

A New Spider of the Genus *Matidia* (Araneae, Clubionidae) from Taiwan

Shyh-Hwang Chen^{1*}, Wen-Jean Huang^{1,2}

¹Department of Life Science, National Taiwan Normal University
Taipei, Taiwan

²Luyeh Junior High School
Taitung, Taiwan

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ABSTRACT

A new species of clubionid spider, *Matidia spatulata* sp. nov., is described from the low mountain areas of Taiwan. It can be distinguished from other congeners by having a coiled, ribbon-shaped embolus and a spatulate tibial apophysis widened distally and densely covered with fine denticles on its distal end. The female remains unknown. The genus *Matidia* is reported from Taiwan for the first time.

Key words: Araneae, Clubionidae, *Matidia*, new species, Taiwan

Introduction

Matidia Thorell, 1878 comprising of 13 species (Platnick 2006), is a small genus of the family Clubionidae that occurs mainly in South and Southeast Asia, from West Iran to the Philippines and the New Guinea (Barrion and Litsinger, 1995; Deeleman-Reinhold, 2001). The *Matidia* spiders are nocturnal, leaf-dwellers having a long slender, greenish body and searching for small arthropods for food at night. The genus *Matidia* was recently reviewed by Deeleman-Reinhold (2001) and can be distinguished from other genera of the Clubionidae in having the combination of following characteristics: leg I being the longest; head narrow, about half of the carapace width and both sides sinuated; teeth on the promarginal fang groove shifting distal-wards so that the distal-most tooth of the promargin is more closer to the fang-base than that of the retromargin one; abdomen thin and elongated; male with a ribbon-shaped embolus; female epigyne with a central depression, short copulatory ducts, and often with hyaline bursa.

Chen (1996) listed 15 species of clubionid spiders from Taiwan, including *Cheiracanthium lascivum* Karsch, 1879 and 14 species of the genus *Clubiona* Latreille, 1804. However, *Cheiracanthium lascivum* in addition to four other

species of *Cheiracanthium* from Taiwan had been transferred to the family Miturgidae (Chen and Huang, 2004; Chen *et al.*, 2006) according to Ramírez *et al.* (1997). Thus, only 14 species belonging to the genus *Clubiona* of the family Clubionidae are known from Taiwan. No species of the genus *Matidia* have ever been recorded from Taiwan and its adjacent areas, Japan, Korea, and the Mainland China previously (Chen, 1996; Namkung, 2003; Platnick, 2006; Song *et al.*, 1999; Tanikawa, 2006). Recently, we examined all preserved clubionid specimens obtained as early as in 1983 from various localities of Taiwan. Among hundreds of clubionid spiders, two male specimens belonging to an un-described species of the genus *Matidia* were discovered. This new species undoubtedly is rare in Taiwan. In this paper, the new species is described and the genus *Matidia* is reported from Taiwan for the first time.

Materials and Methods

Spiders were obtained by searching the vegetation for wandering individuals at night along the trails or roadsides from various localities of Taiwan, especially in the low and moderate altitude mountain areas. Type specimens were preserved in 70% ethanol and deposited in the Arachnological

*Corresponding author: Shyh-Hwang Chen; FAX: 886-2-29312904; E-mail: alchen@ntnu.edu.tw

collection of the Department of Life Science, National Taiwan Normal University, Taiwan (NTNUB-Ar). Alcohol-preserved specimens were examined and measured under a stereomicroscope (Leica M3Z) using an ocular micrometer with up to 80x magnification. Figures were drawn with the aid of a drawing tube attached to the stereomicroscope (Leica M3Z). All measurements were in mm. Measurements of legs are shown as: total length (femur, patella and tibia, metatarsus, tarsus). Abbreviations used in this paper are: AER, anterior eye row; ALE, anterior lateral eye; AME, anterior median eye; AW, anterior width of MOA, distance between lateral borders of AMEs; MOA, median ocular area; MOA-AW / PW, ratio of AW to PW; MOA-L / AW, ratio of length of MOA to AW; PER, posterior eye row; PLE, posterior lateral eye; PME, posterior median eye; PW, posterior width of MOA, distance between lateral borders of PMEs.

Results and Discussion

Matidia spatulata Chen et Huang, sp. nov.
(Fig. 1 A-C)

Type series. Holotype: male, Chilan, Tatung, Ilan County, 500 m, coll. Shyh-Hwang Chen, 31 Mar. 1997 (NTNUB-Ar 7386). **Paratype:** 1 male, Kuantzing, Paiho, Tainan County, 350 m, coll. Shyh-Hwang Chen, 14 Mar. 2004 (NTNUB-Ar 21666).

Diagnosis. *Matidia spatulata* most resembles *M. simia* from Celebes (Sulawesi), Indonesia but can be distinguished from the latter (characters in parentheses) by having a coiled embolus (not completely coiled) and a spatulate tibial apophysis widened distally (parallel on both sides and rounded apex) on the male palp.

Description. Male (holotype). Body length 5.54. Carapace length 2.16, width 1.58. Abdomen length 3.38, width 0.92. Carapace greenish yellow, longer than wide, somewhat flattened. Thoracic groove short and shallow. Eyes in two parallel transverse rows, PER wider than AER. Diameters of AME 0.09, ALE 0.12, PME 0.10, PLE 0.12. Length of MOA slightly longer than AW (ratio of MOA-L / AW 1.15), PW longer than AW (ratio of MOA-AW / PW 0.56). Height of clypeus 0.05. Chelicerae armed with three promarginal and two

retromarginal teeth; the distal-most promarginal tooth is closer to the fang-base than that of the retromarginal one (Figure 1A). Labium greenish yellow, longer than wide. Palpus greenish yellow, with a coiled, ribbon-shaped embolus (Figure 1B), and a spatulate tibial apophysis widened distally and densely covered with fine denticles on its distal end (Figure 1C). Leg measurements: I 11.89 (3.09, 4.70, 2.72, 1.38), II 10.04 (2.69, 4.00, 2.19, 1.16), III 6.06 (1.72, 2.09, 1.59, 0.66), IV 10.29 (3.03, 3.25, 3.13, 0.88). Leg formula 1-4-2-3. Abdomen greenish yellow, with a dark green patch between book lungs on venter.

Female. Unknown.

Variations. Measurements including holotype given for 2 males. Body length 5.54 - 5.67. Carapace length 2.16 - 2.20, width 1.50 - 1.58, ratio of carapace length / width 1.37 - 1.47. Abdomen length 3.38 - 3.47, width 0.92 - 0.94. Diameters of AME 0.09 - 0.10, ALE 0.12, PME 0.10 - 0.12, PLE 0.12; ratio of MOA-L / AW 1.15, ratio of MOA-AW / PW 0.56.

Distribution. Taiwan.

Etymology. The specific name is derived from the spatula-shaped tibial apophysis on the male palp.

Remarks. *Matidia spatulata* occurs in the secondary forest of the low mountain areas at elevations below 500 m in Taiwan. Although the phenology of the new species is not clear, both specimens were obtained in March. It infers the breeding season of *M. spatulata* is probably in spring and in early summer.

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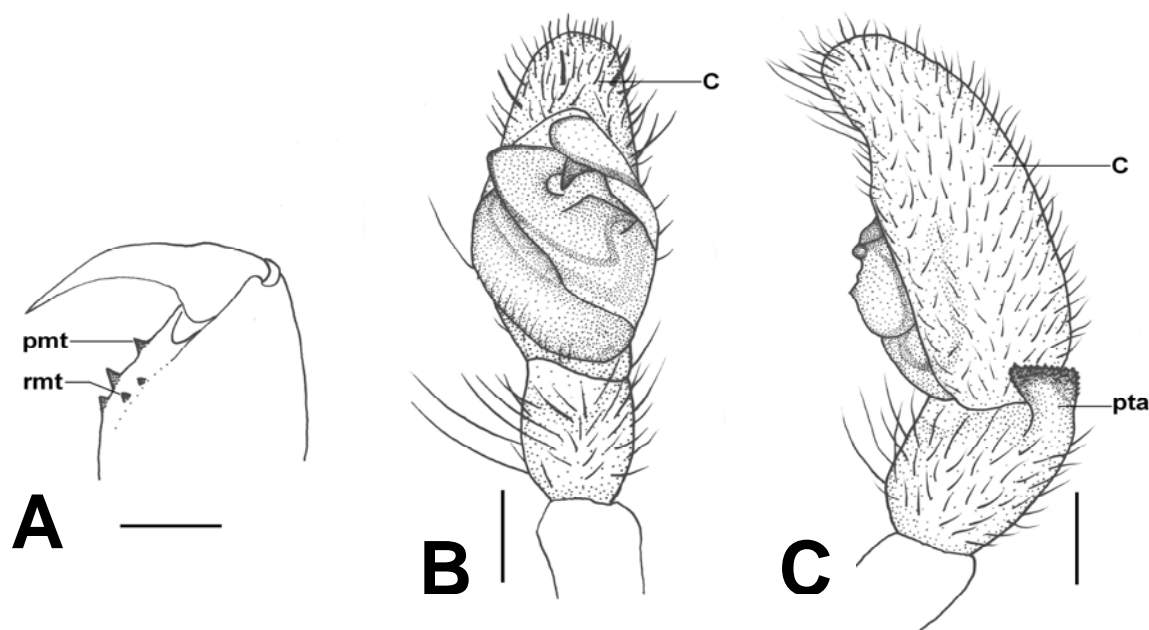


Figure 1. *Matidia spatulata* sp. nov. A. Left chelicera, posterior view. B. Left male palp, ventral view. C. Left male palp, lateral view. Abbreviations: c, Cymbium; pmt, Promarginal tooth; pta, Palpal tibial apophysis; rmt, retromarginal tooth. Scales = 0.2 mm.

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台灣產馬蒂蛛屬蜘蛛之一新種(蜘蛛目：袋蛛科)

陳世煌^{1*} 黃文俊^{1,2}

¹國立台灣師範大學生命科學系

²台東縣立鹿野國民中學

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摘 要

本文描述台灣低海拔山區產袋蛛科之一新種：鏟形馬蒂蛛。鏟形馬蒂蛛雄蛛觸肢之插入器為帶狀，末端迴轉一圈，並且觸肢脛節突起呈鏟形，末端擴大、截平，並有細齒狀突起，與本屬其他種類可資區別。雌蛛不明。馬蒂蛛屬為台灣蜘蛛的新紀錄屬。

關鍵詞：蜘蛛目、袋蛛科、馬蒂蛛屬、新種、台灣

*通信作者：陳世煌 (Shyh-Hwang Chen); FAX: 886-2-29312904; E-mail: alchen@ntnu.edu.tw