



First Record of *Erigone atra* Blackwall, 1833 in Taiwan (Araneae: Linyphiidae)

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Abstract. This is the first record of *Erigone atra* from Taiwan, with a taxonomic key of Taiwanese species.

Keywords: Nantou, taxonomic key, new record, dwarf spiders

Erigone Audouin, 1826, a genus of the dwarf spider family Linyphiidae, encompasses 111 described species (World Spider Catalog, 2023). Among these, only two are found in Taiwan (Fig. 1A): *E. prominens* Bösenberg & Strand, 1906 (Chu & Okuma, 1970) and *E. koshiensis* Oi, 1960 (Lee, 1964). By comparing specimens from Nantou with the original description (Blackwall, 1833) and images from neighboring regions (Song & Li 2008; Ono et al. 2009; Seo 2011; Irfan, Zhang & Peng 2022), we have confirmed the presence of *Erigone atra* Blackwall, 1833 in Taiwan. The species has been found exclusively at higher elevations in Taiwan, different from the species' occurrences in adjacent areas, thus highlighting the necessity for increased research and attention.

Genus *Erigone* Audouin, 1826

Erigone atra Blackwall, 1833 黑微蛛

Material examined. TAIWAN: Nantou County: 1 ♂ Ren'ai Township (仁愛鄉), 24.15°N, 121.25°E, 3100m, VII-5-2020, YU-CHUN HSIAO Leg. ABARA_04747 (Alcoholic fluid specimen, Department of Life Sciences, NCHU).

The identification was based on following characteristics: a triangular dark brown carapace with radial patterns (Fig. 1B), an elevated ocular region (Fig. 1C), and chelicerae with five prominent teeth (Fig. 1D). The abdomen is gray-brown, while the legs are light brown with a tibial chaetotaxy 2-2-2-1. In males, the pedipalp features denticles on the femur and a patella with a long blunt process known as the patella apophysis (Fig. 1E). Additionally, the male palp organ exhibits an anterior radical process that is semi-circular with a central concavity, an upward-extending embolus membrane and median membrane, a median membrane ending in a protuberance, and a smooth, blunt retrolateral tibial apophysis (Fig. 1F).

Key to the Taiwanese Species of the Genus *Erigone* for Male (modified from Song & Li 2008; Ono et al. 2009; Seo 2011)

1. The femur of the pedipalp is equipped with multiple denticles, and the retrolateral patella apophysis is blunt. The palpal organ features a distal suprathecal apophysis extending upward from the base, while the retrolateral tibial apophysis is smooth and blunt-shaped..... *E. atra*
The femur of the pedipalp lacks prominent denticles, and the retrolateral patella apophysis is pointed. The palpal organ features a distal suprathecal apophysis that bends and has multiple small bifurcations at the top, while the retrolateral tibial apophysis is acute and pointed in shape.....2
2. Length of pedipalp patella longer than pedipalp tibia..... *E. prominens*
Length of pedipalp patella not longer than pedipalp tibia..... *E. koshiensis*

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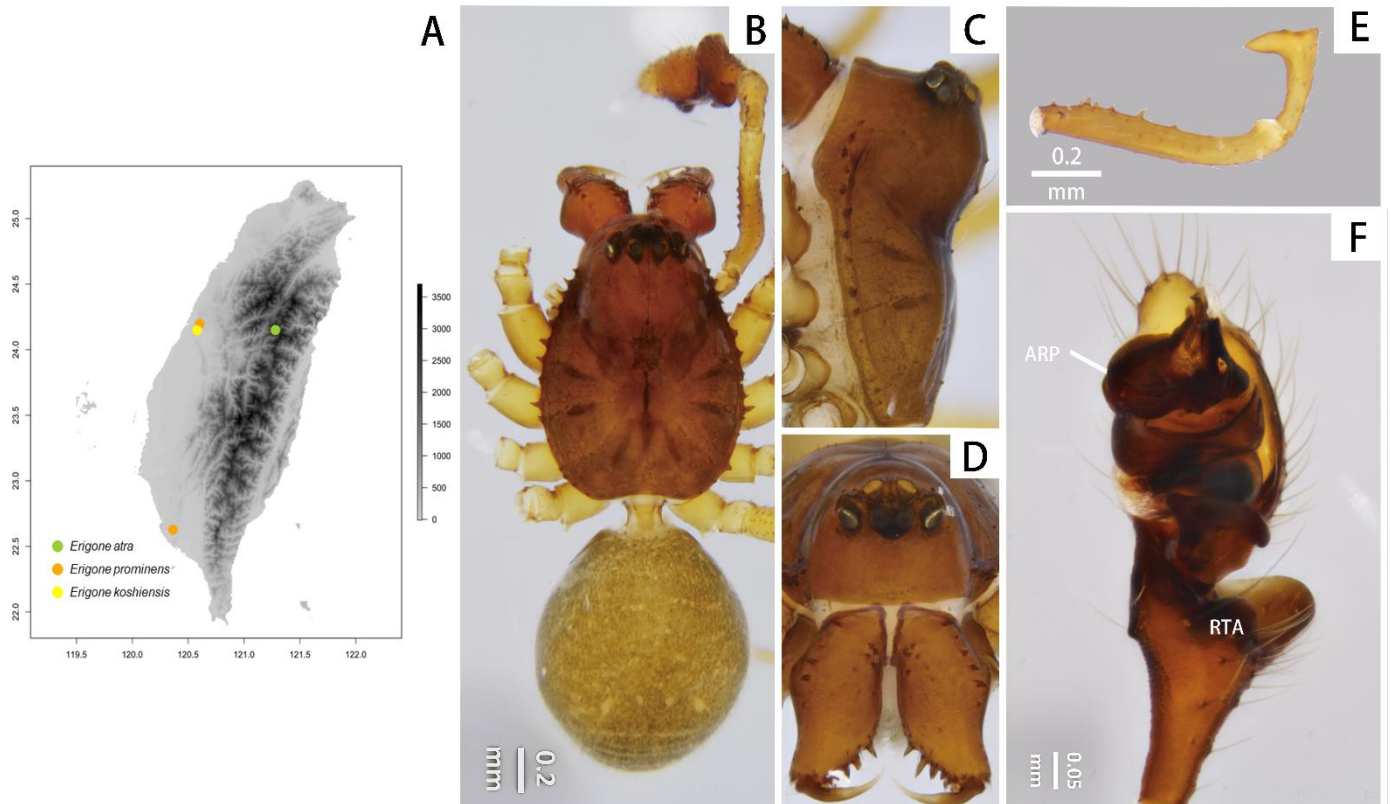


Figure 1. A, Specimen records of *Erigone* spp. in Taiwan. *Erigone atra* Blackwall, 1833, Male: B, Dorsal view. C, lateral view of the carapace. D, Anterior view of the carapace. E, Patella and femur of right male palp, retrolateral view. F, Left palp. Abbreviations: ARP, anterior radical process; RTA, retrolateral tibial apophysis. Morphological terminology is referenced according to Hormiga (2000).

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黑微蛛於臺灣之首次紀錄 (蜘蛛目：皿蛛科)

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摘要：廣布於全北界的黑微蛛首次記錄於臺灣，並附上臺灣微蛛屬的檢索表。

關鍵詞：南投、檢索表、新紀錄、微蛛亞科