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A new erigonine genus and species from West Malaysia (Araneae: Linyphiidae)

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Abstract. A new monotypic erigonine genus, *Pahangone*, new genus, with *P. mirabilis*, new species as the type species, is described from West Malaysia. The new genus is characterised by such a peculiar combination of characters, both somatic and genital, that its taxonomic position within Erigoninae remains unclear.

Key words. taxonomy, spiders, Arachnida, Erigoninae, southeastern Asia

INTRODUCTION

The linyphiid spider fauna of Southeast Asia is very rich and highly specific. Most of the species described from the region do not fit into Palaearctic taxa, but are represented by numerous peculiar genera. Thus, over the past 35 years, more than 30 new genera and 130 new species of linyphiids have been described from Southeast Asia by Helsdingen (1969, 1985), Locket (1982), Millidge & Russell-Smith (1992), Millidge (1995), Saaristo & Tanasevitch (2003a, b), Tu & Li (2004), Tanasevitch (2014a, b, 2017a, b, 2018), Zhao & Li (2014), etc. At present, the linyphiid fauna of the region is known to contain no less than 155 species and 72 genera. The description of another new genus and species from West Malaysia is the subject of the current contribution.

MATERIAL AND METHODS

This paper is based on the spider material collected from the south part of the Malay Peninsula, West Malaysia by Peter Jäger, and is kept at the Senckenberg Museum, Frankfurt on Main, Germany (SMF).

Specimens preserved in 70% ethanol were studied using a MBS-9 stereo microscope and a Wild compound microscope. A Levenhuk C-800 digital camera was used for the production of some drawings. Images of multiple focal sections were combined using Helicon Focus image stacking software. The chaetotaxy is given in a formula, i.e., 2.2.1.1, which refers to the number of dorsal spines on tibiae I–IV. The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are measured using an ocular micrometer and given in millimeters. Scale lines in the figures correspond to 0.1 mm unless indicated otherwise. Figure numbers are given above the scale lines, the alternative distance below.

The terminology of copulatory organs mainly follows that of Merrett (1963) and Hormiga (2000).

Abbreviations, used in the text and figures:
D—duct
DSA—distal suprategular apophysis sensu Hormiga (2000)
E—embolus
MM—median membrane sensu Helsdingen (1965) = embolic membrane sensu van Helsdingen (1986) and Hormiga (1994)
MP—median plate
P—paracymbium
TmI—position of trichobothrium on metatarsus I

TAXONOMY

Order Araneae Clerck, 1757

Family Linyphiidae Blackwall, 1859

Subfamily Erigoninae Emerton, 1882

Pahangone, new genus

Type species. *Pahangone mirabilis*, new species.

Etymology. The generic name is a combination of two words: "Pahang", the country of origin, and a part of the generic name *Erigone*. The gender of the genus name is masculine.

Diagnosis. The new genus belongs to the subfamily Erigoninae and is characterised by the following peculiar combination of characters, both somatic and genital:

1) relatively large-sized erigonines, total length 2.25–2.30 mm;
2) male carapace slightly modified (see Figs. 1, 2);
3) abdomen with a dorsal pattern in both sexes;
4) legs relatively long and thin;

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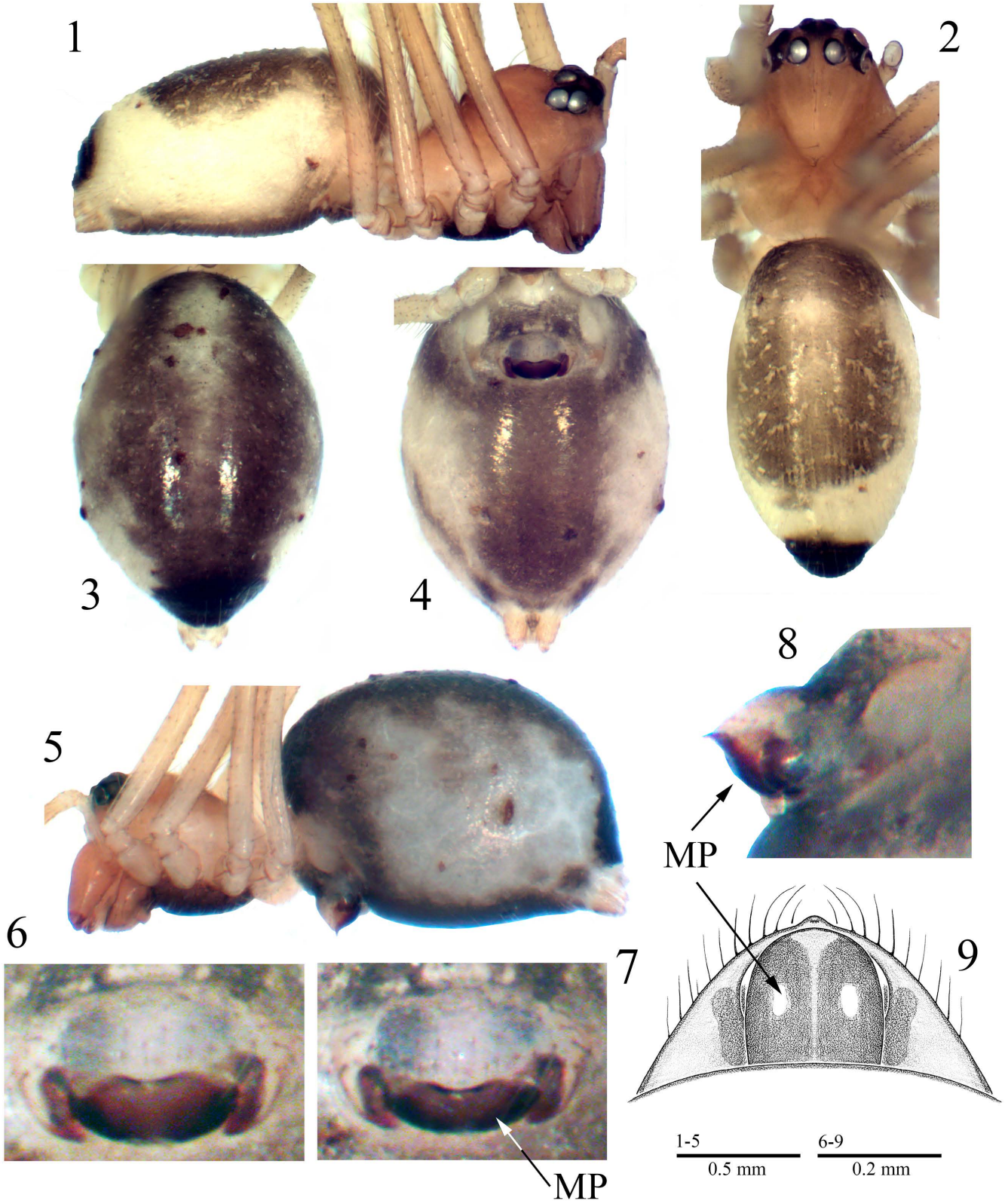
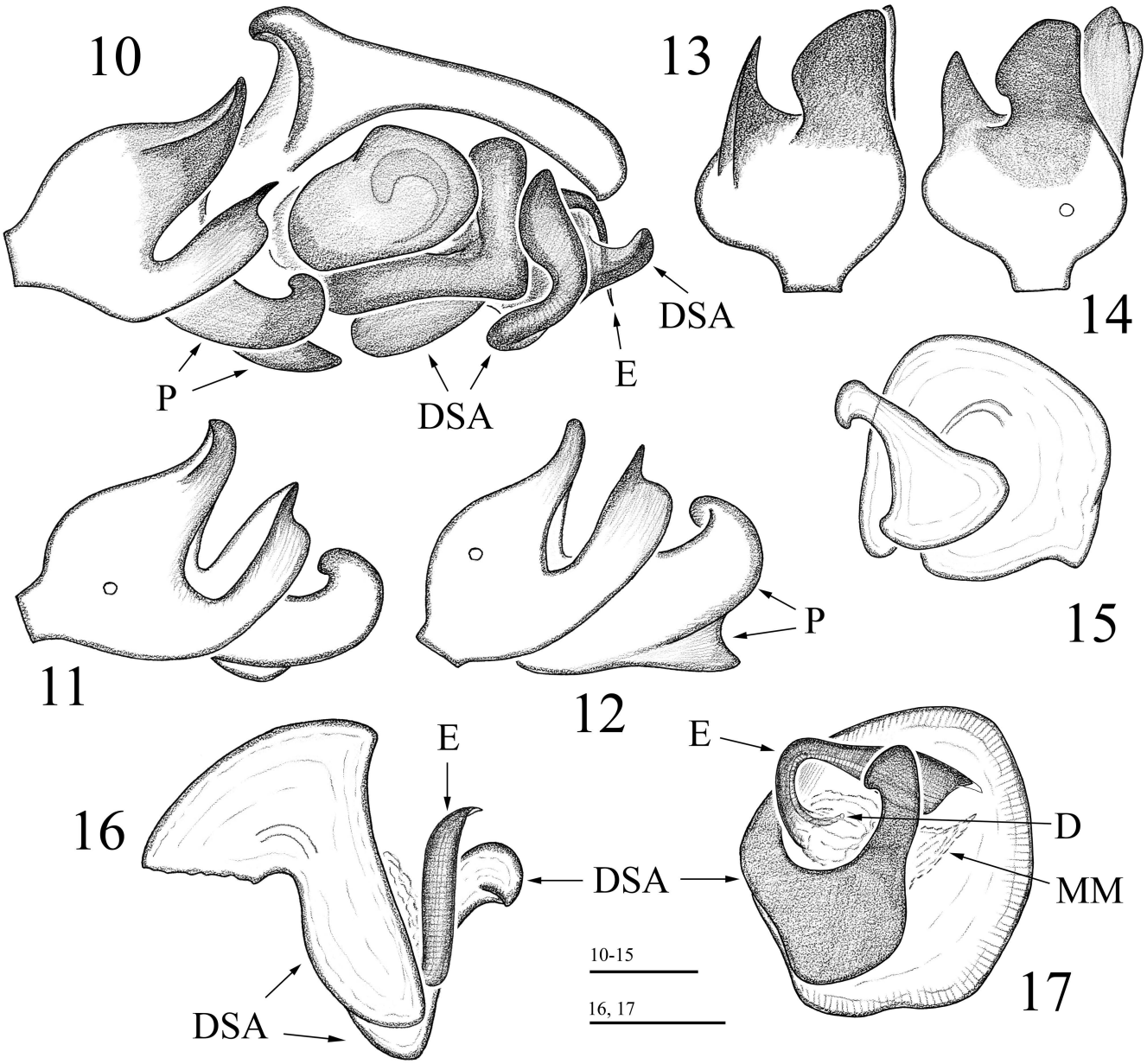


Figs. 1–9. *Pahangone mirabilis*, new species, male holotype (1, 2) and female paratype (3–9). 1, 2, 5, body, lateral (1, 5) and dorsal (2) views; 3, 4, abdomen, dorsal and ventral views, respectively; 6, 7, epigyne, ventral view, different aspects; 8, 9, epigyne, lateral and posteroventral views, respectively.



Figs. 10–17. Palp of *Pahangone mirabilis*, new species, male holotype. 10, right palp, retrolateral view; 11, 12, palpal tibia and paracymbium, lateral and retrolateral views, respectively; 13, 14, palpal tibia, posterodorsal and dorsal views, respectively; 15, distal suprategular apophysis, lateral view; 16, distal suprategular apophysis and embolus, lateral view; 17, distal suprategular apophysis and embolic division, anterolateral view.

5) chaetotaxy 2.2.1.1;
6) all metatarsi with a trichobothrium; TmI close to 0.50;
7) cymbium and palpal tibia highly modified (see Figs. 10–14);
8) distal suprategular apophysis highly developed and strongly sclerotised;
9) embolus short, bent; radix membranous;
10) epigyne prominent, cavity covered with a plate (see Figs. 5–9).

Among the genera that share the same chaetotaxy formula, 2.2.1.1, there is none similar to the new genus through this combination of characters. Habitually, i.e., based on the relatively long and slender legs, *Pahangone*, new genus resembles both *Hylyphantes* Simon, 1884 and *Gladiata* Zhao & Li, 2014, but genitalic conformation is absolutely different. A highly developed distal suprategular apophysis is known in many genera, e.g., the *Savignia* genus-group in the sense of Millidge (1977) and some other genera, but *Pahangone mirabilis*, new species shows no real similarity to any of such taxa based on other genitalic structures. At present, it is too difficult to outline the closest relatives of this genus and perhaps such may be found among some other new Southeast Asian erigonines.

Description. See below under species description.

Species included. Only the type species, *Pahangone mirabilis*, new species.

Distribution. Malay Peninsula, West Malaysia.

***Pahangone mirabilis*, new species**
(Figs. 1–17)

Holotype. Male (SMF), WEST MALAYSIA, Pahang State, Frazer's Hill, Hemmant trail, Lady Guillemard road, 3°42′55.85″N 101°44′19.15″E, 1,275 m a.s.l., secondary forest, at night, by hand, 15.II.2015, leg. P. Jäger & T. Laufs.

Paratype. 1 female, collected together with the holotype.

Name. The specific name, *mirabilis*, is a Latin adjective, meaning "amazing", "surprising", referring the peculiar structure of the male palp.

Description. Male holotype. Total length 2.25. Carapace 0.90 long, 0.70 wide, pale brown, with a smooth and gentle elevation behind posterior row of eyes as shown in Figs. 1 and 2. Sulci absent. Eyes slightly enlarged. Chelicerae 0.38 long, mastidion absent. Legs pale yellow. Leg I 4.68 long (1.25+0.28+1.25+1.15+0.75), IV 4.11 long (1.15+0.25+1.00+1.08+0.63). Chaetotaxy 2.2.1.1, spines very long, its length about 2.5–3.5 diameters of segment. Each metatarsus with a trichobothrium. TmI 0.49. Palp (Figs. 10–17): tibia strongly modified, bearing three outgrowths differing in shape. Cymbium with a posterodorsal conical extention bent backwards. Paracymbium massive, its distal part with a ventral keel-shaped lobe. Distal suprategular apophysis strongly developed and sclerotised. Its distal part bent and surrounding the embolic division. Radix membranous. Embolus relatively short, bent at base, gradually broadening distad. Median membrane small, poorly-visible. Abdomen 1.38 long, 0.80 wide, dorsal pattern as shown in Fig. 2.

Female. Total length 2.30. Carapace slightly prominent dorsally as shown in Fig. 5; 0.80 long, 0.68 wide, pale brown. Chelicerae 0.33 long. Legs pale yellow. Leg I 4.10 long (1.15+0.20+1.05+1.00+0.70), IV 3.88 long (1.15+0.20+0.95+1.00+0.58). Chaetotaxy: spines mostly lost, but should be same as in male. Each metatarsus with a trichobothrium. TmI 0.48. Abdomen 1.53 long, 1.10 wide, dorsal pattern as shown in Fig. 3. Epigyne convex, cavity covered with an elongated, dark median plate (Figs. 5–9). Receptacles elongated, translucent on each side of epigynal plate.

Distribution. Known from the type locality, Frazer's Hill, in the Malay Peninsula, West Malaysia.

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