

Revision of the Murphy collection of Linyphiidae (Araneae) from south-east Asia

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Abstract

The Murphy collection of Oriental Linyphiidae consists of 25 identifiable species, two of which are new to science: *Johorea pectinata* sp. n. (♂) from West Malaysia and *Locketina murphyorum* sp. n. (♂♀) from East Malaysia. A new synonym and a new combination are proposed: *Nasoona prominula* Locket, 1982 = *Nasoona crucifera* (Thorell, 1895) syn. n.; *Microbathypantes minimus* (Locket, 1982) ex *Kaestneria* comb. n. *Atypena cirrifrons* (Heimer, 1984) is recorded from Sri Lanka for the first time; *Kaestneria bicultrata* Chen & Yin, 2000 is new for Hong Kong, China; *M. minimus* and *Nasoona locketi* Millidge, 1995 are new for Bali, Indonesia; *Neriene macella* (Thorell, 1898) and *Plectembolus triflectus* Millidge & Russell-Smith, 1992 are new for Sabah, East Malaysia; *Prosoponoides kaharianum* Millidge & Russell-Smith, 1992 is new for Java, Indonesia; *P. sinense* (Chen, 1991), *Tapinopa undata* Zhao & Li, 2014, and *Theoa vesica* Zhao & Li, 2014 are new for West Malaysia.

Keywords: faunistics • new species • new synonyms • new records • Oriental Region • Hong Kong

Introduction

The Linyphiidae from the Murphy collection kept at the Manchester Museum, University of Manchester, UK (MMUE) were collected from different parts of south-east Asia in the 1980s and 1990s, and in 2001. The linyphiids were originally identified by John Murphy in the period 1988–2001, when the list of the Oriental linyphiids consisted of only 100 species, with 63 of them having been described by contemporary authors: e.g. Locket (1982), Heimer (1984), Millidge & Russell-Smith (1992), and Millidge (1995). Until recently, the study and identification of this taxonomically complex group in the Oriental Region was practically possible, based only on the richly illustrated papers mentioned above, together with a world revision of *Linyphia* by van Helsdingen (1969). Therefore, only a few species from the Murphy collection were identified correctly, with the majority of specimens being left unidentified.

A new phase in the study of south-east Asian linyphiids began since the publication of the following works: Tu & Li (2004), Tanasevitch (2014a,b, 2017a,b, 2018a,b, 2019a,b,c, 2020a,b,c, 2021b), Zhao & Li (2014), and few others. Thanks to these studies, the list of the known south-east Asian linyphiids has increased to 175 species. However, working with the Oriental linyphiids remains as difficult as ever, because the majority of Oriental taxa are yet undescribed.

A revision of the Murphy collection of the Oriental linyphiids has yielded at least 25 identifiable species, with some of them representing new records for particular regions and two species being new to science.

Material and methods

This paper is based on the spider material collected by John & Francis Murphy in the 1980–1990s and in 2001, kept at the MMUE. In addition, some type and comparative specimens from the collection of the Muséum d'histoire naturelle de Genève, Switzerland (MHNG) have been examined. Specimens preserved in 70% ethanol were studied using a MBS-9 stereomicroscope. A Levenhuk C-800 digital camera was used for taking digital photos. In the following text, after the MMUE accession number and description of each locality, an original registration number of the sample in the Murphy collection (#..., four or five digits) is also provided. The chaetotaxy is given in a formula, e.g. Ti I: 2-1-1-2(1), which means that tibia I has two dorsal, one prolateral, one retrolateral, and two or one ventral spines (the apical spines are disregarded). The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given in mm. The terminology of copulatory organs mainly follows Merrett (1963) and/or the authors mentioned in the section below.

The following abbreviations are used in the text and figures: C = convector *sensu* Tanasevitch (1998), CD = copulatory ducts, D = duct, DSA = distal suprategular apophysis *sensu* Hormiga (2000), E = embolus, Fe = femur, JM = John Murphy, J&FM = John & Frances Murphy, MHNG = Muséum d'histoire naturelle de Genève, Switzerland, MM = median membrane *sensu* Helsdingen (1965), MMUE = Manchester Museum, University of Manchester, UK, Mt = metatarsus, NP = National Park, P = paracymbium, PMP = posterior median plate *sensu* Helsdingen, Thaler & Deltshv (1977) (= dorsal plate, median plate, central capsule, *auct*), PT = palpal tibia, R = radix, Ti = tibia, Mt = metatarsus, TmI = position of trichobothrium on MtI.

Aperturina paniculus Tanasevitch, 2014

Material: 1♀ (MMUE, G7572.17351), WEST MALAYSIA: W. Pahang, Genting, 700 m, Barlow's garden, 01 February 1988, J&FM, det. JM, 1991, as Linyphiidae, #15216.

Remarks: The monotypic genus *Aperturina* Tanasevitch, 2014 was established for *A. paniculus* Tanasevitch, 2014, a peculiar species from Pahang State, West Malaysia and Ranong Province, Thailand (Tanasevitch 2014b). This erigonine genus is characterized by a micronetine-type of the leg chaetotaxy, and by a particular structure of the median membrane resembling a panicle. At the time of description, such transformation of the median membrane seemed unique (Tanasevitch 2014b), but soon the panicle-shaped membrane has been found in another Oriental erigo-



Figs. 1–3: Male holotype of *Johorea pectinata* sp. n. **1** habitus, dorsal view; **2** same, lateral view; **3** prosoma, lateral view. Scale bar = 0.5 mm.

nine genus *Racata* Millidge, 1995 (see Tanasevitch 2019b). It is clear now that these genera are very closely related, and *Aperturina* can be distinguished mainly by the modified male carapace carrying sulci, as well as by the well-formed radix in the embolic division of the male palp. The females of both genera show very similar epigynes, with the widely open apertura.

Distribution: West Malaysia and southern Thailand (Tanasevitch 2014b, present data).

Atypena cirrifrons (Heimer, 1984)

Material: 3♂, 3♀ (MMUE, G7572.19570), SRI LANKA: Gampola, on rice, 28 July 1986, J&FM, det. JM, 1988, as *Peponocranium?*, #15896. 2♂, 2♀ (MMUE, G7572.19569), INDIA: Bihar, Sindri, on *Leersia*, 20 November 1987, J&FM, det. JM, 1988, as *Peponocranium?*, #15895.

Remarks: The species was originally described under *Paranasoona* Heimer, 1984 from Hanoi, Vietnam (Heimer 1984). Later, the genus *Paranasoona* was synonymized with *Atypena* Simon, 1894 (Tanasevitch 2014a) and, since then, *A. cirrifrons* has been recorded from many parts of the Oriental Region (see below).

Distribution: Vietnam (Heimer 1984); Guangxi, China (Zhu & Sha 1992); Champasak Province, Laos (Tanasevitch 2014a); Chiang Mai Province, Thailand (Tanasevitch 2014b); Orissa & Meghalaya states, India (Tanasevitch 2017a, 2019c), and now Bihar, India, and Sri Lanka (present data).

Bathyphantes paracymbialis Tanasevitch, 2014

Material: 1♀ (MMUE, G7572.16506), WEST MALAYSIA: W. Pahang, Genting, 700 m, Barlow's garden, 01 February 1988, J&FM, det. JM, 1991, as *Bathyphantes*,

#15070; 1♂ (MMUE, G7572.12427), Barlow's garden, shrubs, February 2001, J&FM, det. JM, 2001, as *Parameioneta?*, #23765; 1♀ (MMUE, G7572.12457), Barlow's garden, shrubs & litter, 20 February–06 March 2001, J&FM, det. JM, 2001, as *Parameioneta?*, #23805.

Distribution: This species is widespread in the continental and insular parts of the Oriental Region: southeastern China (Zhao & Li 2014); Laos; Thailand (Tanasevitch 2014a); West Malaysia (Tanasevitch 2014a, b, present data); Myanmar; Sumatra, Indonesia (Tanasevitch 2017a, b), and recently recorded from the Nepal Himalayas (Tanasevitch 2021a).

Batueta baculum Tanasevitch, 2014

Material: 1♀ (MMUE, G7572.17350), WEST MALAYSIA: W. Pahang, Genting, 700 m, Barlow's garden, 01 February 1988, J&FM, det. JM, 1991, as Linyphiidae, #15215.

Distribution: Thailand; West Malaysia (Tanasevitch 2014b); Laos; Sumatra, Indonesia and Sarawak, East Malaysia (Tanasevitch 2017a, present data).

Hylyphantes graminicola (Sundevall, 1830)

Material: 2♀ (MMUE, G7572.16342), CHINA: Hong Kong, Aberdeen Park, 2–300 m, shrubs & litter, etc., 01 March 1988, J&FM, det. JM, 1988, #15682; 1♂, 2♀ (MMUE, G7572.16355), Hong Kong, Lamma Island, 100 m, shrubs & litter, etc., 04 March 1988, J&FM, det. JM, 1988, #15708. All specimens were earlier identified by J. Murphy as *H. graminicola*.

Distribution: The species is widespread in the Palaearctic, being also recorded from the mainland of the Oriental Region: Myanmar, Thailand, Laos and Vietnam (World Spider Catalog 2021).

Johorea Locket, 1982

Type species: Johorea decorata Locket, 1982 by monotypy.

Remarks: This small erigonine genus is characterized by a complex structure of the male palp, namely, the peculiar and complicated embolic division, as well as the leg chaetotaxy that is untypical for the Erigoninae micronetine-type (see below).

Species included: Johorea decorata and a new species described below.

***Johorea pectinata* sp. n.** (Figs. 1–3, 14–21)

Type: Holotype ♂ (MMUE, G7572.16556), WEST MALAYSIA: W. Pahang, Genting, Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, as *Johorea*, #15128.

Diagnosis: The new species is very similar to the type species, *J. decorata* Locket, 1982, but can be easily distinguished from it by the presence of a comb (Figs. 1, 16–17), a row of closely spaced spines on the palpal tibia, as well as by shorter embolus (Figs. 14–15; cf. figs. 65–66 in Locket 1982).

Etymology: The specific epithet *pectinata* is a Latin adjective meaning 'provided with a comb'.

Description: Holotype ♂. Total length 1.45. Carapace unmodified, 0.63 long, 0.50 wide, pale yellow, with wide, darker, lateral band; eyes slightly enlarged (Figs. 1–3). Chelicerae 0.63 long, anterior margin with three very small teeth, posterior one toothless. Legs pale yellow, annulated. Leg I 2.77 long (0.70 + 0.18 + 0.58 + 0.78 + 0.53), IV 2.21 long (0.58 + 0.13 + 0.55 + 0.60 + 0.35). Chaetotaxy. FeI: 0-1-0-0, II-IV: 0-0-0-0; TiI: 2-1-1-0, II: 2-0-1-0, III-IV: 2-0-0-0; MtI-IV spineless. Metatarsal trichobothria not found. Palp (Figs. 14–21): Tibia of complicated shape, a dorsal conical outgrowth short, ending with a row of closely spaced spines. Cymbium unmodified. Paracymbium very small, hook-shaped. Median membrane transparent, long, widened distally. Distal suprategular apophysis poorly sclerotized, relatively long and wide. Embolic division not entirely elucidated. Radix large and complex, embolus thin and curved. Abdomen 0.80 long, 0.53 wide, pale, with indistinct grey pattern (Figs. 1–2).

Distribution: Known only from the type locality.

***Kaestneria bicultrata* Chen & Yin, 2000**

Material: 3♂, 3♀ (MMUE, G7572.16298), CHINA: Hong Kong, New Territory, Mai Po, 5 m, mangroves, 27 February 1988, J&FM, det. JM, 1988, as Linyphiidae?, #15607.

Distribution: Known from Sumatra, Indonesia (Tanasevitch 2017a); Hunan and Yunnan provinces, China (Chen & Yin 2000, Zhao & Li 2014) and now from Hong Kong (present data).

***Kalimagone cuspidata* Tanasevitch, 2017**

Material: 1♀ (MMUE, G7572.7183), EAST MALAYSIA: Sabah, Kinabalu NP, Bukit Tupai path, 1800 m, 03 August 1979, J&FM, det. JM, 1991, as *Nasoona*, #8059.

Distribution: Sabah, East Malaysia (Tanasevitch 2017b, present data).

***Kenocymbium deelemanae* Millidge & Russell-Smith, 1992**

Types: Holotype ♂ and ♀ paratype (MHNG), Bohorik, northern Sumatra, Indonesia, 15 November 1983, C. Deeleman.

Material: 1♀ (MMUE, G7572.15648), WEST MALAYSIA: Johor, Gunong Pulai, 100 m, roadside vegetation, 19 January 1986, J&FM, det. JM, 1991, as *Neriene area*, #13247; 1♀ (MMUE, G7572.12478), W. Pahang, Genting, 700 m, shrubs & litter, February 2001, J&FM, det. JM, 2001, as Linyphiidae?, #23830.

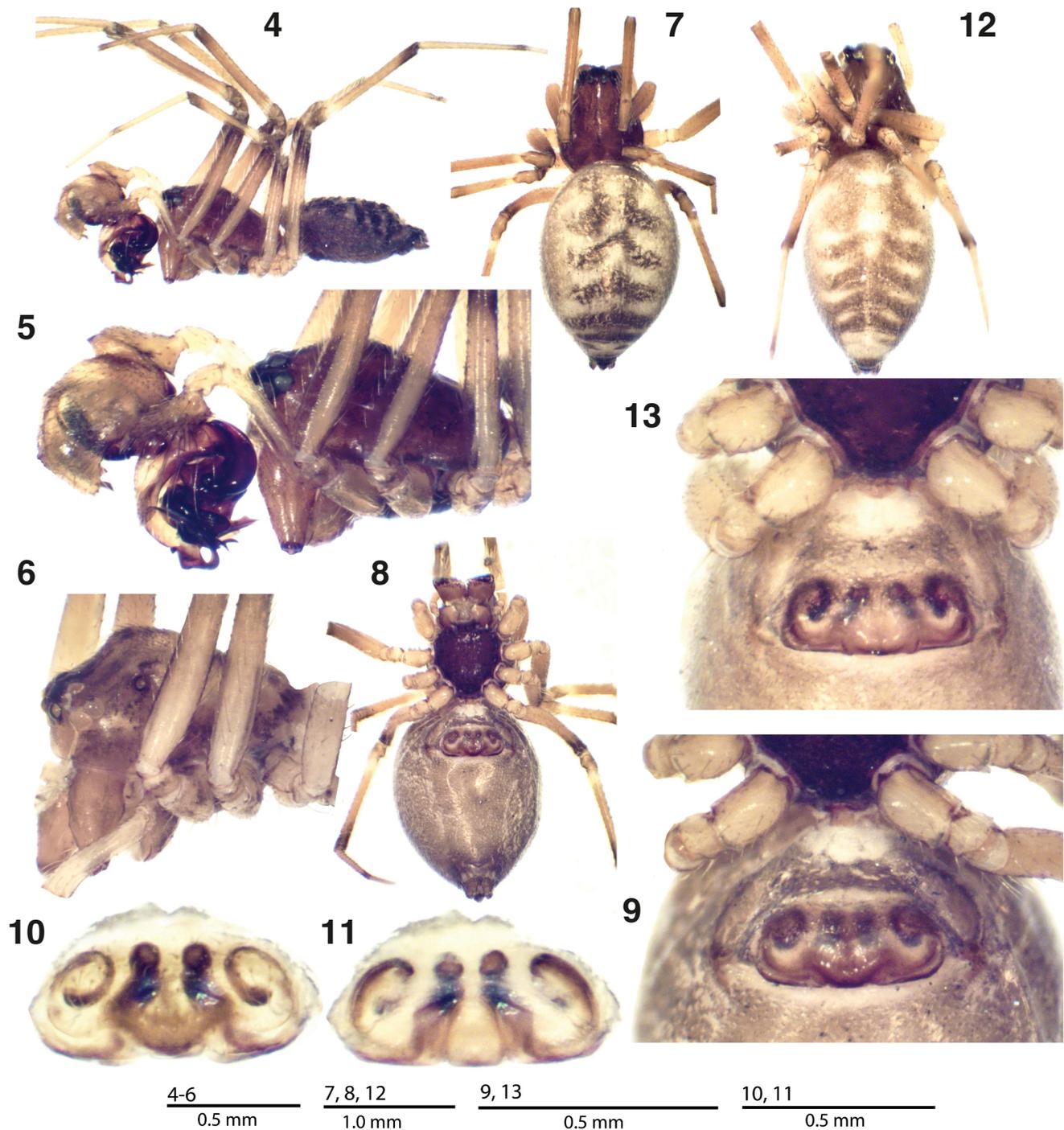
Remarks: *Kenocymbium deelemanae*, the type species of *Kenocymbium* Millidge & Russell-Smith, 1992, was described from both sexes from Sumatra, Indonesia (Millidge & Russell-Smith 1992). *Kenocymbium*, together with the extremely similar *Prosoptonoides* Millidge & Russell-Smith 1992, are genera of an unclear taxonomic position within the Linyphiidae. Both combine characters of two subfamilies: i.e. Dubiaraneinae and Linyphiinae (for details see discussions in Millidge & Russell-Smith 1992, Millidge 1995 and Tanasevitch 2019b).

Distribution: Sumatra, Indonesia (Millidge & Russell-Smith 1992); West Malaysia (Tanasevitch 2017a, present data).

Locketina Kocak & Kemal, 2006

Type species: Kuala versa Locket, 1982, by monotypy.

Remarks: The erigonine genus *Kuala* Locket, 1982 was established by Locket (1982) for *K. versa* Locket, 1982, from both sexes from Pahang, West Malaysia. Two other species that are currently assigned to this genus (by mistake, in my opinion), *K. pusilla* Millidge & Russell-Smith, 1992 and *K. fissivulva* Millidge & Russell-Smith, 1992, were described from the females and are restricted to Brunei (Millidge & Russell-Smith 1992). Later, the generic name *Kuala* was replaced with *Locketina* Kocak & Kemal, 2006 by Kocak & Kemal (2006), as being preoccupied in Nematoda. The genus includes relatively large erigonines, with leg chaetotaxy 2.2.1.1, all metatarsi with a trichobothrium, TmI 0.62–0.66. The males are characterized by the presence of the convector, the more or less reduced radix and the long, thin embolus. The females are diagnosed by the large and wide epigyne, long and distally looped copulatory ducts, as well as by the closely spaced subspherical receptacles.



Figs. 4–13: *Locketina murphyorum* sp. n., male holotype (4–5), male paratype from Bukit Tupai (6), female paratype from Mt Kinabalu (MMUE, G7572.4043) (7–11), female paratype from Kinabalu NP (MMUE, G7572.6673) (12–13). 4 habitus, lateral view; 7, 12 same, dorsal view; 8 same, ventral view; 5, 6 prosoma, lateral view; 9, 13 epigyne, ventral view; 10 cleared epigyne, ventral view; 11 same, dorsal view.

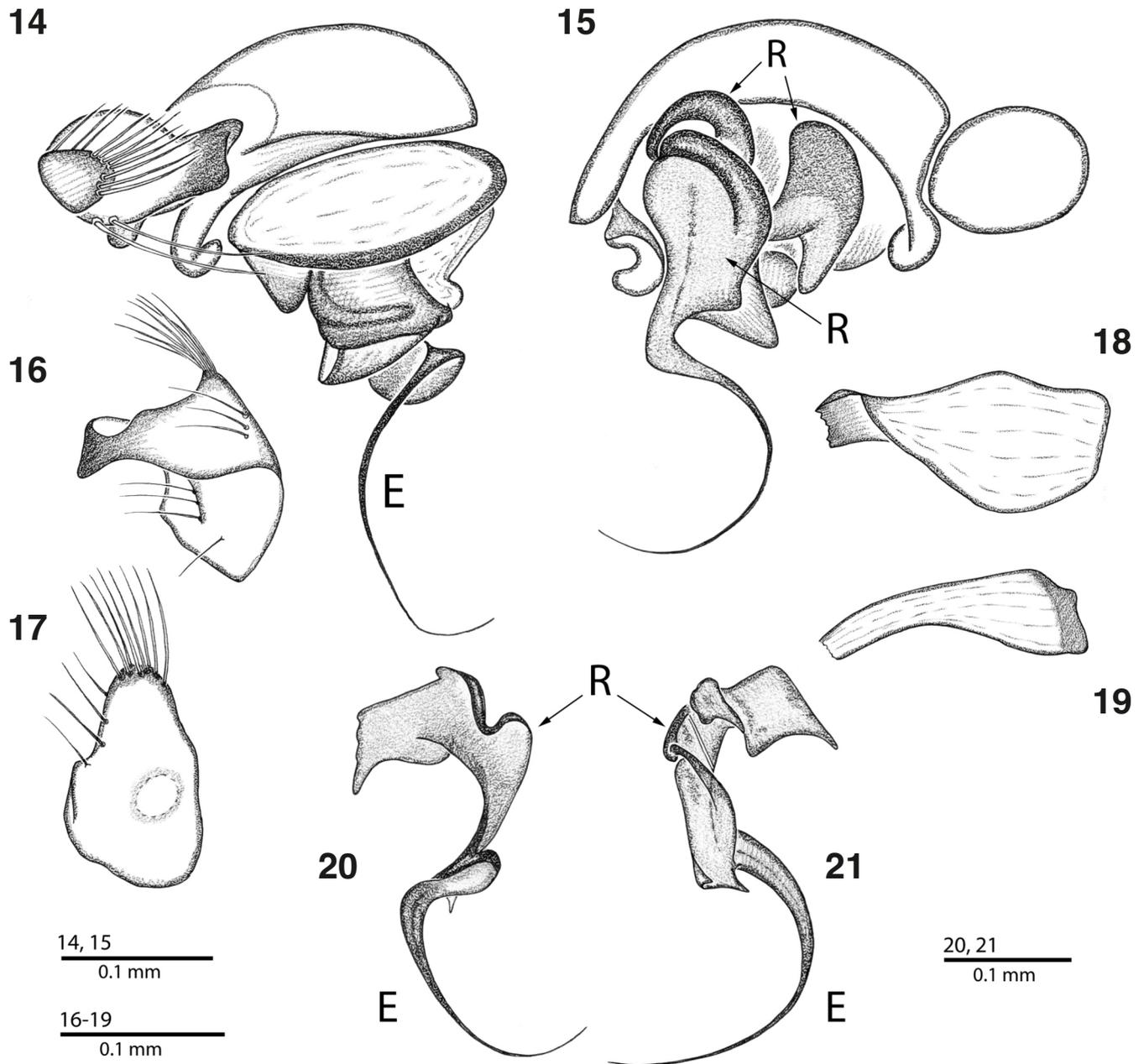
The genus *Locketina* currently contains three species (World Spider Catalog 2021), the fourth one was found in the Murphy collection and is described below.

Distribution: The genus was known from West Malaysia (Locket 1982), Brunei (Millidge & Russell-Smith 1992), and now from Sabah, East Malaysia (present data).

***Locketina murphyorum* sp. n.** (Figs. 4–13, 22–27)

Types: Holotype ♂ (MMUE, G7572.6736), EAST MALAYSIA: Sabah, Kinabalu NP, 2000 m, Kiau Shelter,

31 July 1979, J&FM, det. JM, 1991, as *Kuala*, #7980. Paratypes: 1♀ (MMUE, G7572.4043), Mt Kinabalu, 1800 m, 22 January 1976, J&FM, det. JM, 1991, as *Kuala*, #5248; 1♀ (MMUE, G7572.6673), Kinabalu NP, 1800 m, rainforest paths, 30 July 1979, J&FM, det. JM, 1991, as *Kuala*, #7898; 1♀ (MMUE, G7572.6701), Kinabalu NP, Bukit Tupai path, 1800 m, 31 July 1979, JFM, det. JM, 1991, as *Kuala*, #7936; 1♂ (MMUE, G7572.7182), Bukit Tupai path, 1800 m, 3 August 1979, J&FM, det. JM, 1991, as *Kuala*, #8058.



Figs. 14–21: *Johorea pectinata* sp. n., holotype, male palp. **14** right palp, retrolateral view; **15** same, prolateral view; **16** palpal tibia, prolateral view; **17** same, dorsal view; **18** distal suprategular apophysis, lateral view; **19** median membrane, lateral view; **20**, **21** embolic division, different aspects.

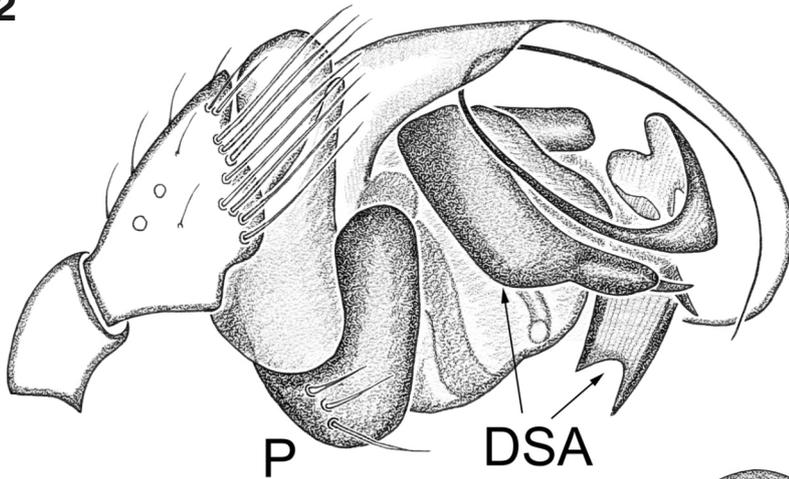
Etymology: The new species is dedicated to the well-known British arachnologists: John Murphy (1922–2021) and Frances Murphy (1926–1995), his wife and faithful companion during arachnological collecting trips.

Diagnosis: The male of the new species can be easily distinguished from that of *L. versa*, the only known male in the genus, by the undivided palpal tibia (Figs. 22, 25; cf. fig. 52 in Locket 1982), the presence of the huge paracymbium with the split proximal part (Fig. 22; cf. fig. 47 in Locket 1982), as well as by the large, complex and extremely sclerotized distal suprategular apophysis (Figs. 22, 26; cf. figs. 47, 50 in Locket 1982). The female differs from all the congeners in having a wider protrusion situated on the posterior

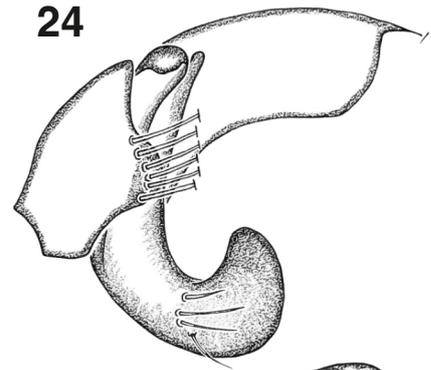
edge of the epigyne and the longer copulatory ducts (Figs. 9–11, 13; cf. figs. 53–54 in Locket 1982).

Description of holotype male: Total length 2.10. Carapace modified, behind ocular area with elevation carrying small rounded sulci; 1.00 long, 0.83 wide, reddish-dark brown, eyes not enlarged (Figs. 5–6). Chelicerae 0.40 long, a mastidion absent. Legs brown to pale brown, its distal parts darkened. Leg I 4.07 long (1.10 + 0.28 + 1.08 + 0.98 + 0.63), IV 3.61 long (1.00 + 0.25 + 0.93 + 0.88 + 0.55). Chaetotaxy 2.2.1.1, spines 2–3 times as long as a diameter of corresponding leg segment; metatarsi spineless. All metatarsi with a trichobothrium. TmI 0.66. Palp (Figs. 22–27): Tibia short, with a small and wide projection retrolaterally. Retrolateral side of tibia with a row of closely

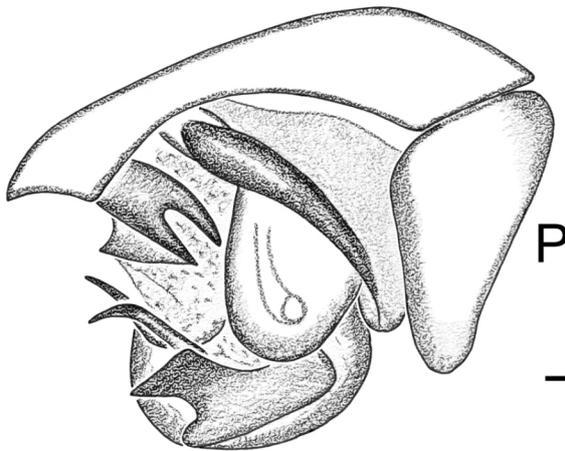
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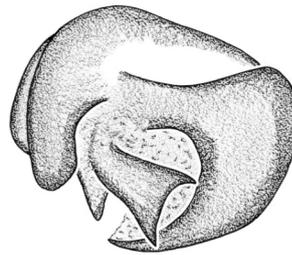
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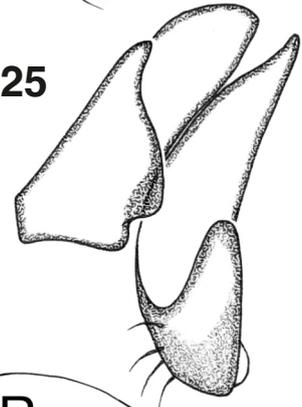
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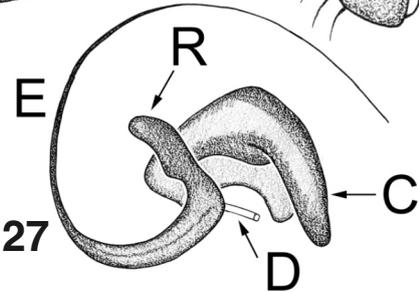


25



0.2 mm

27



Figs. 22–27: *Locketina murphyorum* sp. n., paratype, male palp. **22** right palp, retrolateral view; **23** same, prolateral views; **24** palpal tibia, paracymbium and proximal part of cymbium, retrolateral view; **25** palpal tibia and paracymbium, antero-retrolateral view; **26** distal suprategular apophysis, frontal view; **27** embolic division, dorsal view. Scale bar = 0.2 mm.

spaced strong spines. Paracymbium huge, hook-shaped, its proximal part splits into two parts. Median membrane reduced. Distal suprategular apophysis huge, strongly sclerotized, twisted into a loop, with several apophyses. Embolic division relatively simple. Radix small, embolus thin, coiled. Convector much larger than radix, shapeless. Abdomen 1.10 long, 0.63 wide, dorsal pattern as in Fig. 4.

Description of paratype female (MMUE, G7572.4043): Total length 2.45. Carapace unmodified, 0.95 long, 0.78 wide, greyish-brown, eyes not enlarged (Figs. 7, 12). Chelicerae 0.40 long, a mastidion absent. Legs brown to pale brown, its distal parts somewhat darkened. Leg I 3.91 long (1.10 + 0.28 + 1.00 + 0.90 + 0.63), IV 3.56 long (1.00 + 0.28 + 0.88 + 0.85 + 0.55). Chaetotaxy 2.2.1.1, spines 2–3 times as long as a diameter of corresponding leg segment; metatarsi spineless. All metatarsi with a trichobothrium. TmI 0.62.

Abdomen 1.50 long, 1.05 wide, dorsal pattern as in Figs. 7, 12. Epigyne wide, with a short protruding on its posterior edge; copulatory ducts go in lateral sides of epigyne, distally looped; receptacles subspherical (Figs. 9–11, 13).

Variability: The postocular elevation of the carapace in the male paratype is steeper than in the holotype (Figs. 4–5;

cf. Fig. 8); the abdominal patterns of female paratypes are slightly different (Fig. 7 versus Fig. 12).

Distribution: Known only from Borneo, East Malaysia.

Locketina versa (Locket, 1982) (Figs. 28–30)

Kuala versa Locket, 1982: 370, figs. 44–54, ♂♀.

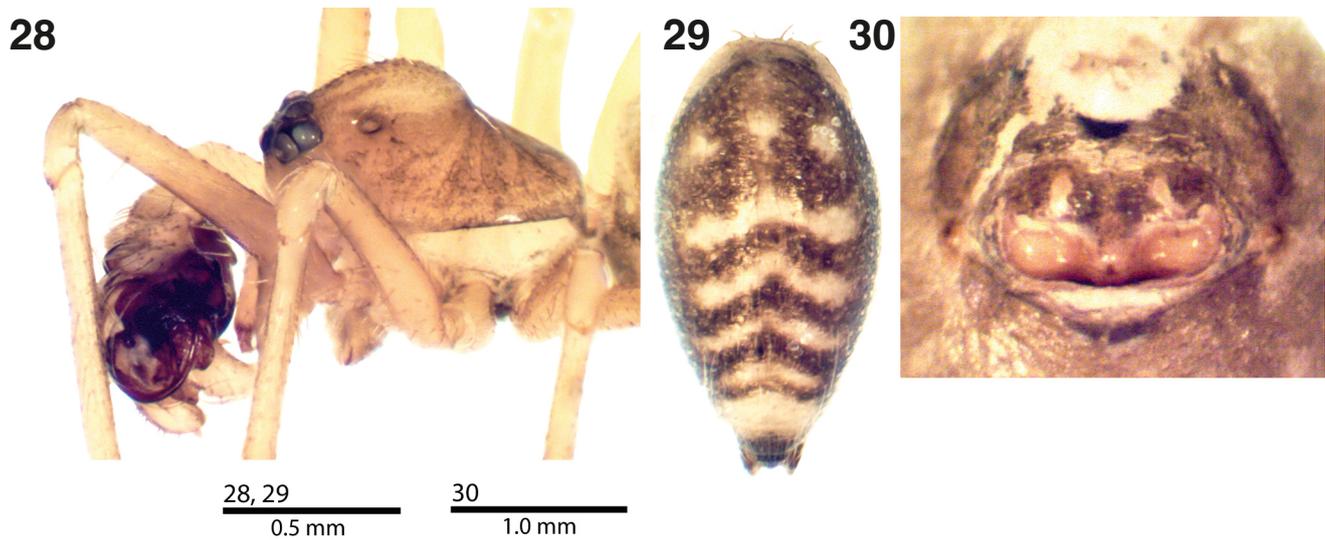
Material: 2♂, 2♀ (MMUE, G7572.21401), WEST MALAYSIA: W. Pahang, Genting, 600 m, secondary jungle, 03 December 1990, J&FM, det. JM, 1991, as *Kuala versa*, #19110.

Distribution: The species is known from West Malaysia (Locket 1982, present data).

Microbathyphantes minimus (Locket, 1982), comb. n.

Kaestneria minima Locket, 1982: 378, ♂♀, figs. 90–95.

Material: 1♀ (MMUE, G7572.12022), INDONESIA: Bali, Ubud, Monkey Forest, 200 m, remnant rainforest, 16



Figs. 28–30: *Locketina versa* (Locket, 1982) from Genting. **28** prosoma of male, lateral view; **29** abdomen, dorsal view; **30** epigyne, ventral view.

November 1997, J&FM, det. JM, 1997, as *Erigonine*. #23104.

Remarks: The species was originally described from both sexes under *Kaestneria* Wiehle, 1956 from the vicinity of Kuala Lumpur, West Malaysia (Locket 1982). The structure of the embolic division and the shape of the epigyne are evidence that this species seems to be better assigned to the genus *Microbathyphantes* van Helsdingen, 1985: *Microbathyphantes minimus* (Locket, 1982) comb. n. This species seems to be most similar to *M. celebes* Tanasevitch, 2012 known from Sulawesi, Indonesia (Tanasevitch & Stenchly 2012). The male of *M. minimus* differs in the shape of the embolic plate (cf. fig. 92 in Locket 1982 and figs. 19 & 22 in Tanasevitch & Stenchly 2012). The female can be distinguished by the shape of the epigynal cavity (cf. fig. 95 in Locket 1982 and figs. 24–25 in Tanasevitch & Stenchly 2012).

Distribution: Known from West Malaysia (Locket 1982), and now from Bali, Indonesia (present data).

Nasoona asocialis (Wunderlich, 1974)

Material: 2♀ (MMUE, G7572.12133), INDONESIA: Bali, Batukaru, rainforest, 1000 m, 19 November 1997, J&FM, det. JM, as *Erig.*, #23166.

Distribution: The species has been known under numerous combinations (see Tanasevitch 2014a, 2020b) and is widespread in the Oriental Region: the Nepal Himalayas (Wunderlich 1974, Tanasevitch 1998, 2021a); India (Tanasevitch 2011); Laos; Thailand; West Malaysia (Tanasevitch 2014a, b); Myanmar; Bali and Java, Indonesia (Tanasevitch 2017a, b, present data); northern Vietnam (Tu & Li 2004); Xishuangbanna Province, southern China (Zhao & Li 2014).

Nasoona chrysanthusi Locket, 1982

Material: 2♀, 1 juv. (MMUE, G7572.16504), WEST MALAYSIA: W. Pahang, Genting, 700 m, Barlow's garden, 01 February 1988, J&FM, det. JM, 1991, as *Nasoona chrysanthusi*, #15068; 3♂, 2♀ (MMUE, G7572.21316), Genting, 600 m, secondary jungle, 27 November 1990, J&FM, det. JM, 1991, as *N. chrysanthusi*, #19009; 1♀ (MMUE, G7572.12456), Genting, 700 m, shrubs, February 2001, J&FM, det. JM, 2001, as *Nasoona?*, #23804; 1♀ (MMUE, G7572.12437), same locality, shrubs, February 2001, J&FM, det. JM, 2001, as *Linyphiidae*, #23778.

Distribution: Known from West Malaysia (Locket 1982, present data); Singapore (Tanasevitch 2014b), and Sumatra, Indonesia (Tanasevitch 2018a).

Nasoona crucifera (Thorell, 1895)

Erigone crucifera Thorell, 1895: 110, ♀, examined.

Erigone occipitalis Thorell, 1895: 114, ♂, examined & synonymized by Tanasevitch 2010:104.

Erigone gibbicervix Thorell, 1898: 315, ♂, examined & synonymized by Tanasevitch 2010: 104.

Trematocephalus eustylis Simon, 1909: 98, figs. 1–2, ♂, examined & synonymized by Tanasevitch 2010: 104.

Trematocephalus bivittatus Simon, 1909: 98, ♀, synonymized by Tu & Li 2004: 426.

Nasoona prominula Locket, 1982: 366, figs. 22–32, ♂♀, **syn. n.**

Material: 1♀ (MMUE, G7572.16341), CHINA: Hong Kong, Aberdeen Park, 2–300 m, shrubs, litter, etc., 01 March 1988, J&FM, det. JM, 1988, #15681; 3♂, 2♀ 1juv. (MMUE, G7572.16354), Hong Kong, Lamma Island, 100 m, shrubs, litter, etc., 04 March 1988, J&FM, det. JM, 1988, #15707. 1♂, 3♀ (MMUE, G7572.7504), WEST MALAYSIA: W. Pahang, Genting, Barlow's garden, 700 m, 18 August 1979, J&FM, det. JM, 1991, #8403; 1♂, 1♀ 1juv. (MMUE, G7572.7542), Barlow's garden, 700 m, 18 August 1979, J&FM, det. JM, 1991, #8450; 1♀ (MMUE,

G7572.16505), Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, #15069; 1♀ (MMUE, G7572.21291), Genting, 600 m, secondary jungle, 26 November 1990, J&FM, det. JM, 1991, #18975; 1♂ (MMUE, G7572.21318), Genting, 600 m, secondary jungle, 27 November 1990, J&FM, det. JM, 1991, #19011; 1♂ (MMUE, G7572.21381), Genting, 600 m, secondary jungle, 01 December 1990, J&FM, det. JM, 1991, #19085. 1♂ (MMUE, G7572.6493), Johor, Layang-Layang, 100 m, Corley's garden, 21 July 1979, J&FM, det. JM, 1991, #7667; 1♂ (MMUE, G7572.6535), Layang-Layang, 100 m, remnant jungle, 23 July 1979, J&FM, det. JM, 1991, #7727; 1♂ (MMUE, G7572.15641), Gunong Pulai, 100 m, roadside vegetation, 19 January 1986, J&FM, det. JM, 1991, #13240; 2♂, 3♀ (MMUE, G7572.7217), Ulu Dusun, 100 m, 04 August 1979, garden, jungle edge, J&FM, det. JM, 1991, #8110; 1♀ (MMUE, G7572.7238), Ulu Dusun, 100 m, garden, jungle edge, 06 August 1979, J&FM, det. JM, 1991, #8146; 2♂ (MMUE, G7572.7239), Ulu Dusun, 100 m, garden, jungle edge, 06 August 1979, J&FM, det. JM, 1991, #8147; 2♂, 2♀ (MMUE, G7572.7275), Ulu Dusun, 100 m, garden, jungle edge, 07 August 1979, J&FM, det. JM, 1991, #8197; 1♂, 2♀ (MMUE, G7572.7432), Penang, 100 m, hill road, shrubs, 13 August 1979, J&FM, det. JM, 1991, #8314. 1♂ (MMUE, G7572.12020), EAST MALAYSIA, Sabah, Kota Kinabalu, 50 m, garden (Holmes), 28 July 1979, J&FM, det. JM, 1991, #7833. 1♀ (MMUE, G7572.20411), BRUNEI: Labi NP, 02 August 1990, J&FM, det. JM, 1991, #18930. 1♂ (MMUE, G7572.12020), INDONESIA: Bali, Ubud, Monkey Forest, 200 m, remnant rainforest, 16 November 1997, J&FM, det. JM, 1997, #23102. All specimens were earlier identified by J. Murphy as *Nasoona prominula*.

Remarks: A large number of the examined specimens of *N. crucifera* and *N. prominula* (see Tanasevitch 2010, 2014a,b, 2017, 2018, present data) are evidence that these species are conspecific. Small differences in the shape of the palpal tibia, the structure of sclerites of the embolic division (mainly the shape of the proximal part of the convector and the shape of the paraconvector), as well as the structure of the epigyne in both species are the result of insignificant individual variability or different drawing angle on pictures. Previously, I was confused with a small, sharp beak on the anterior wall of the epigyne in *N. prominula* (see fig. 30 in Locket 1982). The examination of many specimens, including those from the type locality, have proved that this character also varies, with the beak being absent from most specimens collected from different localities. Thus, it is safe to conclude that the name *Nasoona crucifera* (Thorell, 1895) is a senior subjective synonym of *N. prominula* Locket, 1982 **syn. n.**

Distribution: The species is widespread in the Oriental Region, being recorded from India; Myanmar; Thailand; Laos; Vietnam; China including Taiwan and Hong Kong; West Malaysia; Singapore; Borneo and Sumatra, Indonesia (World Spider Catalog 2021).

Nasoona locketi Millidge, 1995

Material: 1♂, 3♀ (MMUE, G7572.13013), INDONESIA: Bali, Negara, rainforest, 500 m, 21 November 1997, J&FM, det. JM, 1997, as Linyphiine, #23221; 1♂ (MMUE, G7572.12019), Bali, Ubud, Monkey Forest, 200 m, remnant rainforest, 16 November 1997, J&FM, det. JM, 1997, as Erig., #23101.

Distribution: The species was known from both sexes from Krakatoa (Millidge, 1995), and now is found in West Malaysia, as well as on Bali, Indonesia (present data).

Neriere birmanica (Thorell, 1887)

Material: 3♂, 3♀ (MMUE, G7572. number is not included), INDONESIA: Bali, Lake Batur, 1000 m, dry scrub, 18 November 1997, J&FM, det. JM, 1997, as *Neriere/Linyphia?*, #23130.

Distribution: Kashmir; India; Myanmar; Laos; China; Bali, Indonesia (World Spider Catalog 2021).

Neriere macella (Thorell, 1898)

Material: 1♂ (MMUE, G7572.7496), WEST MALAYSIA: W. Pahang, Genting, Barlow's garden, 700 m, 18 August 1979, J&FM, det. JM, 1991, #8389; 3♀ (MMUE, G7572.20366), Genting, Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, #15317; 1♀ (MMUE, G7572.17342), same locality and date, J&FM, det. JM, 1991, #15206; 1♂ (MMUE, G7572.16537), same locality and date, J&FM, det. JM, 1991, #15107; 1♂, 2♀ (MMUE, G7572.21351), Genting, secondary jungle, 600 m, 29 November 1990, det. JM, 1991, #19052; 1♂ (MMUE, G7572.21464), Genting, secondary jungle, 600 m, 08 December 1990, J&FM, det. JM, 1991, #19187; 1♀ (MMUE, G7572.15650), Johor, Gunong Pulai, 100 m, roadside vegetation, 19 January 1986, det. JM, 1991, #13249. 3♀ (MMUE, G7572.4041), EAST MALAYSIA, Sabah, Mt Kinabalu, 1800 m, 22 January 1976, E. Classey, det. JM, 1991, #5246; 3♂, 4♀ (MMUE, G7572.6653), Kinabalu N.P., 1800 m, rainforest paths, 30 July 1979, J&FM, det. JM, 1991, #7876; 2♀, 1♂ subad. (MMUE, G7572.6775), Mt Kinabalu, 1800 m, streamside, 02 August 1979, J&FM, det. JM, 1991, #8030. All specimens were earlier identified by J. Murphy as *Neriere macella*.

Distribution: Known from the Seychelles to Hainan, China and Philippines; West Malaysia; Sumatra and Java, Indonesia (World Spider Catalog 2021), and now recorded from Sabah, East Malaysia for the first time (present data).

Pahangone mirabilis Tanasevitch, 2018

Material: 1♀ (MMUE, G7572.12441), WEST MALAYSIA: W. Pahang, Genting, 700 m, shrubs, February 2001, J&FM, det. JM, 2001, as *Nasoona?*, #23782.

Distribution: Known from both sexes from Pahang State, West Malaysia (Tanasevitch 2018b, present data).

***Parameioneta spicata* Locket, 1982**

Material: 1♂, 1♂subad. (MMUE, G7572.15958), WEST MALAYSIA: W. Pahang, Genting, Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, as *Meioneta*, #19332; 1♀ (MMUE, G7572.16502), Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, as *Parameioneta spicata*, #15066; 1♀ (MMUE, G7572.16135), Barlow's garden, 700 m, 01 February 1988, J&FM, det. JM, 1991, as *P. spicata*, #15373; 2♂, 2♀ (MMUE, G7572.21365), Genting, 600 m, secondary jungle, 30 November 1990, det. JM, 1991, as *P. spicata*, #19068.

Distribution: Known from West Malaysia (Locket 1982, Tanasevitch 2017b, present data), and Thailand (Tanasevitch 2017b).

***Plectembolus quadriflectus* Millidge & Russell-Smith, 1992**

Type: Holotype ♂ (MHNG), Bohorik, Gunung Leuser, northern Sumatra, Indonesia, 10 March 1993, C. Deeleman.

Material: 1♂ (MMUE, G7572.6534), WEST MALAYSIA: Johor, Layang-Layang, 100 m, remnant jungle, 23 July 1979, J&FM, det. JM, 1991, as *Mecynidis*, #7726; 1♂, (MMUE, G7572.6572), same locality, 25 July 1979, J&FM, det. JM, 1991, as *Mecynidis*, #7778.

Distribution: The species is known from Sumatra, Indonesia (Millidge & Russell-Smith 1992), East and West Malaysia (Tanasevitch 2017a, present data).

***Plectembolus triflectus* Millidge & Russell-Smith, 1992**

Type: Holotype ♂ (MHNG), Templars Park, Kuala Lumpur, Malaysia, 29 July 1980, C. Deeleman.

Material: 1♂ (MMUE, G7572.6781), EAST MALAYSIA: Sabah, Kinabalu NP, 1800 m, streamside, 02 August 1979, J&FM, det. JM, 1991, as *Mecynidis*, #8038; 2♂ (MMUE, G7572.7297), Sabah, Ulu Dusun, 100 m, jungle, shrubs, etc., 08 August 1979, J&FM, det. JM, 1991, as *Mecynidis*, #8229.

Distribution: Known from West Malaysia (Millidge & Russell-Smith 1992), and now from Sabah, East Malaysia (present data).

***Prosoponoides kaharianum* Millidge & Russell-Smith, 1992**

Type: Holotype ♀ (MHNG), Kaharian, Central Kalimantan, Indonesia, 02 September 1985, C. Deeleman.

Material: 1♀ (MMUE, G7572.17945), INDONESIA: Java, Bogor, December 1986, J&FM, det. JM, 1987, as *Linyphia?*, #14960.

Distribution: The species was known from Borneo, Indonesia (Millidge & Russell-Smith 1992), and now from Java, Indonesia.

***Prosoponoides sinense* (Chen, 1991)**

Material: 1♂ (MMUE, G7572.17310), WEST MALAYSIA: W. Pahang, Genting, 1000 m, moss forest, 06 February 1988, J&FM, det. JM, 1991, as *Neriene*, #15168.

Distribution: Known from Fujian, Hainan and Zhejiang provinces, China; Vietnam (Chen *et al.* 2020), and now from Pahang, West Malaysia (present data).

***Tapinopa undata* Zhao & Li, 2014**

Material: 3♂, 3♀ (MMUE, G7572.21382), WEST MALAYSIA: W. Pahang, Genting, 600 m, secondary jungle, 01 December 1990, J&FM, det. JM, 1991, as *Tapinopa*, #19086.

Distribution: The species was known from the Yunnan Province, China (Zhao & Li 2014), and now from Pahang, West Malaysia (present data).

***Theoa vesica* Zhao & Li, 2014**

Material: 1♂, 1♀ (MMUE, G7572.20383), WEST MALAYSIA: W. Pahang, Genting, 700 m, Barlow's garden, 01 February 1988, J&FM, det. JM, 1991, as *T. tricaudata*, #15338; 1♂ (MMUE, G7572.21317), Genting, 600 m, secondary jungle, 27 November 1990, J&FM, det. JM, 1991, as *Theonina* sp., #19010; 1♀ (MMUE, G7572.21367), Genting, 600 m, secondary jungle, 30 November 1990, J&FM, det. JM, 1991, as Linyphiidae, #19070.

Distribution: The species was known from the Yunnan Province, China (Zhao & Li 2014), and now from Pahang, West Malaysia (present data).

Unidentified taxa

A few taxa from the Murphy collection (31 adult specimens from 22 tubes) remained unidentified. Most of these are females, of which identification is problematic or impossible without examining the opposite sex. It is also quite possible that they may belong to undescribed females of the already known species. These samples require a special attention in the future.

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