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[Short Communication]

A new species of the genus *Dipoena* from Taiwan (Araneae: Theridiidae)

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Abstract — A new species of the genus *Dipoena* is described and illustrated under the name *Dipoena adunca*.

Key words — Araneae, Theridiidae, *Dipoena*, new species, Taiwan

Introduction

Species of the genus *Dipoena* Thorell 1869 are small to medium-sized spiders living in the shrubs, brushwood, and under stones, with many species feeding on ants. Totally 158 species have been reported all over the world (Platnick 2005), and 21 species are known distributed in China (Zhu 1998).

Levi (1953) and Levi & Levi (1962) once considered this genus as a senior synonym of *Lasaeola* Simon 1881 and *Trigonobothrys* Simon 1889. However, Wunderlich (1988) restricted this genus to the type species, *D. melanogaster* (C. L. Koch 1837), and assigned others to the resurrected junior synonym *Lasaeola* Simon 1881 or to a new genus *Dipoenata* Wunderlich 1988. Similarly, Yoshida (2002) resurrected the genus *Trigonobothrys*, and erected a new genus *Yaginumena* Yoshida 2002 to assign some species belonging to *Dipoena* formerly. The authors also think that the original *Dipoena* may be polyphyletic, but unfortunately, the two scholars did not offer convincing synapomorphies to define the updated *Dipoena* and the related four genera. This problem can not be dealt with until worldwide revision of these groups is completed.

Formerly, 5 species of the genus *Dipoena* were reported from Taiwan, which have been transferred to *Phycosoma* or *Yaginumena* now: *Phycosoma amamiensis* (Yoshida 1985), *P. flavomarginata* (Bösenberg & Strand 1906), *P. mustelina* (Simon 1889), *P. nigromaculata* (Yoshida 1987) and *Yaginumena mutilata* (Bösenberg & Strand 1906) (Chen 1996; Yoshida & Ono 2000; Yoshida 2003; Platnick 2005). By examining some comb-footed spider specimens collected from Taiwan recently, the authors found a new species of the genus *Dipoena* and described here under the name *Dipoena adunca*. Although the male carapace of the new species is cylindrical which is not accordant to others of the genus *Dipoena*, it is still included in this genus until worldwide revision of *Dipoena* and related genera is completed.

Materials and methods

Type series are deposited in National Museum of Natural Science, Taichung, Taiwan (NMNS). All measurements given are in mm. Palp measurements are shown as: total length (femur, patella, tibia, tarsus). Leg measurements are shown as: total length (femur, patella and tibia, metatarsus, tarsus). Abbreviations used in this study are: AME, anterior median eye; ALE, anterior lateral eye; PME, posterior median eye; PLE, posterior lateral eye; MOA, median ocular area; AME-AME, distance between AMEs; AME-ALE, distance between AME and ALE; PME-PLE, distance between PME and PLE; PME-PME, distance between PMEs.

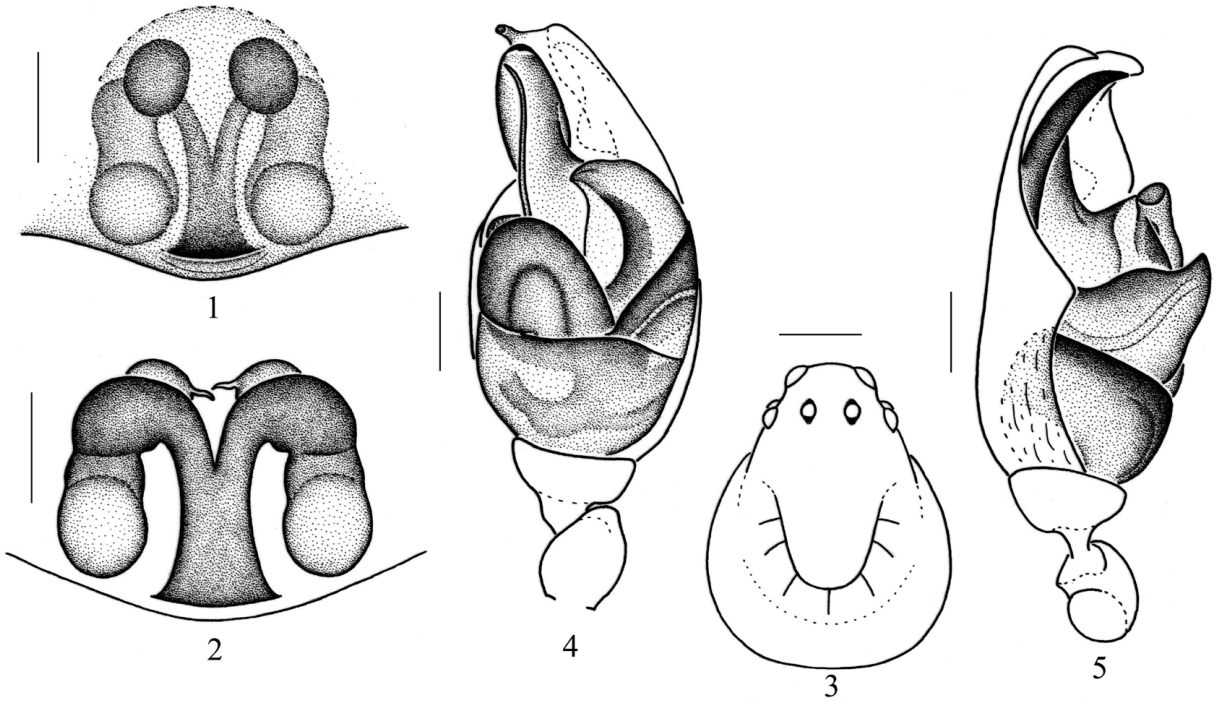
Dipoena adunca new species
Figs. 1−5

Type series. Male holotype and 1 female paratype, March 2000, and 1 male paratype, April 2000, from Keng-Ting National Park, Pingtung County (22°36′N, 120°30′E), Taiwan, collected by Y. L. Hsieh.

Etymology. The specific name is from the Latin *adunca*, and refers to the median apophysis hooked in the lateral view.

Diagnosis. The new species is similar to *Dipoena nipponica* Yoshida 2002 (Yoshida 2002, p. 10, figs. 7−13), but it differs from the latter in male carapace with deep dorsal grooves (Fig. 3); cymbium of male palp with a distal protuberance; base of embolus large and sickle-shaped (Figs. 4−5); connecting duct of vulva almost as thick as spermatheca (Fig. 2).

Male. Total length 1.40−1.48. Holotype total length 1.40: cephalothorax 0.73 long, 0.65 wide; abdomen 0.71 long, 0.71 wide. Carapace high, red brown and with dorsal grooves. Chelicerae small and yellowish brown. Labium, endites and sternum orange. Sternum with some gray pigments. Legs yellowish brown, with gray brown bands at the end the all segments. Abdomen grayish, with a few irregular black patches. In dorsal view, anterior eye row strongly recurved, and posterior eye row slightly recurved. AME-AME 0.08, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.05; AME 0.08, ALE 0.05, PME 0.07, PLE 0.07; MOA 0.18 long, front width 0.22, back width 0.16. Sternum almost as long as wide. Labium wider than long. Measurements of palp and legs: palp 1.08 (0.39, 0.13, 0.07, 0.49); leg I 2.19 (0.69, 0.72, 0.42, 0.36), II 1.83 (0.59, 0.60, 0.31, 0.33), III 1.53 (0.46, 0.47, 0.26, 0.34), IV 2.11 (0.68, 0.69, 0.39, 0.35). Leg formula: 1, 4, 2, 3. Cymbium of palp with a protuberance at the distal end; embolus slender, with



Figs. 1–5. *Dipoena adunca* new species. 1. Epigynum, ventral view; 2. Vulva, dorsal view; 3. Male carapace, dorsal view; 4. Left palp of the male, ventral view; 5. Left palp of the male, prolateral view. (Scales for Figs. 1–2, 4–5, 0.1 mm; for Fig. 3, 0.2 mm)

large and sickle-shaped base, and hooked end distally in lateral view; conductor long and thick (Figs. 4–5).

Female. Total length 1.80: cephalothorax 0.68 long, 0.61 wide; abdomen 1.19 long, 1.05 wide. Carapace pear like and red brown, with head region high. Cervical groove and radial furrow present. Chelicerae, labium and endites yellow brown. Sternum red brown. Legs yellow brown, with a few gray patches. Abdomen gray brown, with irregular earthy yellow patches. Measurements of legs: I 2.19 (0.66, 0.65, 0.51, 0.37), II (lost), III (lost), IV (lost). Vulva with two pairs of spermathecae, connecting duct thick and inflated near the spermatheca (Figs. 1–2).

Distribution. Taiwan (Pingtung County).

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