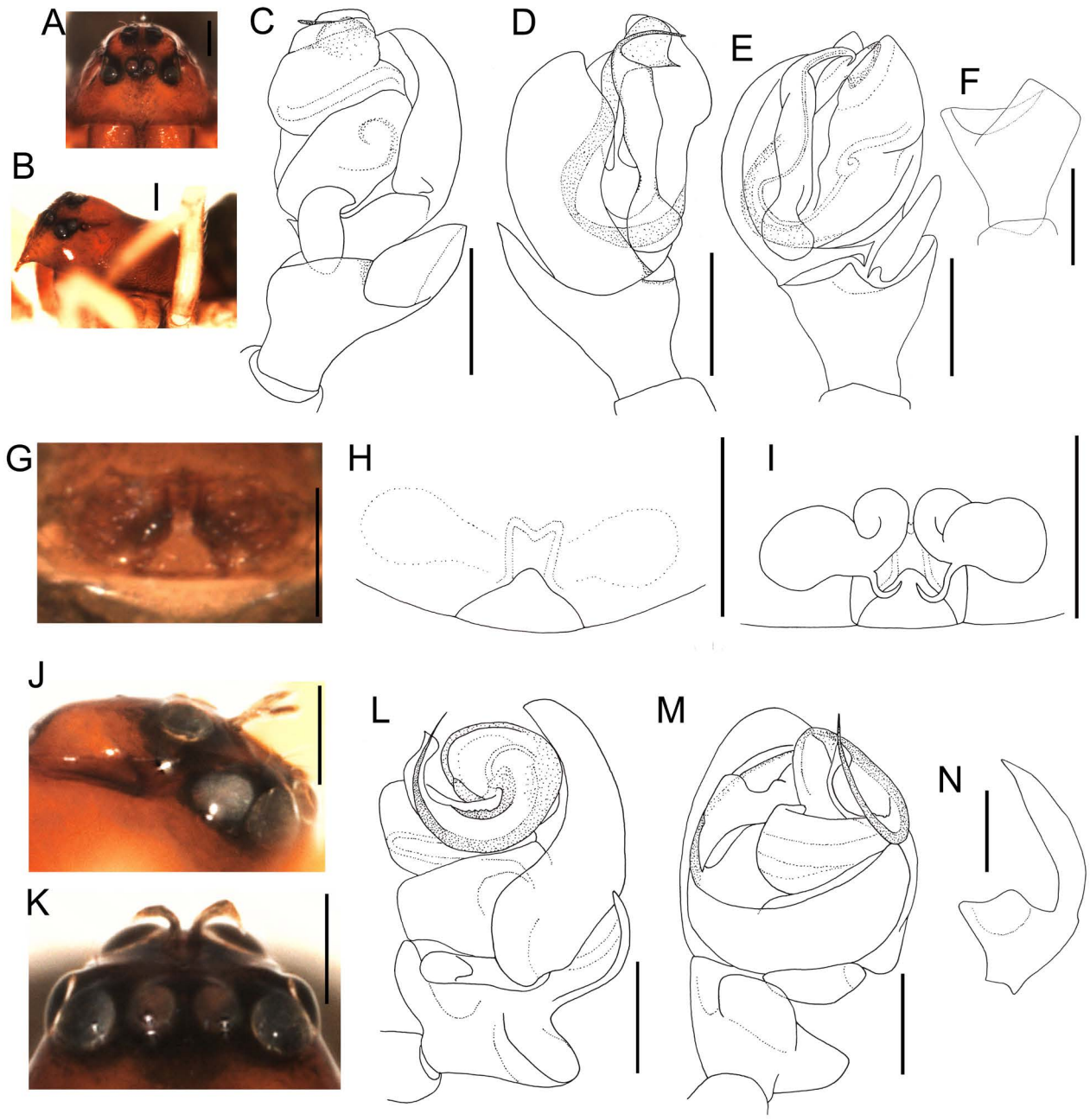


Fig. 11. *Tapinocyba subula* n. sp. (A-I) and *Walckenaeria supercilia* n. sp. (J-N): A, K - male head, frontal view; B, J - idem, lateral view; C, L - male left palp, retrolateral view; D - idem, prolateral view; E, M - idem, ventral view; F, N - idem, tibial apophysis, dorsal view; G-H - epigynum; I - internal genitalia. Scale bars: 0.1 mm.

ocular quadrangle, height > posterior side > anterior side (16:15:10). Chelicera with a promarginal tooth. Sternum 0.62 long, 0.53 wide. Labium 0.17 wide. Leg measurements: I lost, II 3.06 (0.80, 0.28, 0.75, 0.75, 0.48), III 2.72 (0.73, 0.28, 0.65, 0.68, 0.38), IV 3.61 (0.98, 0.28, 0.95, 0.95, 0.45). Tm IV absent. Abdomen 1.70 long, 1.05 wide. Epigynum: small scape in middle; internal genitalia with a pair of spermathecae and curved copulatory ducts (Fig. 12K-M).

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Agyneta insulana* Tanasevitch, 2000**

섬꼬마접시거미 (신칭) (Figs. 6C, 13A-E)

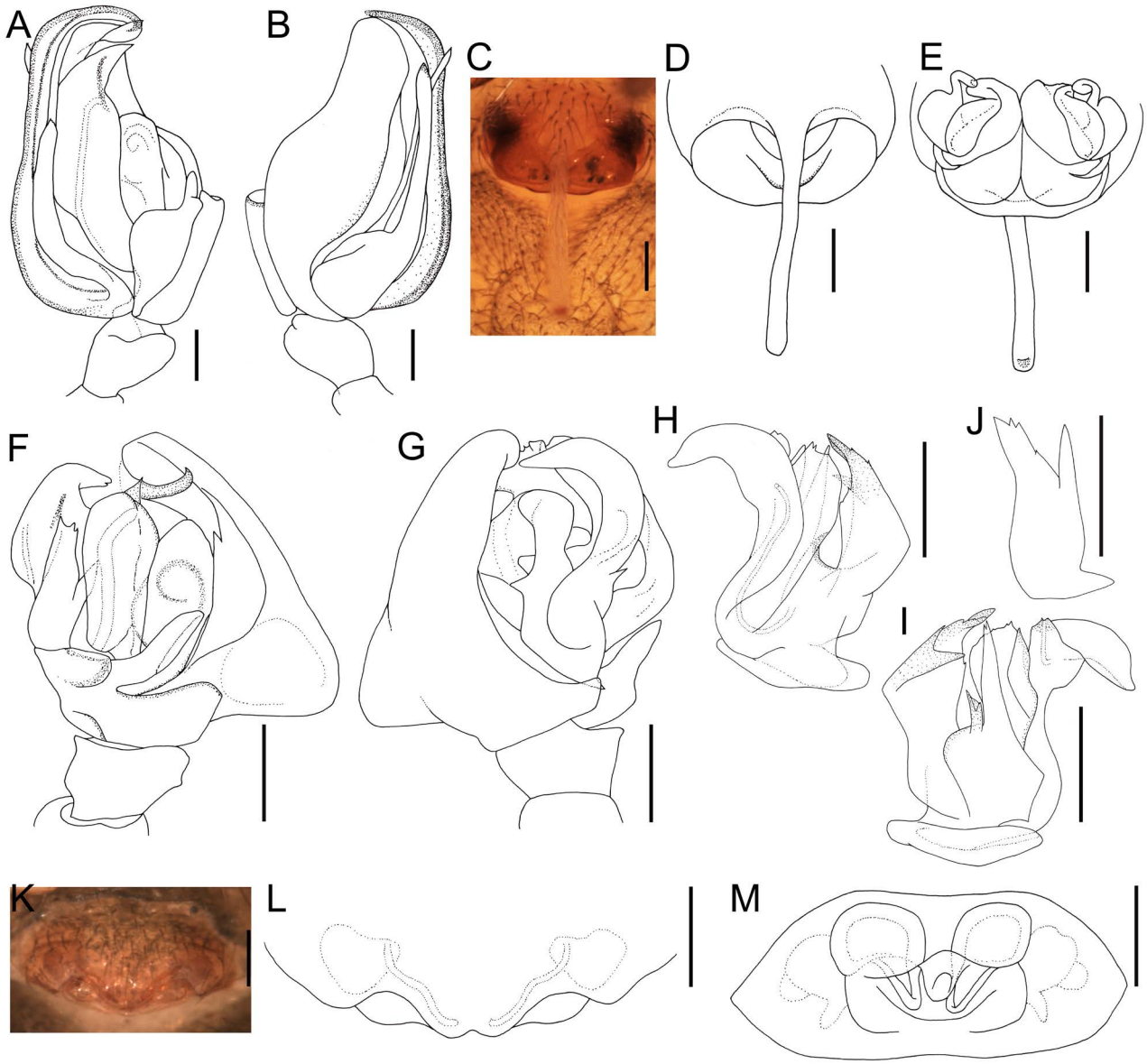


Fig. 12. *Diplostyla concolor* (Wider, 1834) (A-E) and *Agyneta furcula* n. sp. (F-M): A, F - male left palp, retrolateral view; B, G - idem, prolateral view; H - embolic division, ventral view; I - idem, dorsal view; J - idem, lamella characteristica; C-D, K-L - epigynum; E, M - internal genitalia. Scale bars: 0.1 mm.

Agyneta insulana Tanasevitch, 2000: 206.
Meioneta insulana Ono, Matsuda and Saito, 2009: 325.

Material examined. ♂, mixed forest (35°20′17″N, 127° 32′00″E, alt. 721 m), Sannae-myeon, Namwon-si, Jeollabuk-do, 30 June 2010, J. C. Lim.

Diagnosis. This species resembles *A. saaristoi* Tanasevitch, 2000 and *A. similis* (Kulczyński, 1926) in the paracymbium and embolic division of male palp, but different from the latter by the denticles of embolic base, the terminal apophysis process, and the depression of lamella characteristica (Fig. 13C-E).

Description. Male. Total length 1.65. Habitus as in Figure 6C. Carapace yellow 0.83 long, 0.68 wide; Clypeus height 1.8 times of diameter of AME. AER 0.33, PER 0.35. AER recurved slightly and PER straight in dorsal view. AME 0.07, ALE 0.08, PME 0.07, PLE 0.07, AME-AME 0.03, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.05, AME-PME 0.07, and ALE-PLE contiguous. Median ocular quadrangle, height = posterior side > anterior side (13:10). Chelicera with a promarginal and three retromarginal teeth. Sternum 0.52 long, 0.49 wide.

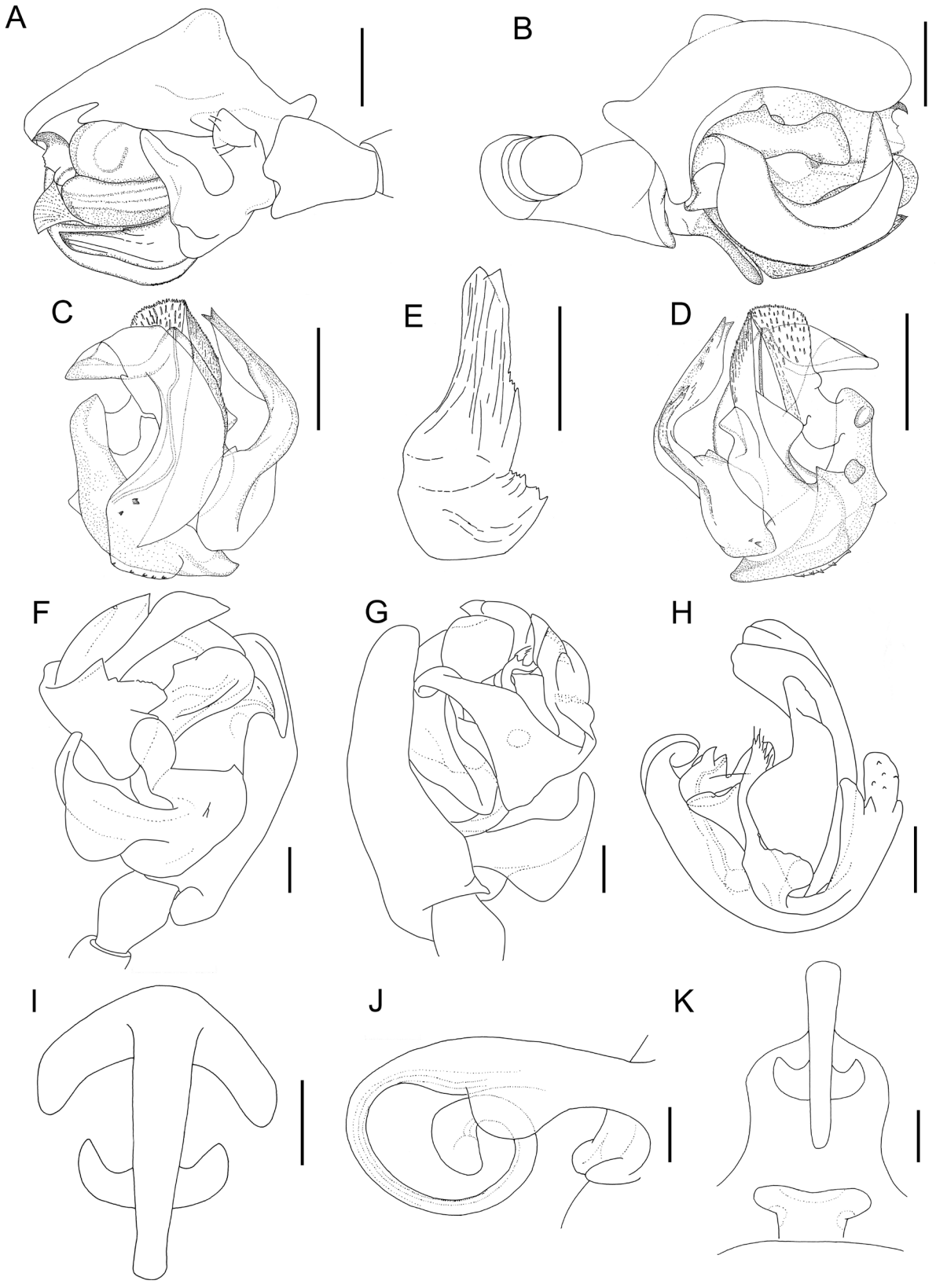


Fig. 13. *Agyneta insulana* Tanasevitch, 2000 (A-E) and *Arcuphantes chiakensis* n. sp. (F-K): A, F - male left palp, retrolateral view; B, G - idem, prolateral view; C, H - embolic division, ventral view; D - idem, dorsal view; E - lamella characteristica; I -epigynum, ventral view; J - idem, lateral view; K - posterior view. Scale bars: 0.1 mm.

Labium 0.16 wide. Leg measurements: I 3.58 (0.94, 0.23, 0.92, 0.85, 0.64), II 3.22 (0.86, 0.23, 0.79, 0.78, 0.56), III 2.43 (0.66, 0.21, 0.59, 0.59, 0.38), IV 3.30 (0.92, 0.22, 0.87, 0.81, 0.48). Leg I/c 4.31. Fem. I/c 1.13. Tib. I/c 1.11. Met. I/c 1.02. Pat. I + tib. I/c 1.39. Met. I/tar. I 1.30. Met. IV/tar. IV 1.69. Chaetotaxy 2-2-2-2. Tm 1 0.22. Tm IV absent. Abdomen oval and dirty yellow, and 0.88 long, 0.55 wide. Palp (Fig. 13A-E): paracymbium with anterior pocket; suprategular apophysis clawlike; embolus curved with five denticles at base, embolus proper protruded; lamella characteristica with two denticles at tip and several denticles at base; terminal apophysis with a process at each side.

Habitat. Mixed forest.

World Distribution. Finland, Iceland, Kazakhstan, Korea (Jeollabuk-do), Russia.

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Arcuphantes* Chamberlin and Ivie, 1943
나사접시거미속

***Arcuphantes chiakensis* n. sp.**
치악나사접시거미 (신칭) (Figs. 6D-E, 13F-K)

Material examined. Holotype: ♂, mixed forest (37°20′ 42″N, 128°06′16″E, alt. 488 m), Gangnim-myeon, Hoengseong-gun, Gangwon-do, 21 July 2010, J. C. Lim. Paratypes: 2우우, same data as holotype.

Etymology. The specific name comes from the type locality, Mt. Chiak.

Diagnosis. The new species is very similar to *A. rarus* Seo, 2013 in the general appearance, but can be recognized by the round tip of posterior part of radix, the shape of anterior pseudolamella, and the lamellar extension with a small triangular process at base (Fig. 13F-H).

Description. Male (holotype). Total length 2.84. Habitus as in Figure 6D. Carapace reddish brown, 1.32 long, 1.24 wide. Clypeus height 3 times of diameter of AME. AER 0.49, PER 0.55. Both eye rows recurved in dorsal view. AME 0.07, ALE 0.12, PME 0.10, PLE 0.10, AME-AME 0.03, AME-ALE 0.10, PME-PME 0.06, PME-PLE 0.08, AME-PME 0.10, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (20:19:12). Chelicera with two promarginal teeth. Sternum 0.75 long, 0.78 wide. Labium 0.23 wide. Abdomen oval and dark brown with a longitudinal pale band on each anterior margin and four transverse pale bands posteriorly, and 1.48 long, 0.58 wide. Palp (Fig. 13F-H): paracymbium bifurcated by a blade-like lower branch and a long bent upper branch, with a small proximal process and a sharp-pointed lateral process; pit hook of suprategulum reduced; anterior part of median membrane round, chitinized, other median membrane transparent with a papillae portion. Embolic division: anterior part of radix hook-like; posterior part broad with some nodules along margin; embolus proper and apex small and pointed; anterior terminal apophysis triangular, median one membranous with a serrated margin and papillae; pseudolamella bifurcate distally, posterior without spines on distal part and anterior with a big triangular chitinized lamella; lamellar extension triangular, membranous, with a small triangular process at base.

Female (paratype). Total length 2.48. Habitus as in Figure 5E. Carapace 1.20 long, 1.04 wide. Clypeus height 3 times of diameter of AME. AER 0.44, PER 0.48. AME 0.07, ALE 0.10, PME 0.09, PLE 0.09, AME-AME 0.03, AME-ALE 0.07, PME-PME 0.07, PME-PLE 0.07, AME-PME 0.12, and ALE-PLE 0.01. Median ocular quadrangle, posterior side = height > anterior side (19:12). Chelicera with three promarginal and five retromarginal teeth. Sternum 0.68 long, 0.70 wide. Labium 0.20 wide. Abdomen dark brown with four pairs of marginal dots and three medial dots, 1.52 long, 1.04 wide. Epigynum: scape long coiled, basal part broad; posterior median plate with projections on both sides; distal part of scape with well-developed lateral lobes (Fig. 13I-K).

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Arcuphantes chilboensis* n. sp.**
칠보나사접시거미 (신칭) (Figs. 6F-G, 14A-F)

Material examined. Holotype: ♂, mixed forest (36°41′ 29″N, 129°20′22″E, alt. 175 m), Onjeong-myeon, Uljin-gun, Gyeongsangbuk-do, 24 July 2010, J. C. Lim. Paratypes: 2우우, same data as holotype.

Etymology. The specific name comes from the type locality, Mt. Chilbo.

Diagnosis. The new species is very similar to *A. scitulus* Paik, 1974 in the general appearance, but different from the latter by the shapes of paracymbial branches, the pseudolamella and the lamellar extension (Fig. 14A-C).

Description. Male (holotype). Total length 2.04. Habitus as in Figure 6F. Carapace dirty brown, 1.08 long, 0.88 wide; Clypeus height 2.2 times of diameter of AME. AER 0.40, PER 0.43. Both eye rows recurved in dorsal view. AME 0.07, ALE 0.09, PME 0.08, PLE 0.09, AME-AME 0.03, AME-ALE 0.07, PME-PME 0.07, PME-PLE 0.09, AME-PME 0.09, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > height > anterior side (18:17:11). Chelicera with a tooth on each margin. Sternum 0.60 long, 0.56 wide. Labium 0.21 wide. Abdomen oval and dark brown, with six pairs of marginal dots and three medial dots, and 0.96 long, 0.68 wide. Palp (Fig. 14A-C): paracym-

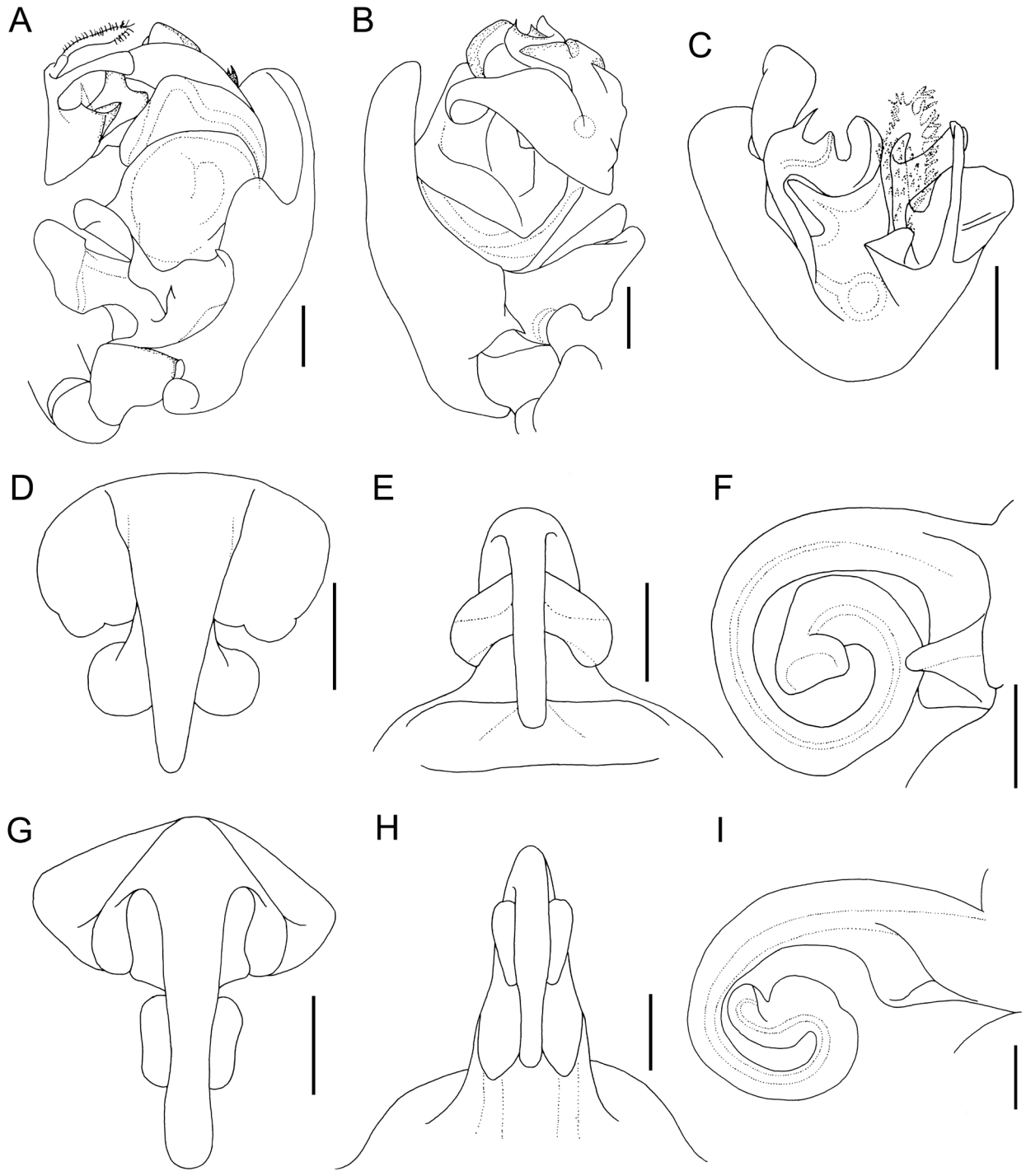


Fig. 14. *Arcuphantes chilboensis* n. sp. (A-F) and *Arcuphantes longiconvolutus* n. sp. (G-I): A - male left palp, retrolateral view; B - idem, prolateral view; C - embolic division, ventral view; D, G - epigynum, ventral view; E, H - idem, posterior view; F, I - idem, lateral view. Scale bars: 0.1 mm.

bium bifurcated by a broad lower branch and a narrow upper branch, with a small hooked proximal process and a small sharp-pointed lateral process; pit hook of suprategulum distinct; anterior part of median membrane round, chitinized. Embolic division: anterior part of radix hook-like; posterior part broad; embolus proper and apex small and pointed; anterior terminal apophysis blunt, median one membranous with a serrated margin

and papillae; pseudolamella bifurcate distally; lamellar extension long, membranous.

Female (paratype). Total length 2.12. Habitus as in Figure 6G. Carapace 1.00 long, 0.80 wide. Clypeus height 3 times of diameter of AME. AER 0.35, PER 0.39. AME 0.05, ALE 0.09, PME 0.09, PLE 0.09, AME-AME 0.03, AME-ALE 0.05, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.09, and ALE-PLE 0.01. Median ocular quadrangle, posterior side = height > anterior side (17:10). Chelicera with three promarginal and five retromarginal teeth. Sternum 0.56 long, 0.55 wide. Labium 0.20 wide. Abdomen 1.44 long, 0.84 wide. Epigynum: scape coiled; posterior median plate broad transversely; distal part of scape with well-developed lateral lobes (Fig. 14D-F).

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangbuk-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Arcuphantes longiconvolutus* n. sp.**
백담나사접시거미 (신칭) (Figs. 6H, 14G-I)

Material examined. Holotype: ♀, mixed forest (38°09′58″N, 128°22′40″E, alt. 475 m), Buk-myeon, Inje-gun, Gangwon-do, 28 July 2014, B. K. Seo.

Etymology. The specific name is a Latin participle "*longiconvolutus*" (long coiled), referring to the shape of epigynum scape.

Diagnosis. The new species is similar to *A. rarus* Seo, 2013 in the shape of epigynum, but different from the latter by the abdominal pattern, the shape of posterior median plate, the coiling of scape, and the shape of lateral lobes (Figs. 6H, 14G-I).

Description. Female (holotype). Total length 2.64. Habitus as in Figure 6H. Carapace reddish brown, 1.28 long, 1.12 wide. Clypeus height 2.5 times of diameter of AME. AER 0.46, PER 0.49. Both eye rows recurved in dorsal view. AME 0.08, ALE 0.10, PME 0.10, PLE 0.09, AME-AME 0.01, AME-ALE 0.08, PME-PME 0.07, PME-PLE 0.07, AME-PME 0.09, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (20:19:12). Chelicera with three teeth on each margin. Sternum 0.72 long, 0.78 wide. Labium 0.25 wide. Abdomen oval and dark brown, with a white round stripe along margin of dorsum and two white medial dots, 1.68 long, 1.00 wide. Epigynum: scape long coiled; posterior median plate adhere to basal plate; distal part of scape with longish lateral lobes (Fig. 14G-I).

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Arcuphantes namweonensis* n. sp.**
남원나사접시거미 (신칭) (Figs. 6I, 15A-D)

Material examined. Holotype: ♂, mixed forest (35°20′18″N, 127°32′01″E, alt. 780 m), Sannae-myeon, Namwon-si, Jeollabuk-do, 1 October 2009, B. K. Seo.

Etymology. The specific name comes from the type locality, Namwon city.

Diagnosis. The new species is easily distinguished from its congeneric species by paracymbium and embolic division (Fig. 15A-D).

Description. Male (holotype). Total length 2.56. Habitus as in Figure 6I. Carapace light dirty brown, 1.36 long, 1.20 wide. Clypeus height 2.7 times of diameter of AME. AER 0.46, PER 0.49. Both eye rows recurved in dorsal view. AME 0.08, ALE 0.12, PME 0.10, PLE 0.10, AME-AME 0.02, AME-ALE 0.07, PME-PME 0.05, PME-PLE 0.05, AME-PME 0.09, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > height > anterior side (20:19:13). Chelicera with a tooth on each margin. Sternum 0.72 long, 0.72 wide. Labium 0.22 wide. Abdomen oval and dark brown, 0.88 long, 0.58 wide; dorsum with a pair of white band on both margins anteriorly and a white transverse stripe posteriorly. Palp (Fig. 15A-D): paracymbium bifurcated by broad branches, with a small hooked proximal process and a small sharp-pointed lateral process; pit hook of suprategulum indistinct; anterior part of median membrane round, chitinized. Embolic division: anterior part of radix hook-like; posterior part broad and sharp; embolus proper and apex small and pointed; anterior terminal apophysis elongate and pointed, median one membranous with a serrated margin and papillae; pseudolamella hatchet-like distally; lamellar extension long, membranous.

Habitat. Mixed forest.

World Distribution. Korea (Jeollabuk-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Arcuphantes pennatoides* n. sp.**
너도날개접시거미 (신칭) (Figs. 6J-K, 15E-H, K-M)

Material examined. Holotype: ♂, mixed forest (35°23′35″N, 129°06′21″E, alt. 631 m), Sangbuk-myeon, Yangsan-si, Gyeongsangnam-do, 27 September 2010, J. C. Lim. Paratypes: 2♂♂, 2♀♀, same data as holotype.

Etymology. The specific name is a Latin adjective "*pennatus*" (winged) having the suffix "*-oides*" (resembling).

Diagnosis. The new species is very similar to *A. chilboensis* n. sp., *A. pennatus* Paik, 1983 and *A. scitulus* Paik, 1974 in the male palp appearance, but different from *A. chilboensis* n. sp. by the shapes of paracymbial upper branch, posterior part of radix and rectangular

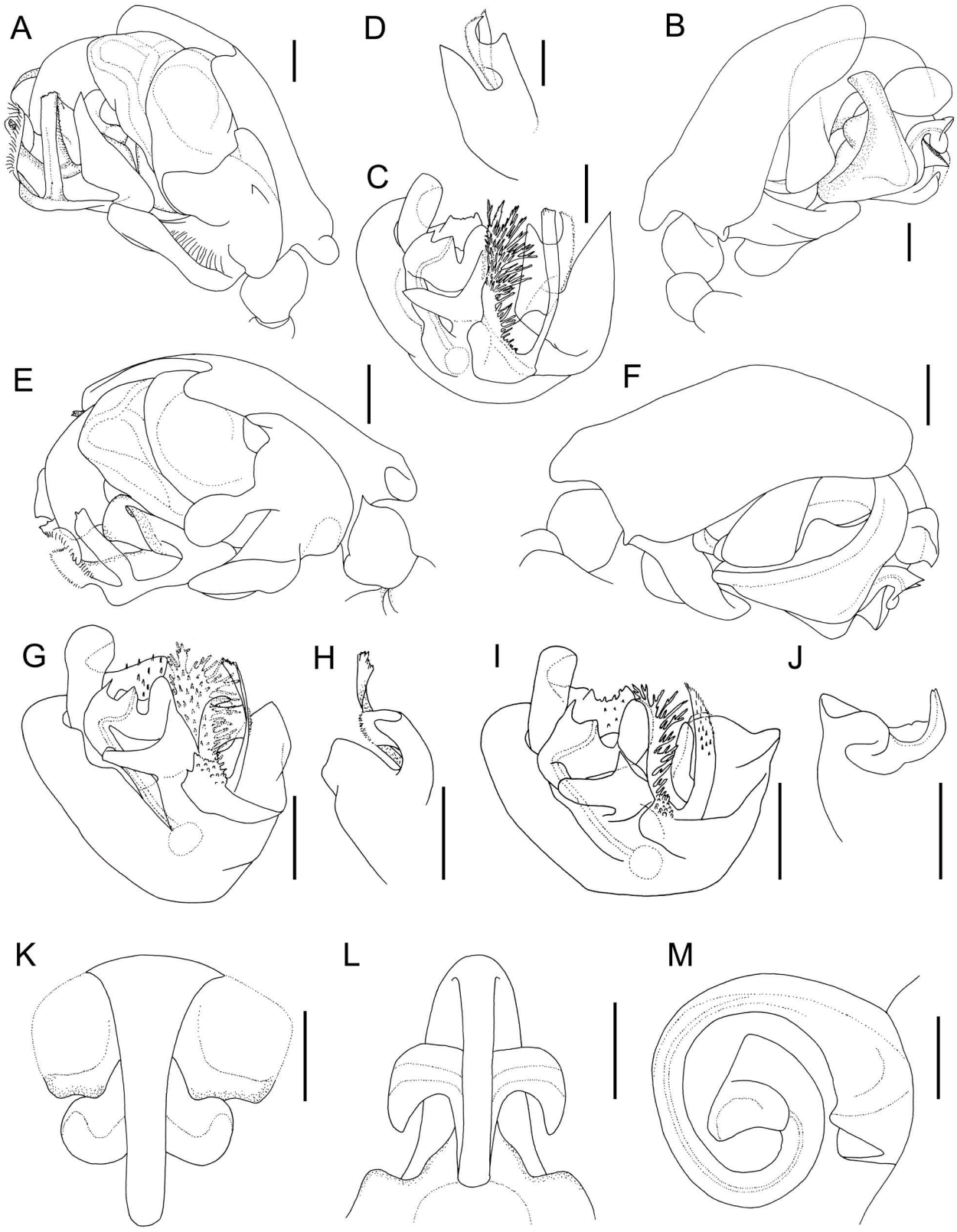


Fig. 15. *Arcuphantes namweonensis* n. sp. (A-D), *Arcuphantes pennatoides* n. sp. (E-H, K-M), and *Arcuphantes pennatus* Paik, 1983 (I-J): A, E - male left palp, retrolateral view; B, F - idem, prolateral view; C, G, I - embolic division, ventral view; D, H, J - idem, process of posterior part of radix; K - epigynum, ventral view; L - idem, posterior view; M - idem, lateral view. Scale bars: 0.1 mm.

pseudolamella tip, and the position of lamellar extension on the posterior part of radix; clearly different from *A. pennatus* by the shapes of paracymbial upper branch, pseudolamella, and the process of posterior part of radix; and easily distinguished from *A. scitulus* by the shapes of paracymbial upper branch, pseudolamella and lamellar extension. (Fig. 15E-J).

Description. Male (holotype). Total length 2.24. Habitus as in Figure 6J. Carapace dirty brown, 1.12 long, 0.96 wide. Clypeus height 1.7 times of diameter of AME. AER 0.42, PER 0.46. Both eye rows recurved in dorsal view. AME 0.08, ALE 0.12, PME 0.10, PLE 0.09, AME-AME 0.01, AME-ALE 0.05, PME-PME 0.05, PME-PLE 0.05, AME-PME 0.08, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > eight > anterior side (18:17:12). Chelicera with a tooth on each margin. Sternum 0.61 long, 0.61 wide. Labium 0.20 wide. Abdomen oval and dark brown with blurry white bands on both margins anteriorly, 1.12 long, 0.72 wide. Palp (Fig. 15E-H): paracymbium bifurcated by a broad lower branch with convolute tip and a round spatula-like upper branch, with a small hooked proximal process and a small sharp-pointed lateral process; pit hook of suprategulum distinct; anterior part of median membrane round, chitinized. Embolic division: anterior part of radix hook-like; posterior part broad; embolus proper and apex small and pointed; anterior terminal apophysis blunt, median one membranous with a serrated margin and papillae; pseudolamella rectangular; lamellar extension long, membranous.

Female (paratype). Total length 1.80. Habitus as in Figure 6K. Carapace 0.96 long, 0.80 wide. Clypeus height 2.8 times of diameter of AME. AER 0.36, PER 0.39. AME 0.05, ALE 0.10, PME 0.08, PLE 0.09, AME-AME 0.02, AME-ALE 0.05, PME-PME 0.05, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE contiguous. Median ocular quadrangle, posterior side > eight > anterior side (17:16:10). Chelicera with three promarginal and five retromarginal teeth. Sternum 0.51 long, 0.55 wide. Labium 0.18 wide. Abdomen 1.04 long, 0.72 wide. Epigynum: scape coiled, basal part broad; posterior median plate with three projections posteriorly; distal part of scape with well-developed lateral lobes (Fig. 15K-M).

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangnam-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

***Arcuphantes pyeongchangensis* n. sp.**
평창나사접시거미 (신칭) (Figs. 6L, 16A-D)

Material examined. Holotype: ♂, mixed forest (37°41′12″N, 128°30′14″E, alt. 977 m), Jinbu-myeon, Pyeongchang-gun, Gangwon-do, 20 July 2010, J. C. Lim.

Etymology. The specific name comes from the type locality, Pyeongchang County.

Diagnosis. The new species is easily distinguished from its congeneric species by the shape of paracymbial branches, posterior part of radix, pseudolamella, and lamellar extension (Fig. A-D).

Description. Male (holotype). Total length 1.80. Habitus as in Figure 6L. Carapace dark brown, 0.95 long, 0.80 wide. Clypeus height 3 times of diameter of AME. AER 0.32, PER 0.35. Both eye rows recurved in dorsal view. AME 0.05, ALE 0.08, PME 0.08, PLE 0.08, AME-AME 0.02, AME-ALE 0.04, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.08, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (15:14:10). Chelicera with three promarginal and four minute retromarginal teeth. Sternum 0.55 long, 0.53 wide. Labium 0.16 wide. Abdomen oval and dark brown, and 0.95 long, 0.63 wide. Palp (Fig. 16A-D): paracymbium bifurcated by bilaminar broad lower branch and a flat spatula-like upper branch, with a small proximal process and a pointed lateral process; pit hook of suprategulum distinct; anterior part of median membrane round, chitinized, other median membrane transparent with a papillae portion. Embolic division: anterior part of radix hook-like; posterior part blunt; embolus proper and apex small and pointed; anterior terminal apophysis triangular, median one membranous with a serrated margin and papillae; pseudolamella long, narrow, with a serrated margin and a pointed lateral process; lamellar extension membranous, chitinized.

Habitat. Mixed forest.

World Distribution. Korea (Gangwon-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

Genus *Collis* n. gen. 산애접시거미속 (신칭)

Type species. *Collis flavus* n. sp.

Etymology. The generic name is derived from the Latin noun "*collis*" (hill), referring to the habitat of new genus. Gender is masculine.

Diagnosis. This new genus is distinguished from all other linyphiids by the shape of paracymbium, lamella characteristica, filiform embolus, terminal apophysis divided two parts, and radix (Figs. 16E-H, 17A-D, H-K).

Description. Total length 1.20-1.40. Carapace yellow, unmodified in both sexes. AER recurved and PER straight in dorsal view. Chelicerae with six promarginal and five retromarginal teeth. Chaetotaxy 2-2-2-1. Tm I 0.36-0.39, Tm IV absent. Abdomen dirty yellow to dark brown. Male palp: paracymbium base with two large processes; reverse triangular lamella characteristica with pointed process dorsally; terminal apophysis

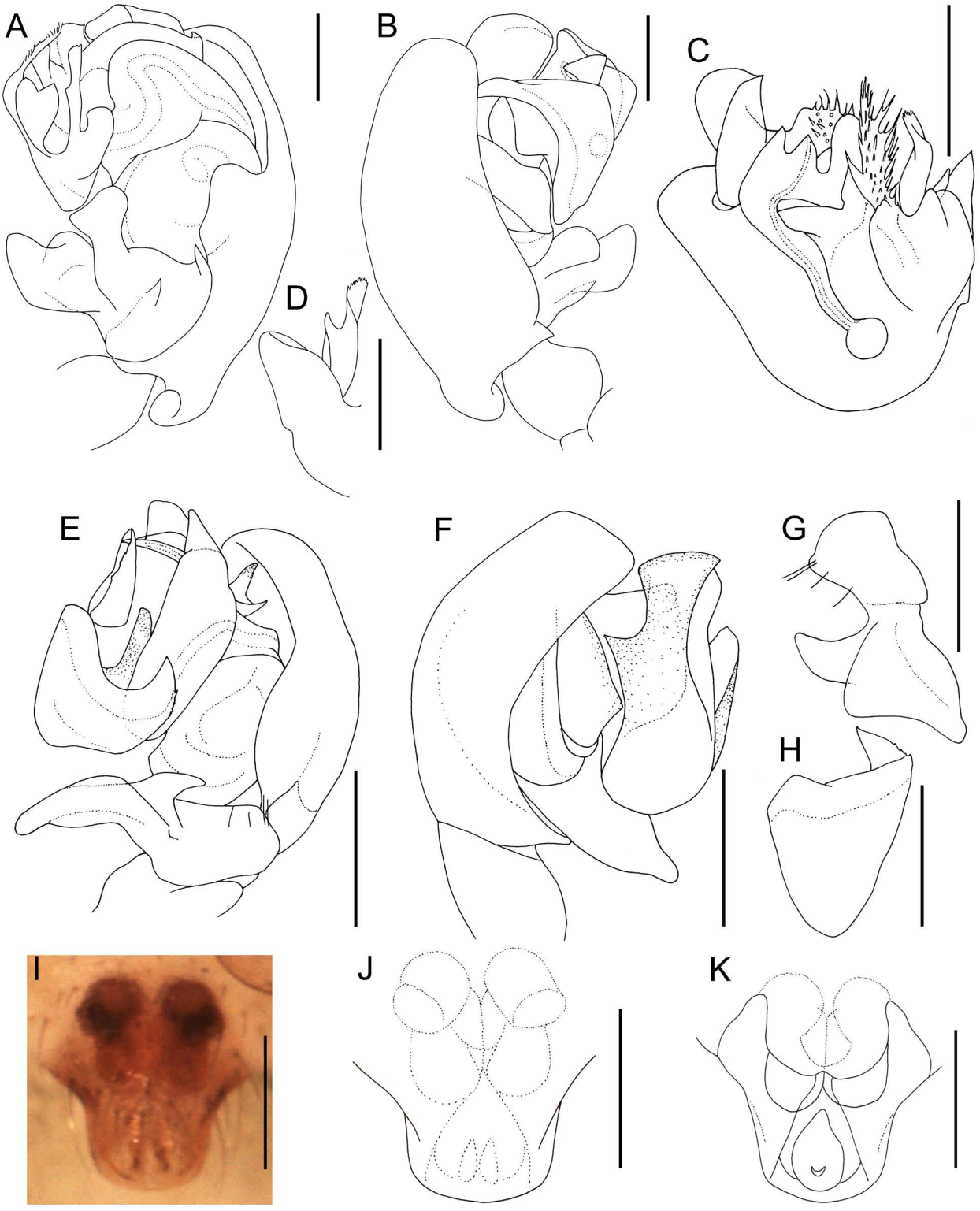


Fig. 16. *Arcuphantes pyeongchangensis* n. sp. (A-D) and *Collis flavus* n. sp. (E-K): A, E - male left palp, retrolateral view; B, F - idem, prolateral view; C - embolic division, ventral view; D - idem, process of posterior part of radix; G - paracymbium; H - lamella characteristica; I-J - epigynum; K - internal genitalia. Scale bars: 0.1 mm.

membranous and chitinized, divided two part; embolus curved and elongate; distal suprategular apophysis bifurcate (Fig. 16E-H). Epigynum: ventral plate blunt, protruded posteriorly; scape small; internal genitalia with a pair of spermathecae and copulatory ducts (Fig. 16I-K).
Distribution. Korea.

***Collis flavus* n. sp.**
노랑산애접시거미 (신칭) (Figs. 6M-N, 16E-K)

Material examined. Holotype: ♂, mixed forest (36°49′05″N, 129°01′46″E, alt. 619 m), Jaesan-myeon, Bonghwa-gun, Gyeongsangbuk-do, 23 July 2010, J. C. Lim. Paratypes: 1♀, same data as holotype; 1♂, mixed forest (36°50′37″N, 129°07′01″E, alt. 712 m), Socheon-myeon, Bonghwa-gun, Gyeongsangbuk-do, 23 July 2010, J. C. Lim.
Etymology. The specific name is a Latin adjective "*flavus*" (yellow), referring to the carapace color of the type specimens.
Diagnosis. The new species is easily distinguished from its congeneric species by the shape of paracymbial branch and process, lamellar characteristica, embolus and female internal genitalia (Fig. 16E-H, K).
Description. Male (holotype). Total length 1.24. Habitus as in Figure 6M. Carapace deep yellow, 0.65 long, 0.53 wide. Clypeus height 5 times of diameter of AME. AER 0.20, PER 0.22. AER recurved and PER straight in dorsal view. AME 0.03, ALE 0.05, PME 0.05, PLE 0.07, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.01, AME-PME 0.04, and ALE-PLE 0.01. Median ocular quadrangle, posterior side > height > anterior side (9:8:6). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.39 long, 0.36 wide. Labium 0.13 wide. Leg measurements: I 1.86 (0.53, 0.17, 0.46, 0.35, 0.35), II 1.68 (0.48, 0.17, 0.39, 0.33, 0.31), III 1.43 (0.40, 0.16, 0.31, 0.29, 0.27), IV 1.93 (0.55, 0.17, 0.51, 0.39, 0.31). Leg I/c 2.86. Fem. I/c 0.82. Tib. I/c 0.71. Met. I/c 0.54. Pat. I + tib. I/c 0.97. Met. I/tar. I 1.00. Met. IV/tar. IV 1.26. Chaetotaxy 2-2-2-1. Tm 1 0.36, Tm IV absent. Abdomen oval and dark brown with pale dots irregularly, and 0.62 long, 0.48 wide. Palp (Fig. 16E-H): paracymbium base with a broad branch and a curved pointed process; reverse triangular lamella characteristica with pointed process dorsally and a chitinized elongate apophysis; terminal apophysis membranous and chitinized, divided two part; embolus curved and elongate; distal suprategular apophysis bifurcate.

Female (paratype). Total length 1.25. Habitus as in Figure 6N. Carapace yellow, 0.65 long, 0.44 wide. Clypeus height 2.3 times of diameter of AME. AER 0.17, PER 0.21. AME 0.04, ALE 0.05, PME 0.05, PLE 0.05, AME-AME contiguous, AME-ALE contiguous, PME-PME 0.01, PME-PLE 0.01, AME-PME 0.05, and ALE-PLE 0.01. Median ocular quadrangle, posterior side = height > anterior side (9:6). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.38 long, 0.34 wide. Labium 0.12 wide. Leg measurements: I 1.60 (0.47, 0.18, 0.36, 0.29, 0.30), II 1.49 (0.42, 0.18, 0.33, 0.27, 0.29), III 1.31 (0.36, 0.17, 0.26, 0.26, 0.26), IV 1.73 (0.49, 0.17, 0.44, 0.33, 0.30). Leg I/c 2.46. Fem. I/c 0.72. Tib. I/c 0.55. Met. I/c 0.45. Pat. I + tib. I/c 0.83. Met. I/tar. I 0.97. Met. IV/tar. IV 1.10. Chaetotaxy 2-2-2-1. Tm 1 0.36, Tm IV absent. Abdomen dirty yellow, and 0.77 long, 0.59 wide. Epigynum: ventral plate blunt, protruded posteriorly; scape small; internal genitalia with a pair of spermathecae and copulatory ducts (Fig. 16I-K).
Habitat. Mixed forest.
World Distribution. Korea (Gyeongsangbuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

***Collis pusillus* n. sp.**
작은산애접시거미 (신칭) (Figs. 6O-P, 17A-G)

Material examined. Holotype: ♂, mixed forest (35°27′54″N, 126°52′35″E, alt. 390 m), Bokheung-myeon, Sunchang-gun, Jeollabuk-do, 13 May 2006, B. K. Seo. Paratypes: 5♂♂, 1♀, same data as holotype.
Etymology. The specific name is a Latin adjective "*pusillus*" (very small), referring to the size of the type specimens.
Diagnosis. The new species is very similar to *C. silvaticus* n. sp. in the general appearance and male palp structure, but different from the latter by the detailed shape of paracymbium, lamella characteristica, and the radix tip in prolateral view (Fig. 17A-D).
Description. Male (holotype). Total length 1.12. Habitus as in Figure 6O. Carapace deep yellow, 0.58 long, 0.48 wide. Clypeus height 3 times of diameter of AME. AER 0.17, PER 0.21. AER recurved and PER straight in dorsal view. AME 0.03, ALE 0.05, PME 0.04, PLE 0.05, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, AME-PME 0.03, and ALE-PLE contiguous. Median ocular quadrangle, height = posterior side > anterior side (9:5). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.36 long, 0.34 wide. Labium 0.12 wide. Leg measurements: I 1.64 (0.47, 0.18, 0.39, 0.31, 0.29), II 1.48 (0.42, 0.16, 0.34, 0.27, 0.29), III 1.28 (0.35, 0.16, 0.26, 0.25, 0.26), IV 1.70 (0.47, 0.17, 0.44, 0.33, 0.29). Leg I/c 2.83. Fem. I/c 0.81. Tib. I/c 0.67. Met. I/c 0.53. Pat. I + tib. I/c 0.98. Met. I/tar. I 1.07. Met. IV/tar. IV 1.14. Chaetotaxy 2-2-2-1). Tm 1 0.39, Tm IV absent. Abdomen oval and dark brown, and 0.60 long, 0.42 wide. Palp (Fig. 17A-D):

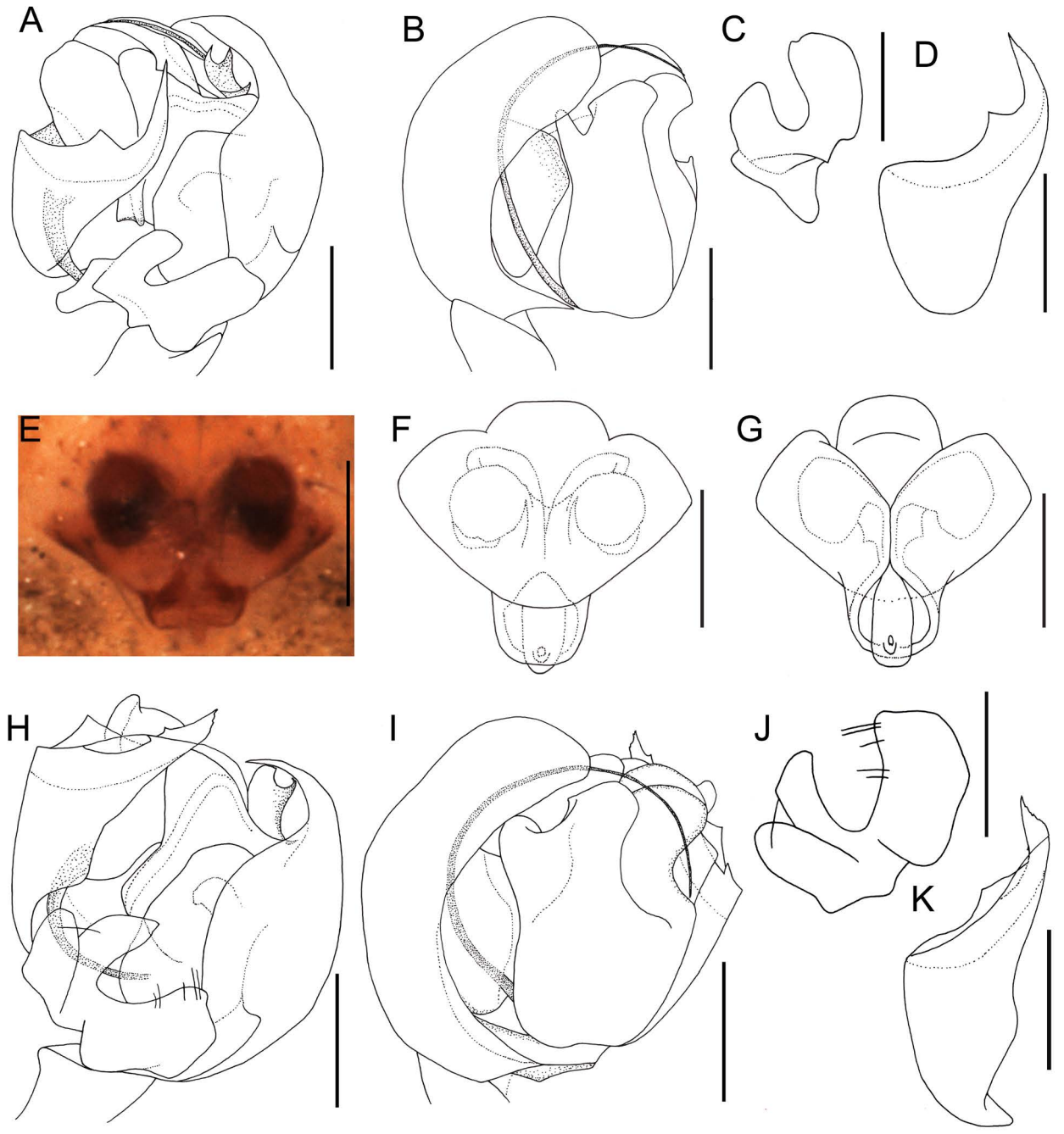


Fig. 17. *Collis pusillus* n. sp. (A-G) and *Collis silvaticus* n. sp. (H-K): A, H - male left palp, retrolateral view; B, I - idem, prolateral view; C, J - paracymbium; D, K - lamella characteristica; E-F - epigynum; G - internal genitalia. Scale bars: 0.1 mm.

paracymbium base with two blunt and a small pointed processes; reverse triangular lamella characteristica with two pointed dorsal process; terminal apophysis membranous and chitinized, divided two part; embolus curved, very long and slim; distal suprategular apophysis bifurcate.

Female (paratype). Total length 1.32. Habitus as in Figure 6P. Carapace yellow, and 0.70 long, 0.56 wide. Clypeus height 3 times of diameter of AME. AER 0.20, PER 0.22. AME 0.03, ALE 0.05, PME 0.04, PLE 0.05, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, AME-PME 0.04, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (9:5). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.39 long, 0.36 wide. Labium 0.14 wide. Leg measurements:

I 1.63 (0.46, 0.18, 0.38, 0.30, 0.31), II 1.49 (0.40, 0.18, 0.33, 0.29, 0.29), III 1.35 (0.36, 0.17, 0.29, 0.26, 0.27), IV lost. Leg I/c 2.72. Fem. I/c 0.77. Tib. I/c 0.63. Met. I/c 0.50. Pat. I+tib. I/c 0.93. Met. I/tar. I 0.97. Chaetotaxy 2-2-2- (lost). Tm 1 0.39, Tm IV absent. Abdomen dirty yellow, and 0.90 long, 0.54 wide. Epigynum: ventral plate broad and blunt, two layered, and protruded posteriorly; scape small; internal genitalia with a pair of spermathecae and copulatory ducts (Fig. 17E-G).
Habitat. Mixed forest.
World Distribution. Korea (Jeollabuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

***Collis silvaticus* n. sp.**
산골애접시거미 (신칭) (Figs. 6Q, 17H-K)

Material examined. Holotype: ♂, mixed forest (38°12′54″N, 128°26′19″E, alt. 779 m), Toseong-myeon, Goseong-gun, Gangwon-do, 29 July 2014, B. K. Seo.
Etymology. The specific name is a Latin adjective "*silvaticus*" (of the woods), referring to the habitat of the type specimen.
Diagnosis. The new species is very similar to *C. pusillus* n. sp. in the general appearance and male palp structure, but different from the latter by the detailed shape of paracymbium, the lamella characteristica, and the radix tip in prolateral view (Fig. 17H-K).
Description. Male (holotype). Total length 1.34. Habitus as in Figure 6Q. Carapace yellow, and 0.74 long, 0.64 wide. Clypeus height 2.3 times of diameter of AME. AER 0.20, PER 0.22. AER recurved and PER straight in dorsal view. AME 0.04, ALE 0.05, PME 0.05, PLE 0.05, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.02, AME-PME 0.04, and ALE-PLE 0.01. Median ocular quadrangle, height = posterior side > anterior side (9:6). Chelicera with six promarginal and five retromarginal teeth. Sternum 0.43 long, 0.33 wide. Labium 0.12 wide. Leg measurements: I 1.82 (0.52, 0.17, 0.47, 0.35, 0.31), II 1.64 (0.46, 0.17, 0.38, 0.33, 0.30), III 1.41 (0.39, 0.17, 0.29, 0.30, 0.26), IV 1.87 (0.53, 0.17, 0.47, 0.40, 0.30). Leg I/c 2.80. Fem. I/c 0.80. Tib. I/c 0.72. Met. I/c 0.54. Pat. I+tib. I/c 0.98. Met. I/tar. I 1.13. Met. IV/tar. IV 1.33. Chaetotaxy 2-2-2-1. Tm 1 0.37, Tm IV absent. Abdomen oval and dirty yellow, and 0.73 long, 0.53 wide. Palp (Fig. 17H-K): paracymbium base with two blunt processes; reverse triangular lamella characteristica with a pointed dorsal process; terminal apophysis membranous and chitinized, divided two part; embolus curved, very long and slim; distal suprategular apophysis bifurcate.
Habitat. Mixed forest.
World Distribution. Korea (Gangwon-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Doenitzius* Oi, 1960 땅접시거미속

***Doenitzius minutus* n. sp.**
작은땅접시거미 (신칭) (Figs. 6R, 18A-B, E-F)

Material examined. Holotype: ♀, mixed forest (37°44′28″N, 128°35′05″E, alt. 693 m), Jinbu-myeon, Pyeongchang-gun, Gangwon-do, 24 September 2009, S. Y. Kim.
Etymology. The specific name is a Latin adjective "*minutus*" (small), referring to the size of type specimen.
Diagnosis. The new species is very similar to *D. pruvus* Oi, 1960 in the epigynum and internal genitalia, but different from the latter by the size of carapace, the ventral spination of female femur, the length of epigynum and copulatory duct of internal genitalia (Fig. 18A-H).
Description. Female (holotype). Total length 1.53. Habitus as in Figure 6R. Carapace dirty yellow, 0.80 long, 0.63 wide. Clypeus height 2 times of diameter of AME. AER 0.23, PER 0.26. AER recurved and PER procurved in dorsal view. AME 0.04, ALE 0.08, PME 0.07, PLE 0.05, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.03, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, height = posterior side > anterior side (12:6). Chelicera with three promarginal and four retromarginal teeth. Sternum 0.47 long, 0.48 wide. Labium 0.09 wide. Leg measurements: I 2.65 (0.70, 0.26, 0.64, 0.53, 0.52), II 2.49 (0.65, 0.25, 0.56, 0.52, 0.51), III 2.21 (0.61, 0.23, 0.48, 0.46, 0.43), IV 2.97 (0.81, 0.25, 0.77, 0.62, 0.52). Leg I/c 3.31. Fem. I/c 0.88. Tib. I/c 0.80. Met. I/c 0.66. Pat. I+tib. I/c 1.13. Met. I/tar. I 1.02. Met. IV/tar. IV 1.19. Chaetotaxy 2-2-2-2. Tm 1 0.25, Tm IV absent. Leg spination pattern: Femur; I p0-0-1, v0-0-1; II-IV v0-0-1. Tibia; I d1-1, p0-1, r0-1; II d1-1, r0-1; III-IV d1-1, p0-0-0-1, r0-0-0-1. Metatarsus; I-IV d0-1-0. Abdomen oval and dirty yellow, and 0.93 long, 0.60 wide. Epigynum: ventral plate elongated triangular; internal genitalia with a pair of spermathecae and curved copulatory ducts (Fig. 18A-B, E-F).
Habitat. Mixed forest.
World Distribution. Korea (Gangwon-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Nippononeta* Eskov, 1992 일본접시거미속

***Nippononeta bituberculata* n. sp.**
두혹접시거미 (신칭) (Figs. 6S-T, 18I-O)

Material examined. Holotype: ♂, mixed forest (38°10′04″N, 128°22′17″E, alt. 543 m), Buk-myeon, Inje-gun, Gangwon-do, 19 July 2010, J. C. Lim. Paratypes: 10♂♂,

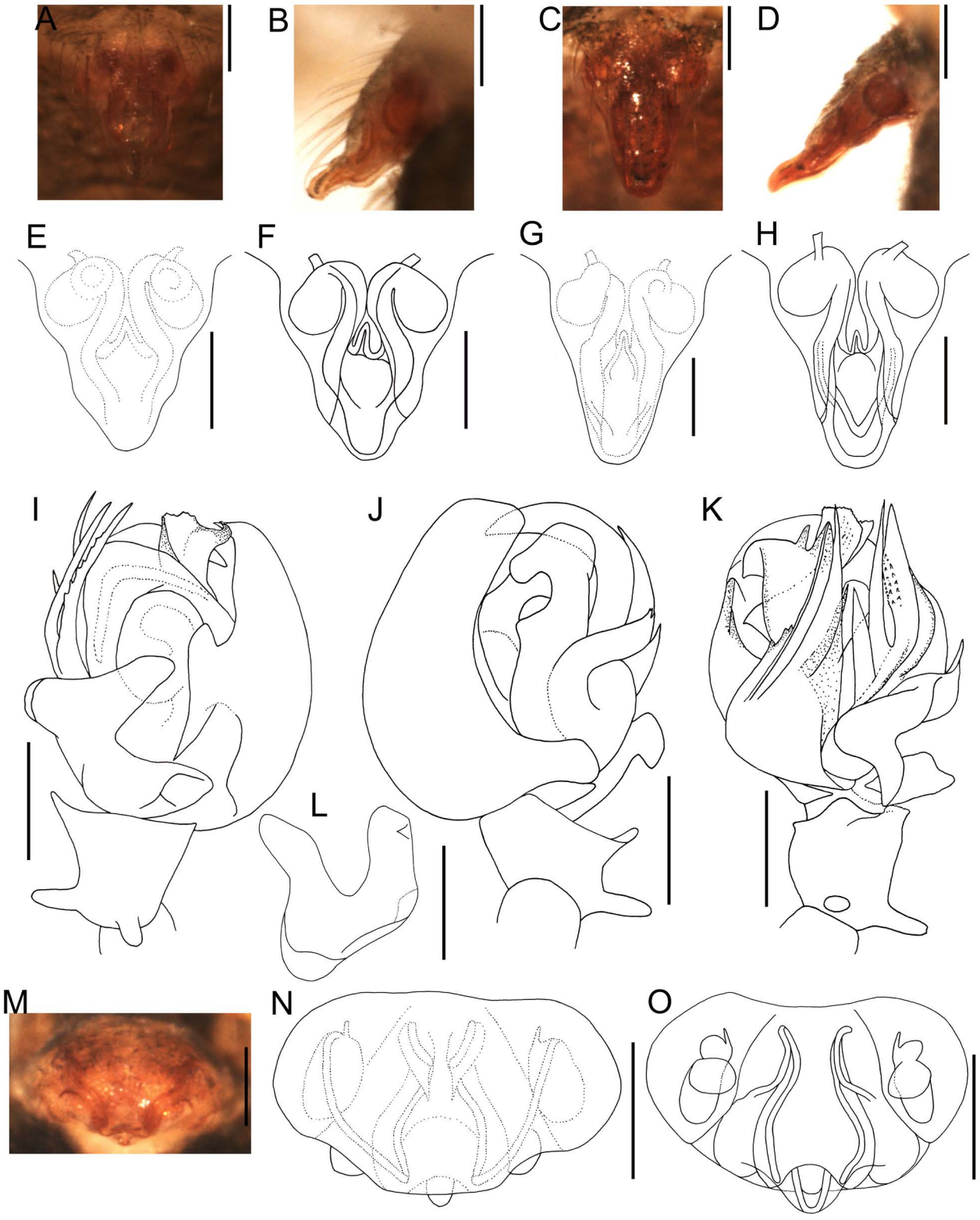


Fig. 18. *Doenitzius minutus* n. sp. (A-B, E-F), *Doenitzius pruvus* Oi, 1960 (C-D, G-H) and *Nippononeta bituberculata* n. sp. (I-O): A, C, E, G, M, N - epigynum, ventral view; B, D - idem, lateral view; F, H, O - internal genitalia; I - male left palp, retrolateral view; J - idem, prolateral view; K -idem, ventral view; L - paracymbium. Scale bars: 0.1 mm.

2우우, same data as holotype.
Etymology. The specific name is a Latin adjective "*bituberculata*" (two-tuberculate), referring to having two tubercles on the male palpal tibia.
Diagnosis. The new species resembles *N. nodosa* (Oi, 1960) in the general appearance and the tibial apophysis of male palp, but different from the latter by the number of tibial apophysis and the detailed structure of male palp (Fig. 18I-L).
Description. Male (holotype). Total length 1.34. Habitus as in Figure 6S. Carapace dirty brown, 0.70 long, 0.56 wide. Clypeus height 2.7 times of diameter of AME. AER 0.25, PER 0.26. AER recurved and PER straight in dorsal view. AME 0.04, ALE 0.07, PME 0.07, PLE 0.05, AME-AME 0.01, AME-ALE 0.02, PME-PME 0.03, PME-PLE 0.05, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, height = posterior side > anterior side (3:2). Chelicera with four teeth on each margin. Sternum 0.40 long, 0.39 wide. Labium 0.12 wide. Leg measurements: I 2.57 (0.66, 0.20, 0.65, 0.60, 0.46), II 2.32 (0.61, 0.20, 0.57, 0.52, 0.42), III 1.92 (0.55, 0.18, 0.43, 0.43, 0.33), IV 2.53 (0.70, 0.20, 0.65, 0.59, 0.39). Leg I/c 3.67. Fem. I/c 0.94. Tib. I/c 0.93. Met. I/c 0.86. Pat. I + tib. I/c 1.21. Met. I/tar. I 1.30. Met. IV/tar. IV 1.51. Chaetotaxy 2-2-2-2 (male paratype). Tm 1 0.24, Tm IV absent. Abdomen oval, and long, 0.58 wide; dorsum dirty brown anteriorly, dark brown posteriorly. Palp (Fig. 18I-L): tibia short, with two dorsal apophyses: paracymbium U-shaped, with a proximal hump and ventral pocket in lateral view; distal suprategular apophysis bifurcate; embolus curved with pointed embolus apex and embolus proper, without embolus thumb; Lamella characteristica divided into three branches; terminal apophysis also divided into three parts - one long pointed, another round membranous, and other small pointed.

Female (paratype). Total length 1.28. Habitus as in Figure 6T. Carapace 0.64 long, 0.52 wide. Clypeus height 2.7 times of diameter of AME. AER 0.25, PER 0.26. AME 0.04, ALE 0.07, PME 0.07, PLE 0.07, AME-AME 0.01, AME-ALE 0.02, PME-PME 0.03, PME-PLE 0.02, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, posterior side = height > anterior side (3:2). Chelicera with five promarginal and three retromarginal teeth. Sternum 0.39 long, 0.36 wide. Labium 0.13 wide. Leg measurements: I 2.34 (0.65, 0.20, 0.57, 0.49, 0.43), II 2.16 (0.60, 0.20, 0.51, 0.46, 0.39), III 1.78 (0.51, 0.18, 0.39, 0.39, 0.31), IV 2.36 (0.68, 0.20, 0.60, 0.52, 0.36). Leg I/c 3.66. Fem. I/c 1.02. Tib. I/c 0.89. Met. I/c 0.77. Pat. I + tib. I/c 1.20. Met. I/tar. I 1.14. Met. IV/tar. IV 1.44. Chaetotaxy 2-2-2-2. Tm 1 0.28, Tm IV absent. Abdomen 0.76 long, 0.50 wide. Epigynum: ventral plate broad; internal genitalia with a pair of spermathecae and long curved copulatory ducts (Fig. 18M-O).
Habitat. Mixed forest.
World Distribution. Korea (Gangwon-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

Family Theridiidae Sundevall, 1833 꼬마거미과
Genus *Phoroncidia* Westwood, 1835
혹부리꼬마거미속

***Phoroncidia altiventris* Yoshida, 1985**
남방꼬마거미 (신칭) (Fig. 19A-E)
Phoroncidia altiventris Yoshida, 1985: 8; Yoshida, 2009: 365.

Material examined. ♂, mixed forest (34°47′49″N, 128°28′40″E, alt. 82 m), Hansan-myeon, Tongyeong-si, Gyeongsangnam-do, 25 June 2005, B. K. Seo.
Diagnosis. This species is easily distinguished from its congeneric species by the shape of abdomen and male palpal structure (Fig. 19A-E).
Description. Male. Total length 1.96. Habitus as in Figures 19A-C. Carapace dirty brown, 1.04 long, 0.80 wide. Clypeus height 1.6 times of diameter of AME. AER 0.52, PER 0.53. AER and PER recurved in dorsal view. AME 0.10, ALE 0.07, PME 0.09, PLE 0.08, AME-AME 0.10, AME-ALE 0.10, PME-PME 0.10, PME-PLE 0.18, AME-PME 0.08, and ALE-PLE 0.01. Median ocular quadrangle, anterior side > height = posterior side (21:20). Chelicera with one retromarginal and three promarginal teeth. Sternum 0.49 long, 0.53 wide. Labium 0.18 wide. Leg measurements: I 2.60 (0.92, 0.35, 0.57, 0.40, 0.36), II 2.42 (0.83, 0.34, 0.52, 0.39, 0.34), III 1.84 (0.60, 0.27, 0.36, 0.30, 0.31), IV 2.21 (0.73, 0.31, 0.47, 0.36, 0.34). Leg I/c 2.50. Fem. I/c 0.88. Tib. I/c 0.55. Met. I/c 0.38. Pat. I + tib. I/c 0.88. Met. I/tar. I 1.11. Met. IV/tar. IV 1.06. Abdomen flat with many protuberances, and 1.08 long, 1.38 wide. Palp (Fig. 19D-E): cymbium with a small curved proximal process retrolaterally; subtegulum well developed; tegular apophysis with stout pointed tip; median apophysis short and pointed; long curved suprategula apophysis in touch with embolus; conductor membranous.
Habitat. Mixed forest.
World Distribution. Korea (Gyeongsangnam-do), Japan.
Deposition. NIBR.
Identifier. Bo Keun Seo.

Genus *Theridula* Emerton, 1882 붓꼬마거미속 (신칭)

***Theridula iriomotensis* Yoshida, 2001**
붓꼬마거미 (신칭) (Fig. 19F-J)
Theridula iriomotensis Yoshida, 2001: 177; Yoshida, 2009: 384.

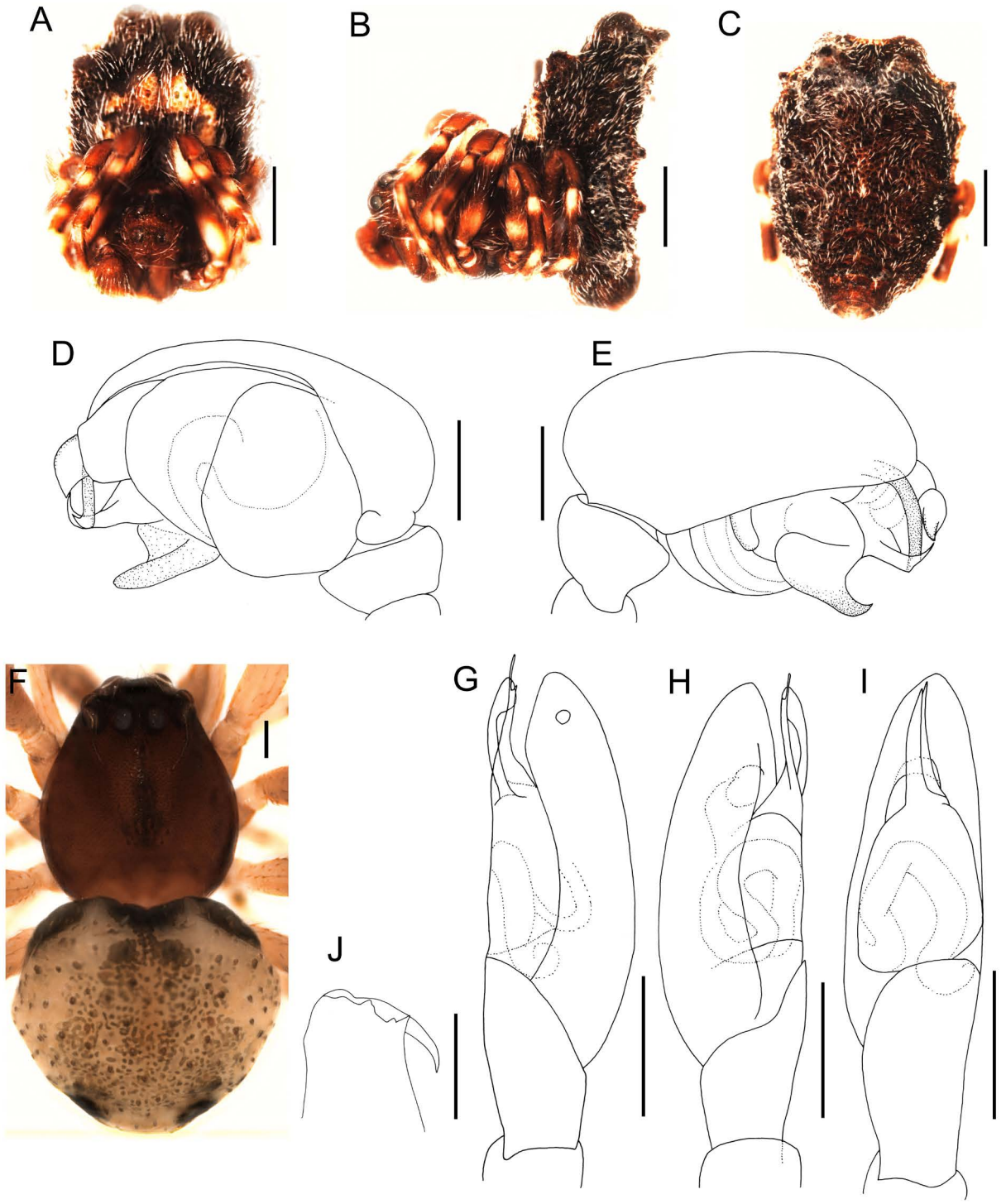


Fig. 19. *Phoroncidia altiventris* Yoshida, 1985 (A-E) and *Theridula iriomotensis* Yoshida, 2001 (F-J): A - male, frontal view; B - idem, lateral view; C - posterior view; D, G - male left palp, retrolateral view; E, H - idem, prolateral view; F - male habitus; I - idem, ventral view; J - promarginal teeth of chalicera. Scale bars: 0.5 mm (A-C), 0.1 mm (D-J).

Material examined. ♂, mixed forest (36°23′51″N, 129° 08′41″E, alt. 276 m), Budong-myeon, Cheongsong-gun, Gyeongsangbuk-do, 6 October 2009, S. Y. Kim.

Diagnosis. This species is easily distinguished from its congeneric species by the abdomen having many black flecks and the male palp having straight and simple em-

bolus (Fig. 19F-I).

Description. Male. Total length 1.30. Habitus as in Figure 19F. Carapace reddish brown, and 0.74 long, 0.64 wide. Clypeus height 1.7 times of diameter of AME. AER 0.33, PER 0.44. AER recurved and PER straight in dorsal view. AME 0.08, ALE 0.08, PME 0.07, PLE 0.08, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.04, PME-PLE 0.04, AME-PME 0.05, and ALE-PLE contiguous. Median ocular quadrangle, anterior side > height > posterior side (16:15:13). Chelicera with two promarginal teeth (Fig. 19J). Sternum 0.38 long, 0.43 wide. Labium 0.16 wide. Leg measurements: I 2.23 (0.72, 0.26, 0.49, 0.47, 0.29), II 1.89 (0.59, 0.23, 0.39, 0.39, 0.29), III 1.45 (0.44, 0.18, 0.23, 0.35, 0.25), IV 1.59 (0.48, 0.20, 0.31, 0.33, 0.27). Leg I/c 3.10. Fem. I/c 1.00. Tib. I/c 0.68. Met. I/c 0.65. Pat. I + tib. I/c 1.04. Met. I/tar. I 1.62. Met. IV/tar. IV 1.22. Abdomen heart shaped and yellow with an anterior transverse dark stain and two posterior dark stains, covered with many black flecks, and 0.75 long, 0.78 wide. Palp (Fig. 19G-I): bulb simple with elongate embolus and membranous elongate conductor.

Habitat. Mixed forest.

World Distribution. Korea (Gyeongsangbuk-do), Japan.

Deposition. NIBR.

Identifier. Bo Keun Seo.

Family Phrurolithidae Banks, 1892 도사거미과
Genus *Phrurolithus* C.L. Koch, 1839 도사거미속

***Phrurolithus pennatoides* n. sp.**
날개도사거미 (신칭) (Fig. 20A-H)

Material examined. Holotype: ♂, mixed forest (37°30′30″N, 130°48′42″E, alt. 116 m), Seo-myeon, Ulleung-gun, Gyeongsangbuk-do, 25 August 2006, B. K. Seo. Paratypes: 1♀, chestnut forest (*Fagus engleriana*) (37°30′57″N, 130°52′11″E, alt. 385 m), Buk-myeon, Ulleung-gun, Gyeongsangbuk-do, 24 August 2006, B. K. Seo.

Etymology. The specific name is a Latin adjective "*pennatus*" (winged) having the suffix "*-oides*" (resembling).

Diagnosis. The new species is very similar to *P. pennatus* Yaginuma, 1967 in the shape of male palp, but can be easily distinguished from the latter by the retrolateral tibial apophysis and copulatory ducts of female genitalia (Fig. 20D-E, H).

Description. Male (holotype). Total length 3.15. Habitus as in Figure 20A. Carapace brown, 1.40 long, 1.15 wide. Clypeus height 1.7 times of diameter of AME. AER 0.39, PER 0.42; AER recurved and PER straight in dorsal view. AME 0.08, ALE 0.10, PME 0.09, PLE 0.09, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.05, PME-PLE 0.04, AME-PME 0.07, and ALE-PLE 0.05. Median ocular quadrangle, height > posterior side > anterior side (19:17:16). Chelicera with two teeth on each margin. Sternum 0.83 long, 0.69 wide. Labium 0.17 long, 0.22 wide. Leg measurements: I 5.84 (1.50, 0.50, 1.54, 1.36, 0.94), II 4.72 (1.20, 0.44, 1.14, 1.08, 0.86), III 4.22 (1.14, 0.42, 0.88, 1.08, 0.70), IV 6.36 (1.72, 0.52, 1.50, 1.68, 0.94). Leg I/c 4.17. Fem. I/c 1.07. Tib. I/c 1.10. Met. I/c 0.97. Pat. I + tib. I/c 1.46. Met. I/tar. I 1.45. Met. IV/tar. IV 1.79. Leg spination pattern: Femur; I d1-1, p1-1-1-1-0-0; II-IV d1-0. Tibia; I v2-2-2-2-2-2-2; II v2-2-2-2-2-2. Metatarsus; I v2-2-2-2-2; II v1-2-2-2-1. Abdomen elongate and reddish brown with yellow margin except anterior margin, and 1.80 long, 0.95 wide. Palp (Fig. 20C-E): tibia with a curved retrolateral apophysis; embolus very short.

Female (paratype). Total length 4.45. Habitus as in Figure 20B. Carapace 1.65 long, 1.35 wide. Clypeus height same as diameter of AME. AER 0.46, PER 0.48. AME 0.12, ALE 0.13, PME 0.09, PLE 0.12, AME-AME 0.04, AME-ALE contiguous, PME-PME 0.05, PME-PLE 0.05, AME-PME 0.09, and ALE-PLE 0.04. Median ocular quadrangle, height > anterior side > posterior side (11:10:9). Chelicera with three promarginal and two retromarginal teeth. Sternum 1.00 long, 0.82 wide. Labium 0.17 long, 0.29 wide. Leg measurements: I 6.56 (1.62, 0.58, 1.76, 1.48, 1.12), II 5.34 (1.36, 0.54, 1.30, 1.18, 0.96), III 4.66 (1.22, 0.50, 1.02, 1.18, 0.74), IV 7.14 (1.92, 0.60, 1.68, 1.96, 0.98). Leg I/c 3.98. Fem. I/c 0.98. Tib. I/c 1.07. Met. I/c 0.90. Pat. I + tib. I/c 1.42. Met. I/tar. I 1.32. Met. IV/tar. IV 2.00. Leg spination pattern: Femur; I d1-1, p1-1-1-1-0-0; II d1-1; III-IV d1-0. Tibia; I v2-2-2-2-2-2-2-2; II v2-2-2-2-2-2-2; IV v0-0-0-0-2. Metatarsus; I v2-2-2-2-5; II v1-2-2-2-2. Abdomen dirty yellow with anterior medial patch chitinized, and 2.75 long, 1.95 wide. Epigynum: ventral plate with a pair of copulatory openings anteriorly; internal genitalia with a pair of spermathecae, thin copulatory ducts, and short fertilization ducts (Fig. 20F-H).

Habitat. Mixed forest.

World Distribution. Korea (Ulleung Island, Gyeongsangbuk-do).

Deposition. NIBR.

Identifier. Bo Keun Seo.

Family Clubionidae Wagner, 1887 염낭거미과
Genus *Clubiona* Latreille, 1804 염낭거미속

***Clubiona parva* Seo, nom. n.** 한려염낭거미
Clubiona minuta Seo, 2009 (preoccupied by *C. minuta* Nicolet, 1849).

Description. See Seo (2009).

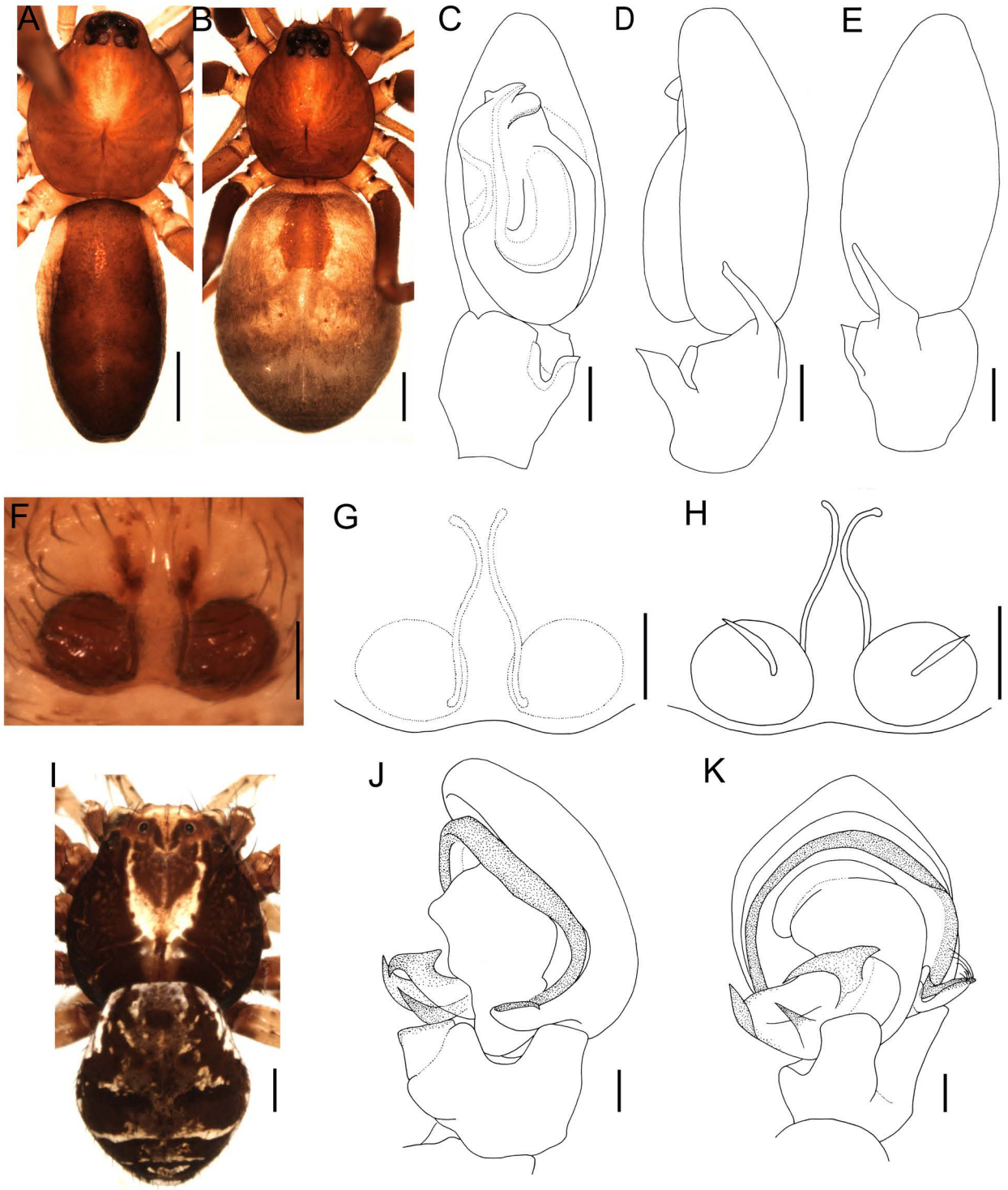


Fig. 20. *Phrurolithus pennatoides* n. sp. (A-H) and *Xysticus audax* (Schrank, 1803) (I-K): A, I - male habitus; B - female habitus; C, K - male left palp, ventral view; D, J - idem, retrolateral view; E - idem, dorsal view; F-G - epigynum; H - internal genitalia. Scale bars: 0.5 mm (A-C), 0.1 mm (D-J).

Family Thomisidae Sundevall, 1833 게거미과
Genus *Xysticus* C.L. Koch, 1835 참게거미속

***Xysticus audax* (Schrank, 1803)**
숲참게거미 (신칭) (Fig. 20I-K)
Aranea audax Schrank, 1803: 235

Xysticus audax Ono, 1988: 117; Ono, 2009: 517.

Material examined. ♂, mixed forest (36°45′41″N, 129°17′25″E, alt. 545 m), Subi-myeon, Yeongyang-gun, Gyeongsangbuk-do, 23 May 2015, B. K. Seo.
Diagnosis. This species is very similar to *X. cristatus* (Clerck, 1757) in the general appearance, but can be easily distinguished from the latter by the shape of embolic tip male palp (Fig. 20J-K).
Description. Male. Total length 4.60. Habitus as in Figure 20I. Carapace dark brown with white chevron mark, 2.55 long, 2.30 wide. Clypeus height 1.3 times of diameter of AME. AER 1.54, PER 1.56. Both eye row recurved in dorsal view. AME 0.16, ALE 0.30, PME 0.20, PLE 0.20, AME-AME 0.34, AME-ALE 0.16, PME-PME 0.36, PME-PLE 0.36, AME-PME 0.26, and ALE-PLE 0.26. Median ocular quadrangle, posterior side > anterior side = height (38:33). Both margins of chelicera without tooth. Sternum 1.26 long, 1.04 wide. Labium 0.40 long, 0.32 wide. Leg measurements: I 8.95 (2.65, 1.20, 1.95, 2.00, 1.15), II 8.80 (2.65, 1.15, 1.90, 1.95, 1.15), III 5.60 (1.85, 0.85, 1.10, 1.00, 0.80), IV 5.95 (1.90, 0.80, 1.20, 1.20, 0.85). Leg I/c 3.51. Fem. I/c 1.04. Tib. I/c 0.76. Met. I/c 0.78. Pat. I + tib. I/c 1.24. Met. I/tar. I 1.74. Met. IV/tar. IV 1.41. Abdomen rhombus-like, dark brown, and 2.65 long, 2.05 wide; dorsum with a pair of white lines on anterior margins and three transverse white lines posteriorly. Palp (Fig. 20J-K): tibia with blunt ventral and retrolateral apophyses; three tegular apophysis well developed; embolus circular with tip curved retrolaterally.
Habitat. Mixed forest.
World Distribution. Palearctic region (Korea; Gyeongsangbuk-do).
Deposition. NIBR.
Identifier. Bo Keun Seo.

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