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Description of Two Unrecorded Spiders (Arachnida: Araneae) from Korea

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Abstract

Two newly recorded spiders, *Cheiracanthium lascivum* Karsch, 1879 of Eutichuridae and *Gnaphosa kamurai* Ovtsharenko, Platnick and Song, 1992 of Gnaphosidae are described and illustrated from Korea.

Key Words: *Cheiracanthium lascivum*, *Gnaphosa kamurai*, Eutichuridae, Gnaphosidae, Korea

Introduction

The spider genus *Cheiracanthium* of Miturgidae in Korea comprises 7 species to date (Namkung et al. 2009); *C. brevispinum* Song, Feng and Shang, 1982, *C. erraticum* (Walckenaer 1802), *C. japonicum* Bösenberg and Strand, 1906, *C. taegense* Paik, 1990, *C. uncinatum* Paik, 1985, *C. unicum* Bösenberg and Strand, 1906 and *C. zhejiangense* Hu and Song, 1982. Recently, the genus was transferred from the Miturgidae to the Eutichuridae by Ramírez (2014). One male of *C. lascivum* Karsch, 1879 was collected by using sweep net during the intensive survey of spider fauna around the southwest islands. This species is formerly known to be found in Japan and China. The spider genus *Gnaphosa* of Gnaphosidae in Korea comprises 7 species; *G. hastata* Fox, 1937, *G. kansuensis* Schenkel, 1936, *G. kompirensis* Bösenberg and Strand, 1906, *G. licenti* Schenkel, 1953, *G. muscorum* (L. Koch 1866), *G. potanini* Simon, 1895 and *G. sinensis* Simon, 1880. This species is formerly only known to be found in Japan. One female of *G. kamurai* was

collected in soybean field by using pitfall trap during the periodical survey of Korean spider fauna around agricultural landscape. In the present paper, *C. lascivum* and *G. kamurai* are described with illustrations of taxonomic characters.

Materials and Methods

The external morphology of *C. lascivum* and *G. kamurai* were examined and the taxonomic characters of each species were illustrated using a stereoscopic dissecting microscope (Olympus SZ60). Measurements were made with an ocular micrometer and are recorded in millimeters. Leg measurements are given as “leg number, total length (femur, patella+tibia, metatarsus and tarsus).” Pedipalp measurements are listed as “Total length (femur, patella+tibia and tarsus).” The following abbreviations are used in the description: AME, anterior median eye; AL E, anterior lateral eye; PME, posterior median eye; PL E, posterior lateral eye; AER, anterior eye row; PER, posterior eye row; d,

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Fig. 1. *Cheiracanthium lascivum* Karsch, 1879 (A. male body; specimen, B. eye region, C. chelicera; dorsal view, D. chelicera; retrolateral view, E. sternum, F. male palp; prolateral view, G. male palp; inner view).

dorsal surface, p, prolateral surface, r, retrolateral surface and v, ventral surface in leg spiniformation. Specimens examined in this study are lodged in the collection of National Institute of Biological Resources (NIBR), Korea.

Taxonomic Accounts

Order Araneae Clerck, 1757

Family Eutichuridae Lehtinen, 1967

Genus *Cheiracanthium* C. L. Koch, 1839

Cheiracanthium lascivum Karsch, 1879 큰머리장수염
남거미(신칭) (Fig. 1)

Cheiracanthium lascivum Karsch, 1879: 91, Bösenberg and Strand, 1906: 287, Saito, 1934a: 329, 1934b: 291,

1959: 141, Yaginuma, 1966a: 38, 1966b: 36, 1967: 88, 1971: 112, 1986: 177, Paik and Namkung, 1979: 83 (male and female misidentified per Kim and Lee, 2007: 239), Hu, 1984: 298, Chikuni, 1989: 122, Barrion and Litsinger, 1994: 297, Ono, 2009: 465.

Cheiracanthium digitivorum Dönitz and Strand, in Bösenberg and Strand, 1906: 387.

Cheiracanthium gratiosum Saito, 1939: 28, 1959: 141, Yaginuma, 1960: 112.

Measurements

Male: Body length 8.31, Carapace length 4.14 width 3.13, Head width 2.04, Abdomen length 4.17 width 2.32, Chelicera length 1.72 width 0.18, Endite length 1.15 width

0.65, Labium length 0.70 width 0.67, Sternum length 1.85 width 1.63, AER 1.32, PER 1.55, Legs : I 16.95 (4.25, 5.95, 4.80, 1.95), II 13.13 (3.82, 4.80, 3.45, 1.06), III 8.36 (2.20, 3.02, 2.23, 0.91), IV 14.43 (4.28, 4.95, 4.25, 0.95), Pedipalp 4.77 (1.80, 1.57, -, 1.40).

Description

Male: Carapace ovoid, head region and anterior part of thoracic region yellowish brown, posterior part of thoracic region pale yellowish brown, anterior end of carapace dark blackish brown, margin of thoracic region surrounded with blackish brown line. Fovea blackish brown, spiniform, cervical and radial grooves blackish brown, distinct (Fig. 1A). Eight eyes small, encircled with black, length of AER slightly shorter than PER, both eye rows slightly retro-curved, eye region slightly infusate (Fig. 1B). Chelicerae dark blackish brown, long, stout and well developed, boss on dorsum lighter (Fig. 1C), waisted at middle, 3 contiguous teeth at promargin and 4 small teeth at retromargin (Fig. 1D). Endite light blackish brown, lighter at anterior and posterior ends. Labium light blackish brown, margin darker. Sternum yellowish brown, shield shaped, margin surrounded with blackish brown line (Fig. 1E). Legs pale

yellowish white, coxae and trochanters of legs I and II yellowish brown, leg spiniform; I (femur 1-1-2p, tibia 2-1v, metatarsus 1p, 1r), II (femur 1-1p, tibia 1p, 2-2v, matatarsus 1p, 1r, 2v), III (femur 2-2d, tibia 1-1p, 1-1r, 2v, metatarsus 1-1-2p, 1-1-2r, 2-1v), IV (femur 1r, tibia 2p, 1r, metatarsus 1-1-1-1-1p, 1-1-1-1r, 1-1v), leg formula 1-4-2-3. Abdomen pale yellowish white, cardiac pattern vague, 2 pairs of muscle impressions distinct (Fig. 1A). Spinnerets light yellowish brown, cylindrical, tapered distally, anterior spinnerets contiguous, posterior spinnerets slightly separated. Palp pale yellowish white, cymbium yellowish brown, paracymbium long filiform with pointed tip, tegulum round, median apophysis long filiform, tibial retrolateral apophysis digitiform with blunt tip (Fig. 1F, G).

Specimen examined

1 male, 07-VI-1993, Oerarodo, Goheung-gun, Jeollanam-do, ST Kim leg.

Ecological remarks

This species collected with sweep net on the shrubs in the hillocks.

Fig. 2. *Gnaphosa kamurai* Ovtsharenko, Platnick and Song, 1992 (A. female body; specimen, B. eye region, C. chelicera; dorsal view, D. sternum, E. female epigynum).

Distribution

Korea (newly recorded), China, Japan

Family Gnaphosidae Pocock, 1898

Genus *Gnaphosa* Latreille, 1804

Gnaphosa kamurai Ovtsharenko, Platnick and Song, 1992 가무라넓적니거미(신칭) (Fig. 2)

Gnaphosa alberti Kamura, 1988: 7.

Gnaphosa kamurai Ovtsharenko, Platnick and Song, 1992: 33, Kamura, 2009: 488.

Measurements

Female: Body length 10.80, Carapace length 4.25 width 3.12, Head width 2.15, Abdomen length 6.55 width 3.54, Chelicera length 1.35 width 0.75, Endite length 1.29 width 0.52, Labium length 0.90 width 0.57, Sternum length 2.20 width 1.87, AER 0.85, PER 1.08, Legs : I 10.26 (2.92, 4.05, 1.84, 1.45), II 9.90 (2.87, 3.55, 2.00, 1.48), III 8.50 (2.20, 2.95, 2.15, 1.20), IV 12.61 (3.20, 4.15, 3.55, 1.71), Pedipalp 3.72 (1.40, 1.15, -, 1.17).

Description

Female: Caparace blackish brown, fovea black and spiniform, cervical and radial grooves dark and distinct, covered with black hairs, margin surrounded with black line (Fig. 2A). Eight eyes, posterior lateral eyes largest, eye region infusate, length of AER shorter than PER, AER slightly recurved and PER almost straight (Fig. 2B). Chelicerae dark blackish brown, 2 teeth on promargin, and one denticle and serrated carina on retromargin, boss distinct at basal part (Fig. 2C), fang short. Endite dark blackish brown. Labium dark blackish brown, interiomedian part dark, anterior and posteriolateral parts light. Sternum reddish brown, covered with black hairs, long shield shaped, margin black and depressed (Fig. 2D). Legs light blackish brown, covered densely with black hairs, venter light, leg spiniform; I (femur 1-2-1d, tibia 1-1v, metatarsus 2v), II (femur 1-2-1d, tibia 2v, metatarsus 2v), III (femur 2-3-2d, tibia 2-1-2p, 1-1r, 2-2-2v, metatarsus 2-1p, 1-1-2r, 1v), IV (femur 1-3-2d, tibia 1-1-1p, 2-1-1r, 1-1v, metatarsus 1-2-1-1p, 1-1-1-1r, 1-1-1-2v), leg formula 4-1-2-3. Abdomen grayish brown and mottled, covered with blackish brown short hairs, 2 pairs of muscle impressions

distinct (Fig. 2A), venter with a pair of light stripes, epigastric plate yellowish brown. Spinnerets dull yellowish brown, cylindrical, anterior spinnerets long and thickest. Palp reddish brown. Female epigynum sclerotized, epigynal anterior hood reddish brown, narrow basally, atrium with wide septum, copulatory openings at middle of atrium (Fig. 2E).

Specimen examined

1 female, 03-VIII-2013, Yangdeokweon-ri, Hongcheon-gun, Gangwon-do, ST Kim and SY Lee leg.

Ecological remarks

This species, rather large Gnaphosid spider, collected with pitfall trap in the soybean fields.

Distribution

Korea (newly recorded), Japan

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