

## New and poorly known species of *Bowie* Jäger, 2022 (Araneae: Ctenidae) from Southeast Asia



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### Abstract

Three new species, *B. catopuma* **sp. nov.** (♀) (Borneo, Malaysia), *B. musang* **sp. nov.** (♂♀) and *B. tangalunga* **sp. nov.** (♂) (both from Mindanao, Philippines), are described. Species of *shakeit* group are recorded outside of Borneo for the first time (Philippines). The females of *Bowie neukoeln* Jäger, 2022 and *Bowie shakeit* Jäger, 2022, and the male of *B. hosei* (F.O. Pickard-Cambridge, 1897) are redescribed. Detailed descriptions, digital photographs and a distributional map are provided.

**Key words:** Biodiversity, Borneo, Malaysia, Philippines, taxonomy, tropical wolf spiders

### Introduction

The family Ctenidae Keyserling, 1877, commonly known as tropical wolf spiders or wandering spiders, currently comprises 610 species in 49 genera worldwide (World Spider Catalog 2024). Ctenid spiders primarily inhabit tropical and subtropical regions and are nocturnal, free-ranging hunters that do not use webs to capture their prey (Jocqué & Dippenaar-Schoeman 2006).

With 116 species (World Spider Catalog 2024) *Bowie* Jäger, 2022 is the second-largest genus within the Ctenidae, surpassed only by *Ctenus* Walckenaer, 1805. *Bowie* species are mainly distributed in the Indo-Malayan and Australasian realms, except for *B. corniger* (F.O. Pickard-Cambridge), known from South Africa (World Spider Catalog 2024). However, such disjunction may result from misinformation on original labels or human introduction (Jäger 2022). The majority of *Bowie* species (86) are found in Southeast Asia, with 22 in South Asia (India, Sri Lanka, Nepal) and seven in East Asia (China, Japan, Taiwan). Additionally, one undescribed species is reported from Northern Australia (Jäger 2022).

Regional revisions of this genus are lacking. Prior to the revision by Jäger (2022), information on Chinese and Indian *Bowie* species (sub *Ctenus*) was scattered across several papers (Bastawade & Borkar 2008; Chu *et al.* 2022a; Sankaran & Sebastian 2018; Tikader & Malhotra 1981). One Taiwanese species, now included in *Bowie* [*B. yaeyamensis* (Yoshida)], has been thoroughly redescribed by Marusik & Omelko (2016). In the same study, the male of *Bowie yassassin* Jäger was depicted under the name *B. yaeyamensis* (Jäger 2022). Several species have been described from Southeast Asia (Jäger & Minn 2015; Jäger 2012, Ono 2010; all sub *Ctenus*). The genus recently underwent a global revision by Jäger (2022), who described 55 species as new to science, transferred 49 species from *Ctenus* to *Bowie*, and organized the majority of species into distinct species groups. Subsequently, a further 13 species from Malaysia, Vietnam, Indonesia and China were added to *Bowie* (Chu *et al.* 2022b; Lu *et al.* 2022; Omelko & Fomichev 2023; Logunov 2024, Wang 2024). Consequently, out of the 116 species comprising *Bowie*, 63 were originally described within the genus, while the remaining 49 were transferred from *Ctenus*.

A study of ctenids collected throughout Southeast Asia and housed in the collection of the Far Eastern Federal University (Vladivostok) identified six species belonging to *Bowie*, three of which did not match any known species and the other three were previously known only from a few taxonomic entries. The primary objective of this paper is to describe these newly discovered species and to redescribe poorly known ones.

## Material and methods

Specimens were photographed using a Nikon DSRi2 camera attached to a Nikon SMZ25 stereomicroscope at the Far Eastern Federal University (Vladivostok, Russia). Photographs were taken in dishes filled with ethanol, with soft white paper or cotton at the bottom. Digital images were montaged using Zerene Stacker (<https://zerenesystems.com/cms/stacker>) software package. Epigynes were cleared in a KOH/water solution. Distribution map was produced using SimpleMappr (Shorthouse 2010). All measurements are in millimeters. Length of leg segments were measured on the lateral side. Palp and leg spination is based on examination of one specimen of each species (both sides of the body). Spination pattern is given in the following formula: the sum of all spines is listed for the dorsal, prolateral and retrolateral sides; ventral spines are counted including apical ones. All examined material is deposited in the Zoological Museum of the Moscow State University, Moscow, Russia (ZMMU; curator K.G. Mikhailov) and Federal Scientific Center of East Asia Terrestrial Biodiversity, Vladivostok (IBSS; curator M.M. Omelko). Abbreviations used in text and the format of description follow Jäger (2022), with some modifications.

## Abbreviations:

Eyes: ALE—anterior lateral eye, AME—anterior median eye, MOA—median ocular area, PLE—posterior lateral eye, PME—posterior median eye.

Leg segments: Fe—femur, Mt—metatarsus, Pa—patella, Ti—tibia, Tr—tarsus.

Spination: d—dorsal, p—prolateral, r—retrolateral, v—ventral.

Copulatory organs: *AA*—apical arm of embolus, *BA*—basal arm of embolus, *C*—conductor, *CS*—cymbial spur, *EH*—embolic hook, *Em*—embolus, *FD*—fertilization duct, *LT*—lateral tooth, *MC*—anterior constriction of median plate, *MP*—median plate of epigyne, *PP*—prolateral part of embolic tip, *RP*—retrolateral part of embolic tip, *RPO*—retro-proximal cymbial outgrowth, *RTA*—retrolateral tibial apophysis, *Sp*—spermatheca, *TA*—tegular apophysis, *Te*—tegulum, *TH*—tegular hump, *TO*—tegular apophysis outgrowth, *VF*—vulval folds.

## Taxonomy

### Family Ctenidae Keyserling, 1877

### Genus *Bowie* Jäger, 2022

**Diagnosis.** The genus was established by Jäger (2022) to accommodate species characterized by males with fused palpal patellar crack, single *RTA*, non-filiform embolus, and lacking palpal patellar apophyses. Females of *Bowie* exhibit two vulval folds covering copulatory ducts [refer to the full genus diagnosis in Jäger (2022)].

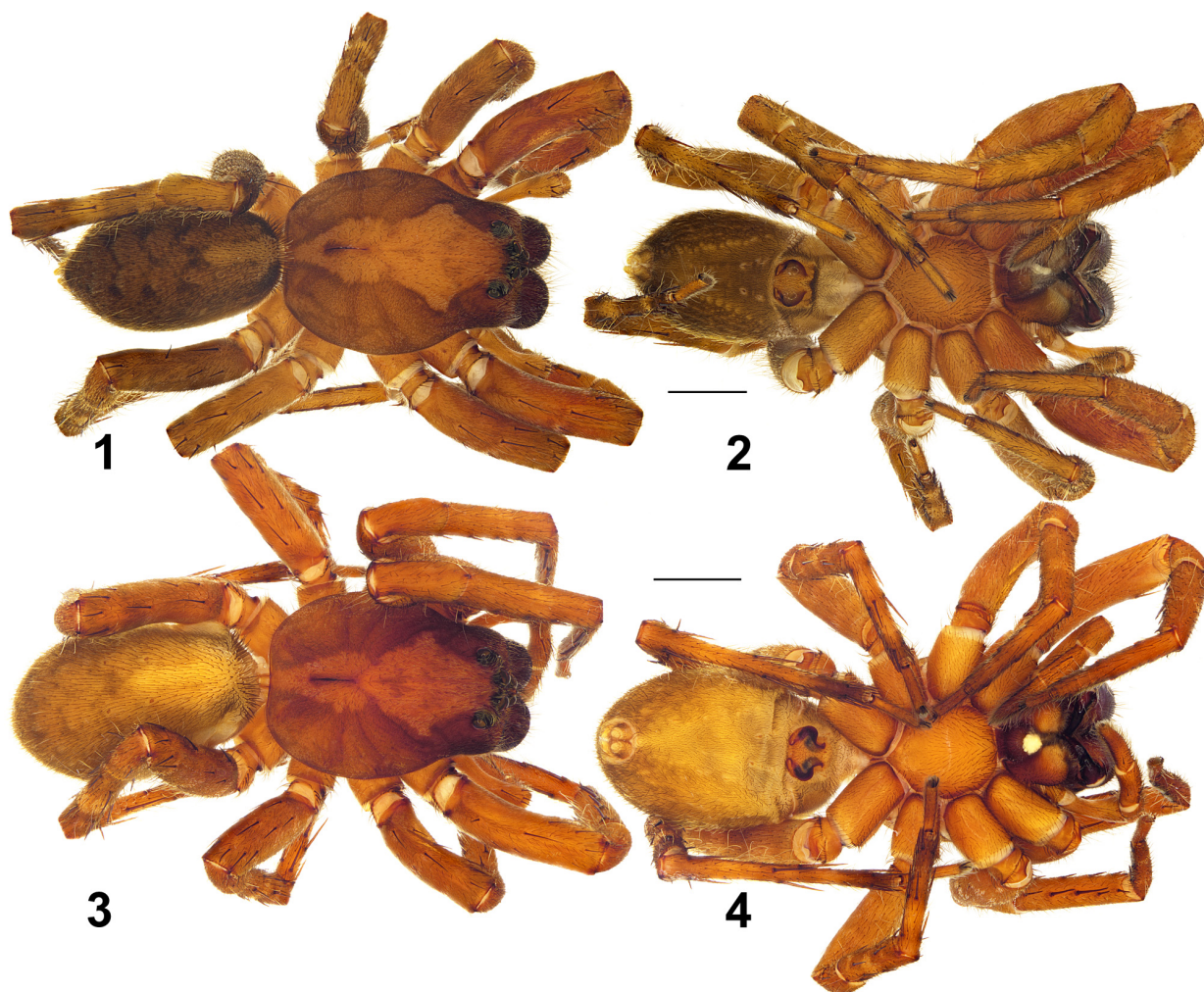
### *scarymonsters*-species group

#### *Bowie neukoeln* Jäger, 2022

(Figs 1–2, 5–8, 68–69)

*B. neukoeln* Jäger, 2022: 98, figs 440–446, 448–460 (♂♀), not examined.

**Material examined.** MALAYSIA: *Sabah State*: ♀ (ZMMU), Borneo, Crocker Range Ridge [5°24'N, 116° 6'E], 1050 m, 28 February 1993, A.M. Emelyanov leg.



**FIGURES 1–4.** Female habitus of *Bowie neuukoeln* Jäger (1–2) and *B. catopuma* **sp. nov.** (3–4). 1, 3—dorsal; 2, 4—ventral. Scale bars: 2 mm.

**Diagnosis.** Females of *B. neuukoeln* are similar to those of *B. scarymonsters* Jäger, 2022 and *B. binturong* Omelko & Fomichev, 2023 by shape of median plate (*MP*) and spermathecae (*Sp*) as well as position of lateral teeth (*LT*). It can be distinguished from both species by 1) having posterior pocket (*pit*) of epigyne (vs. absence; cf. Fig. 8 and Jäger 2022: fig. 467, Omelko & Fomichev 2023: fig. 54); 2) spermathecae separated by gap equal to ca. 0.5 their width (vs. 1 and 0.3 of width, respectively; cf. Fig. 7 and Jäger 2022: fig. 468, Omelko & Fomichev 2023: fig. 53).

**Description.** *Female* (Figs 1–2). Total length 11.75. Prosoma 6.16 long, 4.68 wide. Opisthosoma 5.56 long, 2.93 wide. Prosoma brown, with light brown median band. Median band widened and with projections near ocular area. Lateral bands almost invisible. Fovea thin, black. Clypeus brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum brown, without pattern. Labium dark brown. Endites dark brown with yellowish distal edge. Dorsal part of opisthosoma dark brown with distinct yellowish cardiac mark and a series of black spots. Lateral sides of opisthosoma yellowish brown. Ventral part of opisthosoma dark brown with small yellowish spots forming two V-marks. Spinnerets dark brown.

Eye diameters: AME 0.26, ALE 0.19, PME 0.40, PLE 0.34; interdistances: AME–AME 0.21, AME–ALE 0.41, PME–PME 0.25, PME–PLE 0.47, AME–PME 0.11, ALE–PLE 0.24. Clypeus height at AME 0.14, at ALE 0.54.

For palp and legs measurements see Table 1. Palp coloration: all joints light brown. Leg coloration: femora I brown with yellow longitudinal stripe retrolaterally; II–IV brown with poorly visible yellow spots. Patellae I–IV brown. Tibiae I–II light brown; III–IV light brown with poorly visible yellow semi-rings. Metatarsi I–II light brown; III–IV light brown with poorly visible yellow semi-rings. Tarsi I–IV light brown. For palp and legs spination see Table 2.

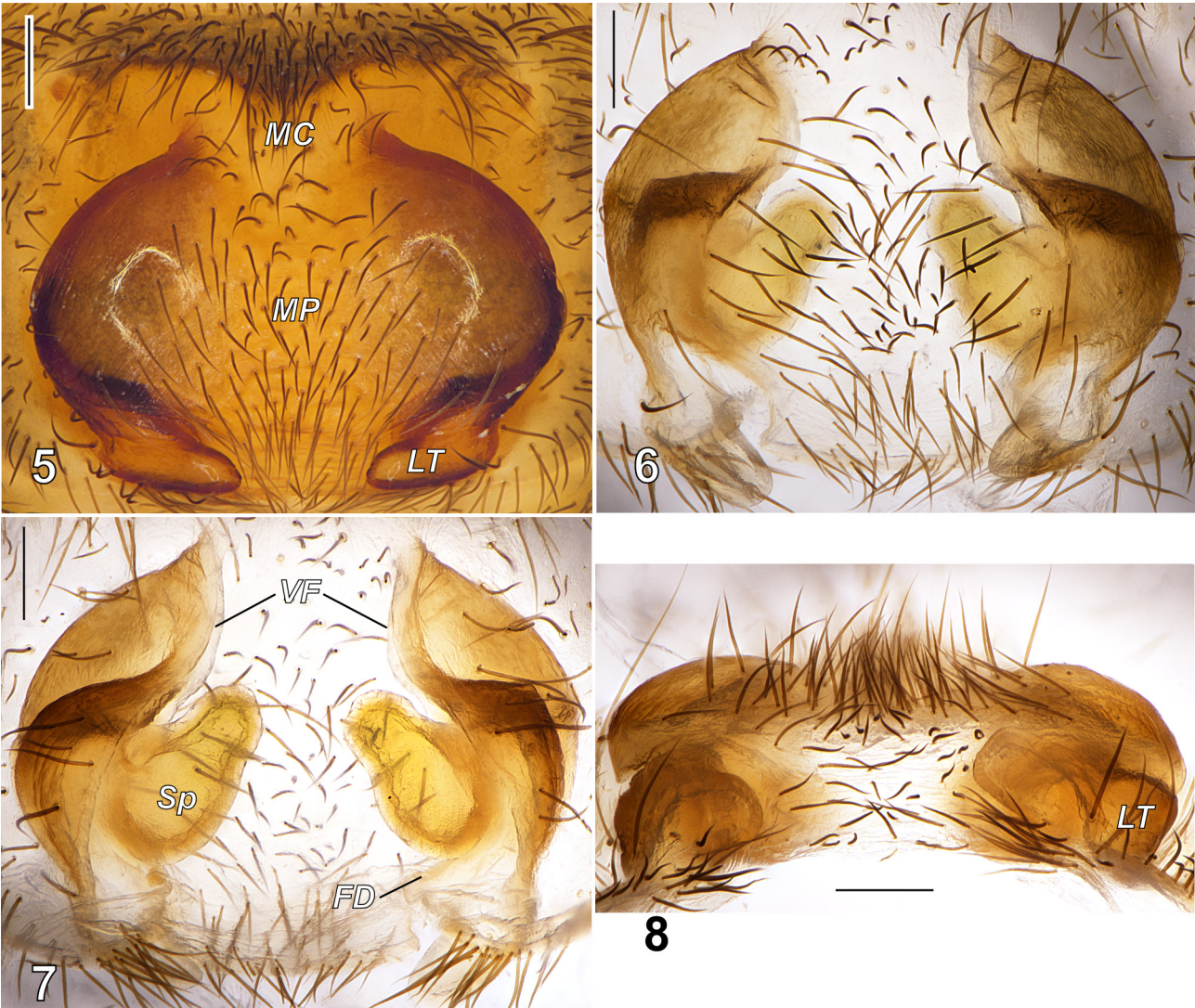


**TABLE 1.** Palp and legs measurements of female of *Bowie neukoeln* Jäger, 2022

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.17 | 1.03 | 1.30 | -    | 1.42 | 5.92  |
| I    | 4.17 | 2.20 | 3.77 | 3.15 | 1.28 | 14.57 |
| II   | 3.97 | 2.24 | 3.36 | 2.93 | 1.13 | 13.63 |
| III  | 2.29 | 1.67 | 2.61 | 2.79 | 1.22 | 10.58 |
| IV   | 4.54 | 1.83 | 4.00 | 4.83 | 1.37 | 16.57 |

**TABLE 2.** Palp and legs spination for the female of *Bowie neukoeln* Jäger, 2022

|      | Fe          | Pa        | Ti                    | Mt             |
|------|-------------|-----------|-----------------------|----------------|
| Palp | 3d 1p 1r    | 1p        | 2p 2r                 | -              |
| I    | 3d 3p 3(2)r | spineless | 2-2-2-2-2v            | 2-2-2v         |
| II   | 3d 4(2) 2r  | spineless | 1r 2-2-2-2-2v         | 2-2-2v         |
| III  | 3d 4p 3(4)r | 1p 1r     | 2d 2p 2r 2-2-2v       | 4p 4r 2-2-2v   |
| IV   | 3d 3(4)p 2r | 1p 1r     | 1(3)d 2p 2r 2(1)-2-2v | 4p 4r 2-1-2-2v |



**FIGURES 5–8.** Epigyne of *Bowie neukoeln* Jäger. 5—intact epigyne, ventral; 6—ditto, macerated, ventral; 7—internal genitalia, dorsal; 8—ditto, posterior. Scale bar: 0.2 mm. Abbreviations: *FD*—fertilization duct, *LT*—lateral tooth, *MC*—anterior constriction of median plate, *MP*—median plate of epigyne, *Sp*—spermatheca, *VF*—vulval folds.



Female genitalia as shown in Figs 5–8. Epigyne 1.4 times wider than long. Median plate (*MP*) with rounded lateral sides, without anterior keel. Lateral teeth (*LT*) well developed, large, located posterior of median plate, with blunt tips (in Figs 6–7 shape and position of *LT* changed due to maceration). Spermathecae (*Sp*) bottle-shaped, separated by ca. half spermatheca's length (position of *Sp* could be slightly affected due to maceration).

**Notes.** *Bowie neukoeln* was previously known from Malay Peninsula only, this record is first for Borneo.

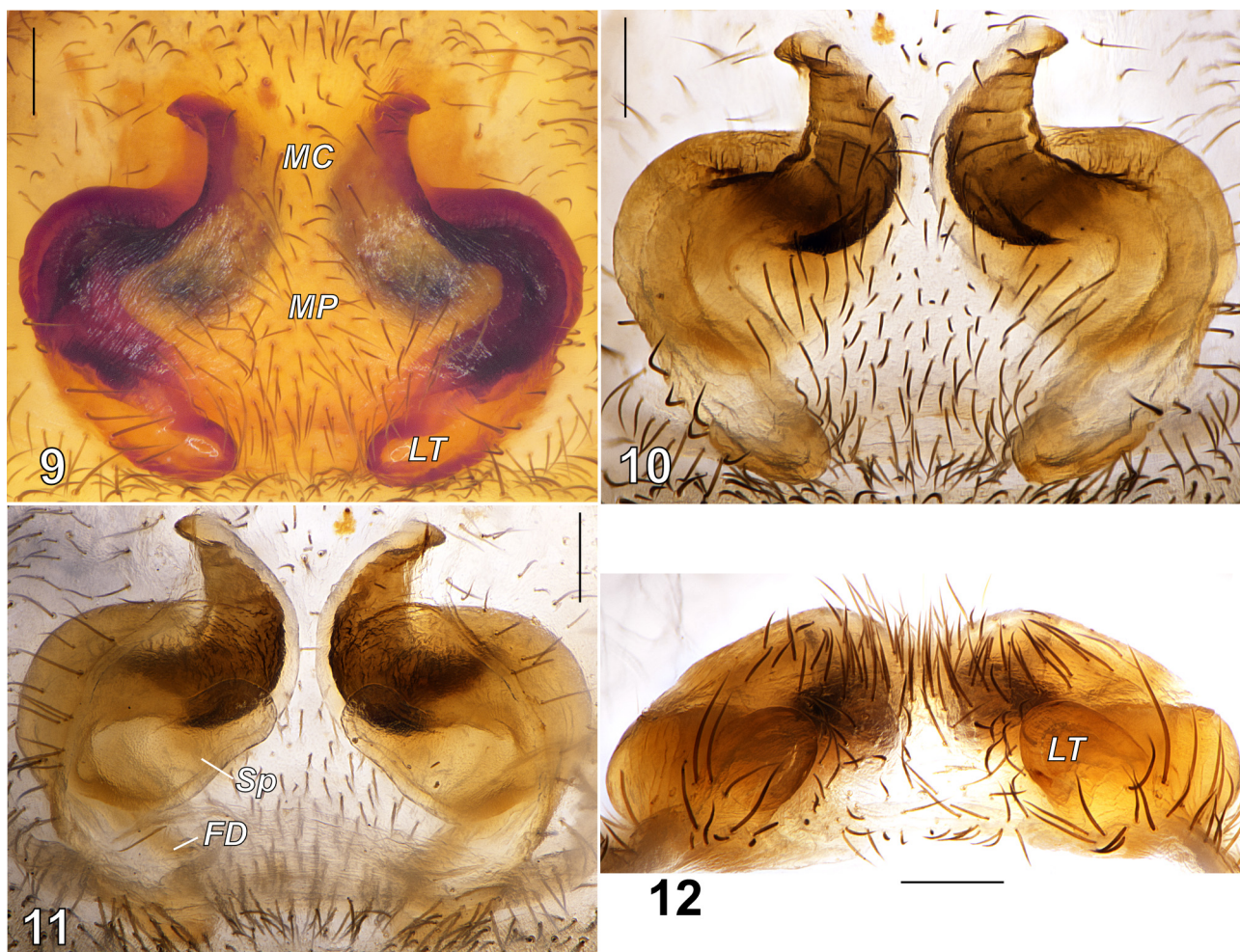
**Distribution.** Malaysia (Malay Peninsula and Borneo: Sabah; Figs 68–69).

***Bowie catopuma* sp. nov.**

(Figs 3–4, 9–12, 68–69)

**Type material. MALAYSIA: Sabah State: Holotype:** ♀ (ZMMU), Borneo, Lucia Mt. [4°28'N, 117°56'E], 1020 m, 30 August 1994, A.M. Emelyanov leg. Paratypes: 2♀ (IBSS) together with the holotype.

**Etymology.** The specific name is derived from the generic name of small wild cat from Southeast Asia, *Catopuma* Severtzov; noun in apposition.



**FIGURES 9–12.** Epigyne of *Bowie catopuma* sp. nov. 9—intact, ventral; 10—macerated, ventral; 11—internal genitalia, dorsal; 12—ditto, posterior. Scale bar: 0.2 mm. Abbreviations: *FD*—fertilization duct, *LT*—lateral tooth, *MC*—anterior constriction of median plate, *MP*—median plate of epigyne, *Sp*—spermatheca.

**Diagnosis.** By shape of the median plate (*MP*) widest anteriorly females of *Bowie catopuma* sp. nov. are similar to those of *B. neukoeln*, but may be easily distinguished by 1) *MP* with long anterior constriction (*MC*) (vs. short; cf. Fig. 9 and Fig. 5); 2) vulval folds (*VF*) almost touching each other (vs. widely spaced; cf. Fig. 10 and Fig. 6).

**Description. Female.** (Figs 3–4). Total length 11.76. Prosoma 5.79 long, 4.28 wide. Opisthosoma 5.37 long, 3.44 wide. Prosoma reddish brown, with brown median band. Median band widened and with projections near

ocular area. Lateral bands absent. Fovea thin, black. Clypeus brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum light brown without pattern. Labium dark brown. Endites dark brown with yellowish distal edge. Dorsal part of opisthosoma light brown with yellowish cardiac mark and series of poorly visible gray spots. Lateral sides of opisthosoma light brown with blurry spots. Ventral part of opisthosoma light brown with yellow spots forming two poorly visible V-marks. Spinnerets light brown.

Eye diameters: AME 0.22, ALE 0.18, PME 0.31, PLE 0.32; interdistances: AME–AME 0.19, AME–ALE 0.38, PME–PME 0.26, PME–PLE 0.42, AME–PME 0.11, ALE–PLE 0.17. Clypeus height at AME 0.14, at ALE 0.51.

For palp and legs measurements see Table 3. Palp coloration: femora, patellae, tibiae light brown; tarsi light brown with darker tip. Leg coloration: femora I–IV light brown with poorly visible spots. Patellae I–IV light brown. Tibiae I–II light brown; III–IV light brown with blurred brown semi-rings. Metatarsi I–II light brown; III–IV light brown with blurred brown semi-rings. Tarsi I–IV light brown. For palp and legs spination see Table 4.

**TABLE 3.** Palp and legs measurements of female of *Bowie catopuma* **sp. nov.**

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.00 | 1.06 | 1.19 | -    | 1.35 | 5.6   |
| I    | 4.08 | 2.17 | 3.77 | 3.10 | 1.00 | 14.12 |
| II   | 3.94 | 2.14 | 3.32 | 2.92 | 1.05 | 13.37 |
| III  | 3.31 | 1.71 | 2.45 | 2.91 | 1.09 | 11.47 |
| IV   | 4.61 | 1.77 | 4.00 | 5.34 | 1.52 | 17.24 |

**TABLE 4.** Palp and legs spination for the female of *Bowie catopuma* **sp. nov.**

|      | Fe          | Pa        | Ti                 | Mt             |
|------|-------------|-----------|--------------------|----------------|
| Palp | 3d 1p 1r    | 1(0)p     | 1d 2p 1r           | -              |
| I    | 3d 3p 3(2)r | spineless | 2-2-2-2-2v         | 2-2-2v         |
| II   | 3d 4p 2r    | spineless | 2-2-2-2-2v         | 2-2-2v         |
| III  | 3d 4p 4r    | 1p 1r     | 3d 2p 2r 2-2v      | 4p 5r 2-2-2v   |
| IV   | 3d 4p 2r    | 1p 1r     | 3(2)d 2p 2r 2-2-2v | 4p 4r 2-1-2-2v |

Female genitalia as shown in Figs 9–12. Epigyne 1.5 times wider than long. Median plate (*MP*) trapezoidal, strongly sclerotized anteriorly. Lateral teeth (*LT*) well developed, located posterior of median plate, slightly extending beyond epigastric furrow, with rounded tips. Spermathecae (*Sp*) large, piriform, separated by a third of spermatheca’s length.

**Notes.** Since males *B. catopuma* **sp. nov.** are unknown, it is difficult to place it in a species group. There are species with a similar shape of median plate and lateral teeth situated at the posterior margin of the epigyne in *chinagirl* and *scarymonsters* species groups. Because the new species have spermathecae consisting of only one compartment, while those in *chinagirl*-group have particularly structured spermathecae, we place *B. catopuma* **sp. nov.** in the *scarymonsters*-species group. Thus, with the description of the new species, this group now consists of five species: *Bowie binturong*, *B. catopuma* **sp. nov.**, *B. neukoeln*, *B. sabah* Li & Yao, and *B. scarymonsters*.

**Distribution.** Type locality only, Borneo: Sabah (Figs 68–69).

### *shakeit*-species group

#### *Bowie musang* **sp. nov.**

(Figs 13–30, 68–69)

**Type material.** PHILIPPINES: *Bukidnon Province*: **Holotype:** ♂ (ZMMU), Mindanao Island, Kitanglad Range. [8°11’N, 124°51’E], 1430 m, 4–9 February 1995, A.M. Emelyanov leg. **Paratypes:** 10♂ 6♀ (ZMMU), together



with the holotype. **Cotabato Province:** 5♂ 6♀ (ZMMU) Apo Mt., [7° 1'N, 125°13'E], 1350 m, 26–30 January 1995, same collector.



**FIGURES 13–16.** Habitus of male (13–14) and female (15–16) of *Bowie musang* sp. nov. 13, 15—dorsal; 14, 16—ventral. Scale bars: 2 mm.

**Etymology.** The specific name is derived from the local name of the Asian palm civet [*Paradoxurus hermaphroditus* (Pallas)], a small predatory beast native to Southeast Asia; name in apposition.

**Diagnosis.** Males of *Bowie musang* sp. nov. resemble those of *B. bluejean* Jäger, 2022, by the shape of the retro-proximal cymbial outgrowth (*RPO*) in ventral view. They are also similar to *B. sarawakensis* (F. O. Pickard-Cambridge, 1897) in having a large, diagonally oriented tegular apophysis (*TA*). Males of the new species can be easily distinguished from both species by the tip of the embolus (*Em*) divided into long apical (*AA*) and short basal (*BA*) arms (vs. single tip; cf. Figs 22, 25 and Jäger 2022: figs 754, 766). By the shape of the median plate (*MP*), females of *Bowie musang* sp. nov. resemble those of *B. criminalworld* Jäger, 2022 by the shape of epigyne median plate, but may be distinguished by 1) significantly shorter carapace and body length (6.11 and 11.97 mm vs. 8 and 16.9 mm), 2) the median plate's width/length ratio 1.6 (vs. 1.2; cf. Fig. 27 and Jäger 2022: fig. 772), 3) spermathecae (*Sp*) separated by a distance 2.7 times less than a the length of a spermatheca (vs. 4 times less; cf. Fig. 29 and Jäger 2022: fig. 774).

**Description.** *Male* (Figs 13–14). Total length 10.70. Prosoma 6.06 long, 4.59 wide. Opisthosoma 4.82 long, 2.99 wide. Prosoma dark brown, with light brown median band. Median band near ocular area widened, with projections and covered with short white setae, bearing couple of gray spots. Lateral bands narrow, light brown. Fovea thin, black. Clypeus light brown. Chelicerae brown proximally, dark brown distally, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum brown, somewhat lighter in the middle. Labium brown. Endites brown with yellowish distal edge. Dorsal part of opisthosoma black with distinct yellowish cardiac mark and series of transverse stripes posterior of it. Lateral sides of opisthosoma gray with yellowish spots. Ventral part of opisthosoma black with yellow spots forming two V-marks (inner mark poorly visible). Spinnerets yellow ventrally, dark brown laterally.

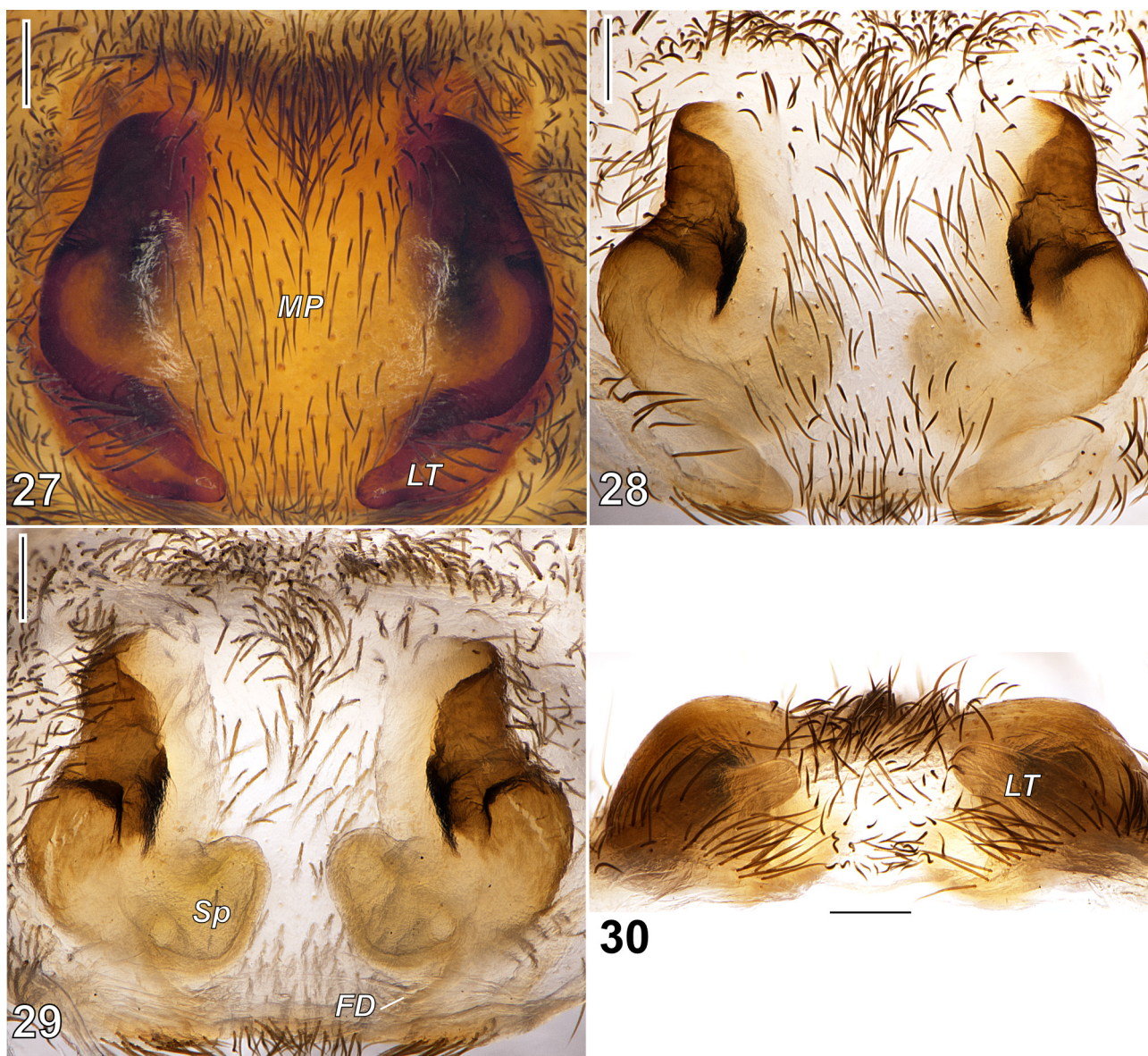
Eye diameters: AME 0.25, ALE 0.15, PME 0.39, PLE 0.32; interdistances: AME–AME 0.11, AME–ALE 0.35, PME–PME 0.22, PME–PLE 0.35, AME–PME 0.06, ALE–PLE 0.19. Clypeus height at AME 0.19, at ALE 0.44.





**FIGURES 17–26.** Palp (17–20), bulb (21–24), embolus (25) and palpal tibia (26) of male of *Bowie musang* **sp. nov.** 17, 21—prolateral; 18, 22, 25—ventral; 19, 23, 26—retrolateral; 20—dorsal, 24—apical. Scale bars: 17–20 = 0.5 mm; 21–24, 26 = 0.2 mm; 25 = 0.1 mm. Abbreviations: *AA*—apical arm of embolus, *BA*—basal arm of embolus, *C*—conductor, *EH*—embolic hook, *Em*—embolus, *RPO*—retro-proximal cymbial outgrowth, *RTA*—retrolateral tibial apophysis, *TA*—tegular apophysis, *Te*—tegulum, *TH*—tegular hump.





**FIGURES 27–30.** Epigyne of *Bowie musang* **sp. nov.** 27—intact, ventral; 28—macerated, ventral; 29—internal genitalia, dorsal; 30—ditto, posterior. Scale bar: 0.2 mm. Abbreviations: *FD*—fertilization duct, *LT*—lateral tooth, *MP*—median plate of epigyne, *Sp*—spermatheca.

For palp and legs measurements see Table 5. Palp coloration: femora and patellae light brown with blurry spots; tibiae and cymbium brown. Legs coloration: femora I–IV light brown with blurry semi-rings; patellae I–IV light brown; tibiae I–II light brown, III–IV light brown with blurry semi-rings; metatarsi I–II light brown, III–IV light brown with blurry semi-rings; tarsi I–IV light brown. For palp and legs spination see Table 6.

Palp as shown in Figs 17–26. *RTA* arising from middle of tibia, curved, with pointed tip. Cymbium with pointed retro-proximal cymbial outgrowth (*RPO*). Tegulum (*Te*) with rounded hump (*TH*) in retrolateral half. Tegular apophysis (*TA*) large, elongated, originating in a 5 o'clock position. Conductor (*C*) large, membranous. Embolus (*Em*) originating from tegulum in 7-o'clock-position, its tip divided in long apical (*AA*) and short basal (*BA*) arms. Embolus with large embolic hook (*EH*).

*Female.* (Figs 15–16). Total length 11.97. Prosoma 6.11 long, 4.72 wide. Opisthosoma 5.87 long, 4.01 wide. Prosoma dark brown (darker than in males), with brown median band. Median band near ocular area widened, bearing couple of gray spots. Lateral bands narrow, light brown, poorly visible. Fovea thin, black. Clypeus brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum dark brown with

short longitudinal strap anteriorly. Labium dark brown, almost black. Endites dark brown with yellowish distal edge. Dorsal part of opisthosoma black with poorly visible yellowish cardiac mark and almost invisible series of transverse stripes posterior of it. Lateral sides of opisthosoma gray with yellowish spots. Ventral part of opisthosoma dark gray with yellow spots forming two V-marks. Spinnerets yellow ventrally, dark brown laterally.

Eye diameters: AME 0.23, ALE 0.18, PME 0.36, PLE 0.33; interdistances: AME–AME 0.20, AME–ALE 0.47, PME–PME 0.23, PME–PLE 0.49, AME–PME 0.10, ALE–PLE 0.25. Clypeus height at AME 0.17, at ALE 0.54.

For palp and legs measurements see Table 7. Palp coloration. Femora light brown; other joints brown. Legs coloration. Femora I brown with light brown longitudinal stripes laterally; II–IV brown with dark brown blurry spots. Patellae I–IV brown. Tibiae I–II brown; III–IV brown with dark brown semi-rings. Metatarsi I–II brown; III–IV brown with dark brown semi-rings. Tarsi I–IV light brown. For palp and legs spination see Table 8.

**TABLE 5.** Palp and legs measurements of male of *Bowie musang* sp. nov.

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.22 | 0.99 | 0.95 | -    | 2.02 | 6.18  |
| I    | 4.43 | 2.08 | 4.28 | 3.95 | 1.34 | 16.08 |
| II   | 4.10 | 2.12 | 3.66 | 3.43 | 1.24 | 14.55 |
| III  | 3.59 | 1.87 | 2.72 | 3.30 | 1.18 | 12.66 |
| IV   | 4.84 | 1.92 | 4.19 | 5.45 | 1.61 | 18.01 |

**TABLE 6.** Palp and legs spination for the male of *Bowie musang* sp. nov.

|      | Fe          | Pa    | Ti                | Mt                 |
|------|-------------|-------|-------------------|--------------------|
| Palp | 5d 1p 1r    | 1p    | 1p 1r             | -                  |
| I    | 3d 3p 4r    | 1p 1r | 3d 2p 2r 2-2-2-2v | 4p 4r 2-2-2v       |
| II   | 3d 3(4)p 4r | 1p 1r | 3d 2p 2r 2-2-2-2v | 4p 4r 2-2-2v       |
| III  | 3d 4p 4r    | 1p 1r | 3d 2p 2r 2-2-2v   | 4p 4r 2-2-2v       |
| IV   | 3d 4p 3r    | 1p 1r | 3d 2p 2r 2-2-2v   | 4p 5r 1-1-1-1-1-2v |

**TABLE 7.** Palp and legs measurements of female of *Bowie musang* sp. nov.

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.00 | 0.89 | 1.32 | -    | 1.48 | 5.69  |
| I    | 3.94 | 2.20 | 3.36 | 2.82 | 1.11 | 13.43 |
| II   | 3.78 | 2.07 | 2.98 | 2.68 | 1.02 | 12.53 |
| III  | 3.13 | 1.73 | 2.34 | 2.69 | 1.16 | 11.05 |
| IV   | 4.25 | 1.86 | 3.50 | 4.52 | 1.51 | 15.64 |

**TABLE 8.** Palp and legs spination for the female of *Bowie musang* sp. nov.

|      | Fe       | Pa        | Ti              | Mt                 |
|------|----------|-----------|-----------------|--------------------|
| Palp | 3d 1p 1r | 1p        | 2p 1r           | -                  |
| I    | 3d 3p 3r | spineless | 2-2-2-2-2v      | 2-2-2v             |
| II   | 3d 4p 3r | spineless | 2-2-2-2-2v      | 2-2-2v             |
| III  | 3d 4p 4r | 1p 1r     | 3d 2p 2r 2-2-2v | 4p 5r 2-2-2v       |
| IV   | 3d 4p 2r | 1p 1r     | 3d 2p 2r 2-2-2v | 4p 5r 1-1-1-1-1-2v |



Female genitalia as shown in Figs 27–30. Epigyne slightly wider than long. Median plate (*MP*) widest posteriorly. Lateral teeth (*LT*) large, located posterior of median plate, with rounded tips. Spermathecae (*Sp*) small, more or less kidney-shaped.

**Notes.** According to the structure of the male copulatory organs, such as the hook-like *RTA* arising medially as well as diagonally oriented tegular apophysis covering part of the embolus, *B. musang* **sp. nov.** belongs to the *shakeit* species-group sensu Jäger (2022). Thus, with the description of the new species, this group now consists of seven species: *Bowie ashestoashes* Jäger, 2022, *B. bluejean*, *B. criminalworld*, *B. musang* **sp. nov.**, *Bowie sarawakensis*, *Bowie shakeit* Jäger, 2022, and *Bowie tangalunga* **sp. nov.** All previous records of species from this group were restricted to Borneo only.

**Distribution.** Mindanao Isl., Philippines (Figs 68–69).

***Bowie tangalunga* sp. nov.**

(Figs 31–41, 68–69)

**Type material. PHILIPPINES: Cotabato Province: Holotype:** 1♂ (ZMMU), Mindanao Island, Apo Mt., [7° 1'N, 125°13'E], 1350 m, 26–30 January 1995, A.M. Emelyanov leg. **Paratype:** 1♂ (IBSS), together with the holotype.



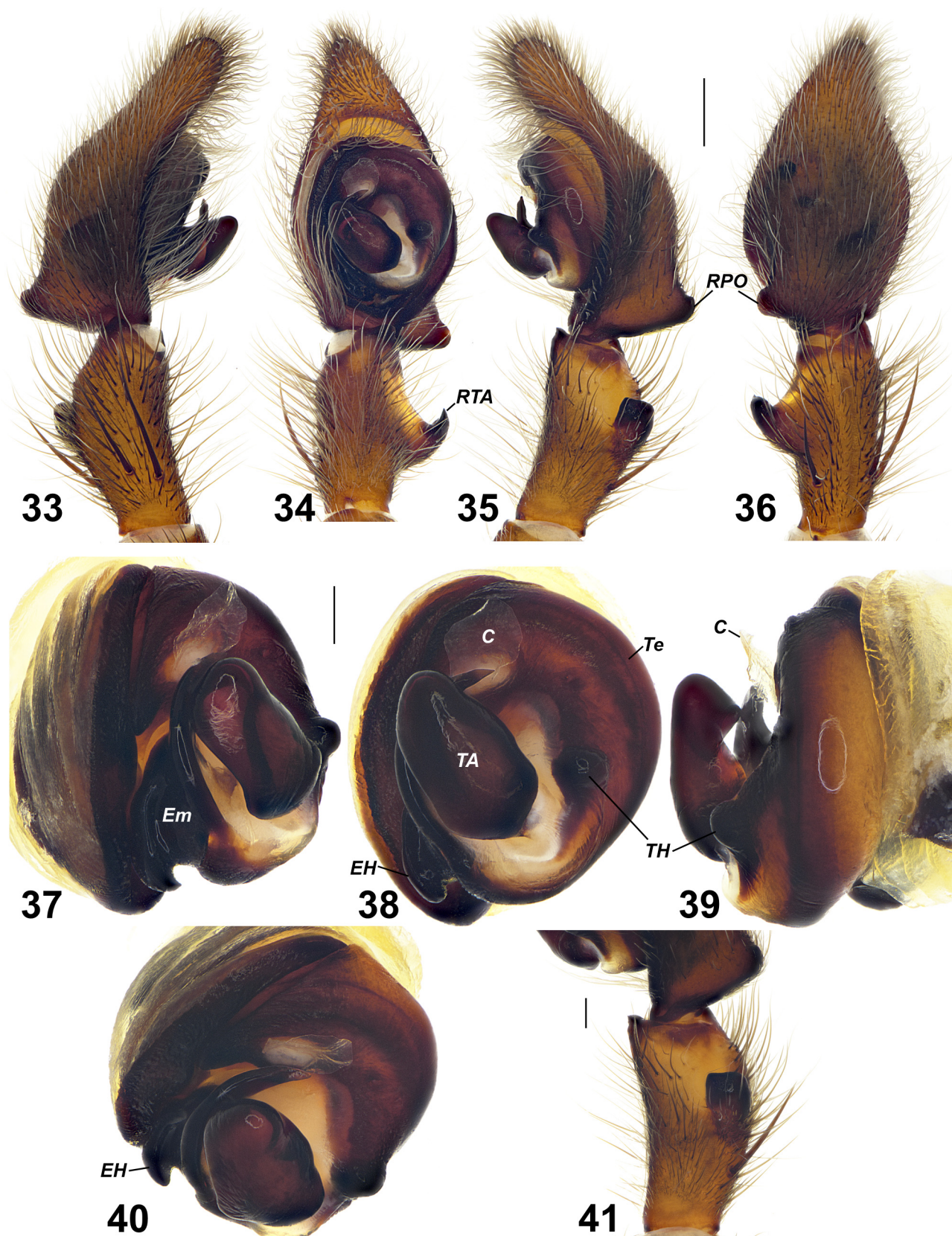
**FIGURES 31–32.** Male habitus of *Bowie tangalunga* **sp. nov.** 31—dorsal; 32—ventral. Scale bar: 2 mm.

**Etymology.** The specific name is derived from the local name of the Malayan civet [*Viverra tangalunga* Gray], a small predatory beast native to Southeast Asia; name in apposition.

**Diagnosis.** Males of *Bowie tangalunga* **sp. nov.** resemble those of *B. criminalworld* by the shape of the tegular apophysis (*TA*) and the shape of the retro-proximal cymbial outgrowth (*RPO*) in ventral view but can be easily distinguished by 1) embolus hidden behind the tegular apophysis to a large extent (vs. not hidden; cf. Figs 34, 38 and Jäger 2022: fig. 769), 2) base of *TA* located almost medially (vs. retrolaterally; cf. Fig. 38 and Jäger 2022: fig. 769), 3) tip of embolus (*Em*) extending *TA* (vs. not extending; cf. Fig. 38 and Jäger 2022: fig. 769).

**Description. Male** (Figs 31–32). Total length 13.11. Prosoma 7.10 long, 5.23 wide. Opisthosoma 6.05 long, 4.05 wide. Prosoma black, with light brown median band, slightly widened near ocular area. Lateral bands disrupted into several whitish spots. Fovea thin, black. Clypeus light brown. Chelicerae dark brown with brown longitudinal stripes anteriorly, 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum brown without pattern. Labium dark brown. Endites brown with yellow distal edge. Dorsal part of opisthosoma black with short yellowish cardiac mark and series of transverse stripes posterior of it. Lateral sides of opisthosoma black with lots of tiny yellow spots. Ventral part of opisthosoma black with yellow spots forming two V-marks (inner mark poorly visible). Spinnerets dark brown.

Eye diameters: AME 0.28, ALE 0.21, PME 0.38, PLE 0.32; interdistances: AME–AME 0.16, AME–ALE 0.38, PME–PME 0.23, PME–PLE 0.35, AME–PME 0.10, ALE–PLE 0.18. Clypeus height at AME 0.20, at ALE 0.59.



**FIGURES 33–41.** Palp (33–36), bulb (37–40) and palpal tibia (41) of male of *Bowie tangalunga* sp. nov. 33, 37—prolateral; 34, 38—ventral; 35, 39, 41—retrolateral; 36—dorsal; 40—apical. Scale bars: 33–36 = 0.5 mm; 37–41 = 0.2 mm. Abbreviations: C—conductor, EH—embolic hook, Em—embolus, RPO—retro-proximal cymbial outgrowth, RTA—retrolateral tibial apophysis, TA—tegular apophysis, Te—tegulum, TH—tegular hump.



For palp and legs measurements see Table 9. Palp coloration: femora, patellae, tibiae brown; cymbium dark brown. Legs coloration: femora I dark brown dorsally and laterally, brown ventrally, with light brown longitudinal stripe retrolaterally; II dark brown dorsally and prolaterally, brown retrolaterally and ventrally; III–IV dark brown dorsally and laterally, brown ventrally, with light brown semi-rings. Patellae I–IV brown. Tibiae I–II, IV light brown with white setae; III light brown. Metatarsi I–II brown; III–IV brown with light brown semi-rings. Tarsi I–IV light brown. For palp and legs spination see Table 10.

Palp as shown in Figs 33–41. *RTA* arising from middle of tibia, short, curved, with sharply pointed tip in ventral view. Cymbium with short, blunt retro-proximal cymbial outgrowth (*RPO*). Tegulum (*Te*) with rounded hump (*TH*). Tegular apophysis (*TA*) oval, originating in a 5 o'clock position. Conductor (*C*) large, membranous. Embolus (*Em*) originating from tegulum in 6.30-o'clock-position, with pointed tip. Embolus with large basal embolus hook (*EH*).

**Notes.** According to the structure of the copulatory organs, *Bowie tangalunga* **sp. nov.** belongs to the *shakeit* species-group (see notes for *B. musang* **sp. nov.**).

**Distribution.** Mindanao Isl., Apo Mt., Philippines (Figs 68–69).

**TABLE 9.** Palp and legs measurements of male of *Bowie tangalunga* **sp. nov.**

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.97 | 1.17 | 1.32 | -    | 2.26 | 7.72  |
| I    | 5.95 | 2.77 | 5.91 | 5.10 | 1.75 | 21.48 |
| II   | 5.24 | 2.74 | 5.04 | 4.48 | 1.46 | 18.96 |
| III  | 4.56 | 2.22 | 4.16 | 4.02 | 1.47 | 16.43 |
| IV   | 6.31 | 2.26 | 6.01 | 6.74 | 1.82 | 23.14 |

**TABLE 10.** Palp and legs spination for the male of *Bowie tangalunga* **sp. nov.**

|      | Fe       | Pa    | Ti                  | Mt                 |
|------|----------|-------|---------------------|--------------------|
| Palp | 4d 1p 1r | 1p    | 2p 1r               | -                  |
| I    | 3d 3p 4r | 1p 1r | 3d 2p 2r 2-2-2-2-2v | 3p 3r 2-2-2v       |
| II   | 3d 3p 4r | 1p 1r | 3d 1p 2r 2-2-2-2-2v | 3p 4r 2-2-2v       |
| III  | 3d 4p 4r | 1p 1r | 3d 2p 2r 2-2-2v     | 4p 5r 2-2-2v       |
| IV   | 3d 4p 3r | 1p 1r | 3d 2p 2r 2-2-2v     | 4p 4r 1-1-1-1-1-2v |

***Bowie shakeit* Jäger, 2022**

(Figs 42–57, 68–69)

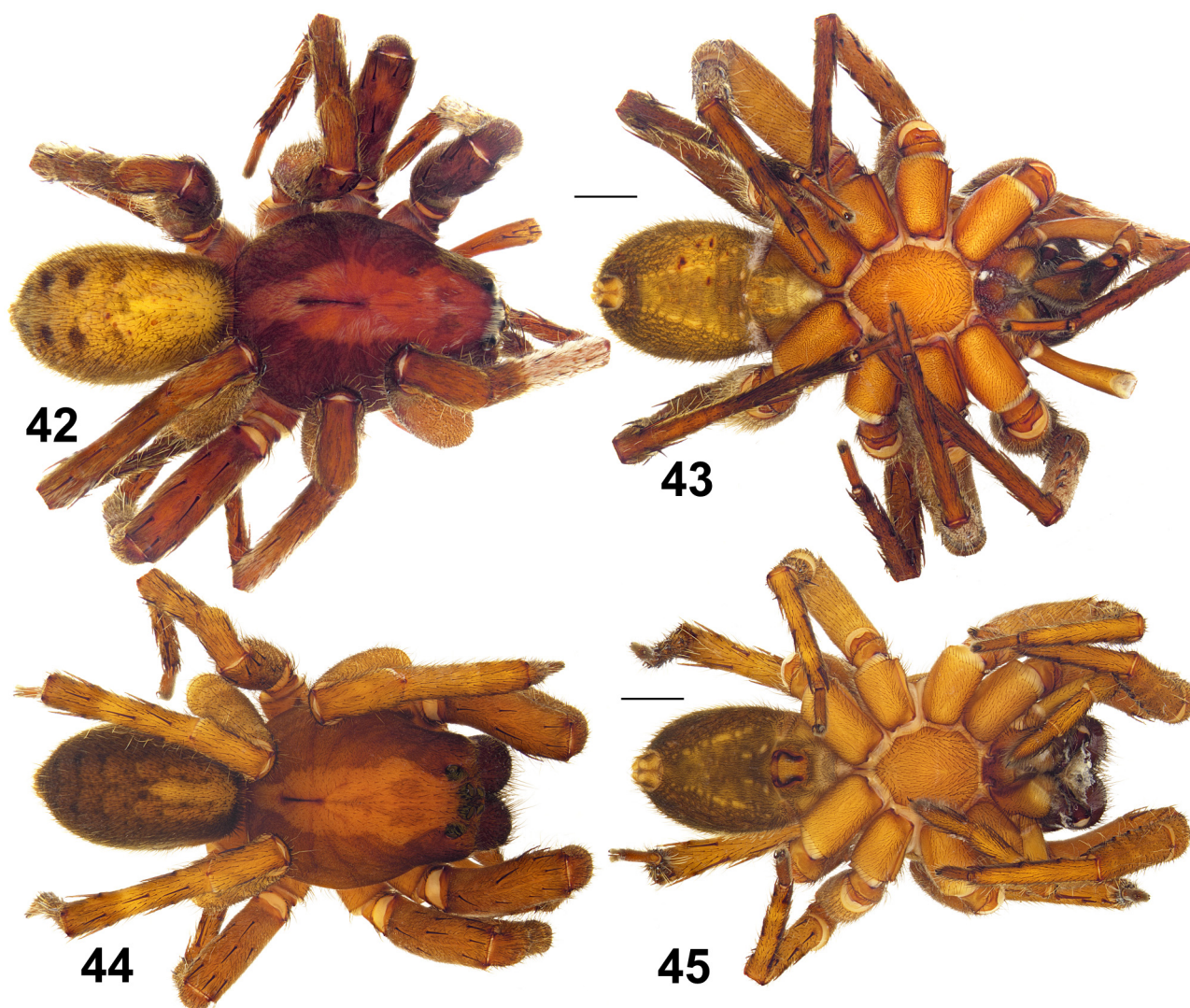
*B. shakeit* Jäger, 2022: 165, figs 745–748, 775–780 (♂♀), not examined.

**Material examined.** MALAYSIA: **Sabah State:** 2♂, 1♀ (IBSS), Borneo, environs of Tawau [4°24'N, 117°53'E], 300 m, 30 August–7 September 1994, A.M. Emelyanov leg.

**Diagnosis.** Males of *Bowie shakeit* closely resemble those of *B. criminalworld* by the shape and size of *RTA* as well as tegular apophysis (*TA*) but can be distinguished by 1) retro-proximal cymbial outgrowth (*RPO*) extending *RTA* in ventral view (vs. not extending; cf. Fig. 47 and Jäger 2022: fig. 769), 2) tegular hump (*TH*) touching tegular apophysis (*TA*) (vs. not touching; cf. Fig. 51 and Jäger 2022: fig. 769). Females of *Bowie shakeit* resemble those of *B. criminalworld* by the shape of median plate (*MP*) but can be easily distinguished by widely spaced vulval folds (*VF*) (vs. almost touching each other; cf. Fig. 56 and Jäger 2022: fig. 774). For extended diagnosis see Jäger (2022).

**Description.** *Male* (Figs 42–43). Total length 16.20. Prosoma 9.03 long, 6.68 wide. Opisthosoma 6.90 long, 4.30 wide. Prosoma dark brown, with light brown median band, widened and bearing two dark spots nearly ocular area. Lateral bands absent. Fovea thin, black. Clypeus light brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum light brown, without pattern. Labium dark brown. Endites dark brown with yellow distal edge. Dorsal part of opisthosoma yellowish with poorly visible cardiac mark and series of

black spots. Lateral sides of opisthosoma greenish yellow. Ventral part of opisthosoma dark gray with yellow spots forming single V-mark. Spinnerets yellow ventrally, dark brown laterally.



**FIGURES 42–45.** Habitus of male (42–43) and female (44–45) of *Bowie shakeit* Jäger. 42, 44—dorsal; 43, 45—ventral. Scale bars: 2 mm.

Eye diameters: AME 0.38, ALE 0.24, PME 0.47, PLE 0.37; interdistances: AME–AME 0.17, AME–ALE 0.41, PME–PME 0.23, PME–PLE 0.46, AME–PME 0.09, ALE–PLE 0.19. Clypeus height at AME 0.29, at ALE 0.75.

For palp and legs measurements see Table 11. Palp coloration: femora, patellae, tibiae brown; cymbium dark brown. Legs coloration: femora I–IV brown with dark brown blurry spots dorsally, brown laterally, light brown ventrally. Patellae I–IV brown. Tibiae I–II brown proximally, light brown with short white setae distally; III–IV brown. Metatarsi I–IV dark brown. Tarsi I–IV brown. For palp and legs spination see Table 12.

Palp as shown in Figs 46–53. *RTA* arising from the middle of tibia, short, curved, with pointed tip in ventral view. Cymbium with large, blunt retro-proximal cymbial outgrowth (*RPO*). Tegulum (*Te*) with rounded hump (*TH*). Tegular apophysis (*TA*) oval, originating in a 5.30 o'clock position. Conductor (*C*) large, membranous. Embolus (*Em*) originating from tegulum in 7-o'clock-position, short, with pointed tip. Embolus with large basal embolic hook (*EH*).

*Female.* (Figs 44–45). Total length 13.99. Prosoma 7.62 long, 5.93 wide. Opisthosoma 6.46 long, 3.92 wide. Prosoma brown, with light brown median band, widened and bearing two dark spots nearly ocular area. Lateral bands poorly visible. Fovea thin, black. Clypeus light brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum light brown, without pattern. Labium dark brown. Endites brown



with yellow distal edge. Dorsal part of opisthosoma dark gray with distinct yellowish cardiac mark and series of dark brown transversal stripes. Lateral sides of opisthosoma dark gray. Ventral part of opisthosoma dark gray with yellow spots forming single V-marks. Spinnerets yellow with brown lateral sides.

Eye diameters: AME 0.37, ALE 0.23, PME 0.44, PLE 0.41; interdistances: AME–AME 0.22, AME–ALE 0.46, PME–PME 0.24, PME–PLE 0.52, AME–PME 0.11, ALE–PLE 0.15. Clypeus height at AME 0.30, at ALE 0.71.

For palp and legs measurements see Table 13. Palp coloration: all joints light brown. Legs coloration: femora I–IV light brown. Patellae I–IV light brown. Tibiae I–II light brown; III–IV light brown with poorly visible semi-rings. Metatarsi I–II light brown; III–IV light brown with poorly visible semi-rings. Tarsi I–IV light brown. For palp and legs spination see Table 14.

**TABLE 11.** Palp and legs measurements of male of *Bowie shakeit* Jäger, 2022

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 3.51 | 1.42 | 1.61 | 0    | 2.82 | 9.36  |
| I    | 7.25 | 3.45 | 6.93 | 6.24 | 1.93 | 25.8  |
| II   | 6.51 | 3.05 | 5.72 | 5.26 | 1.73 | 22.27 |
| III  | 5.84 | 2.35 | 4.54 | 4.75 | 1.50 | 18.98 |
| IV   | 7.68 | 2.94 | 6.77 | 9.07 | 2.06 | 28.52 |

**TABLE 12.** Palp and legs spination for the male of *Bowie shakeit* Jäger, 2022

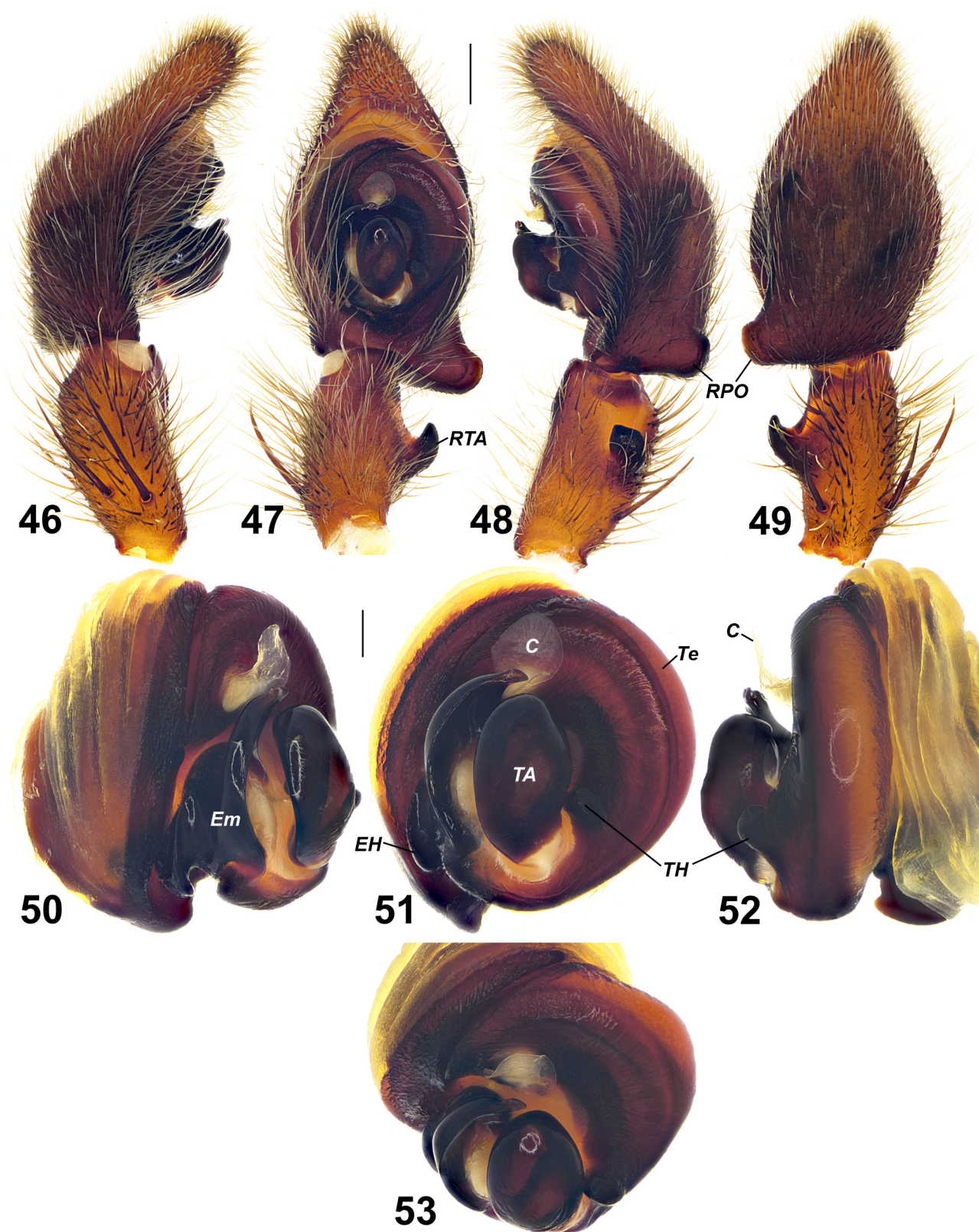
|      | Fe       | Pa    | Ti                   | Mt                 |
|------|----------|-------|----------------------|--------------------|
| Palp | 4d 1p 1r | 1p    | 2p 1r                | -                  |
| I    | 3d 3p 4r | 1p 1r | 3d 2p 2(3)r 2-2-2-2v | 1d 3p 3r 2-2-2v    |
| II   | 3d 4p 4r | 1p 1r | 3d 3p 3r 2-2-2-2v    | 4p 4r 2-2-2v       |
| III  | 3d 4p 4r | 1p 1r | 3d 2p 2r 2-2-2v      | 4p 4r 2-2-2v       |
| IV   | 3d 4p 3r | 1p 1r | 3d 2p 2r 2-2-2v      | 4p 4r 1-1-1-1-1-2v |

**TABLE 13.** Palp and legs measurements of female of *Bowie shakeit* Jäger, 2022

|      | Fe   | Pa   | Ti   | Mt   | Ta   | Total |
|------|------|------|------|------|------|-------|
| Palp | 2.68 | 1.36 | 1.74 | -    | 2.03 | 7.81  |
| I    | 5.09 | 2.93 | 4.89 | 3.96 | 1.40 | 18.27 |
| II   | 5.05 | 2.76 | 4.29 | 3.71 | 1.39 | 17.2  |
| III  | 4.22 | 2.34 | 3.14 | 3.76 | 1.44 | 14.9  |
| IV   | 5.79 | 2.25 | 4.98 | 6.66 | 1.76 | 21.44 |

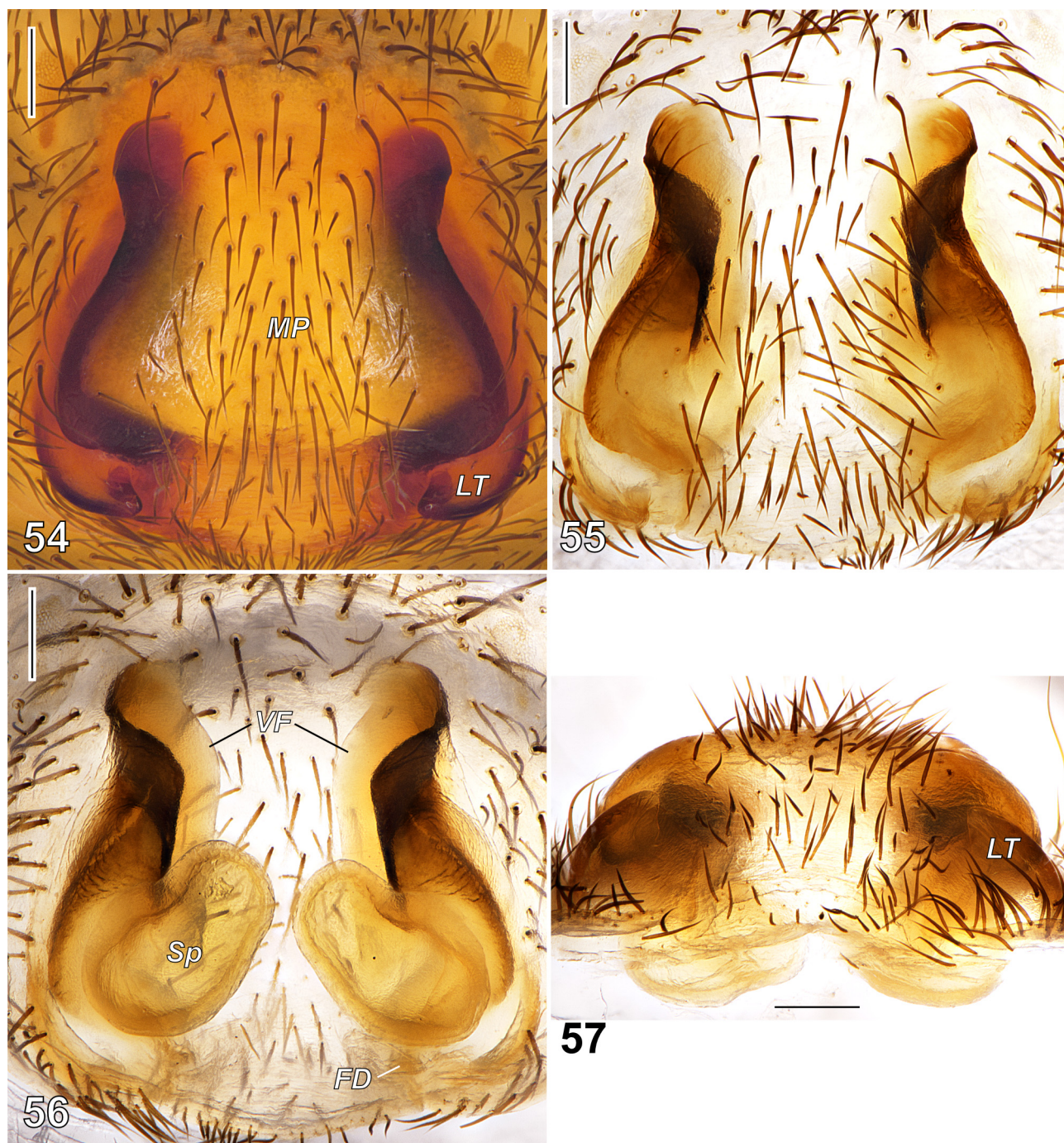
**TABLE 14.** Palp and legs spination for the female of *Bowie shakeit* Jäger, 2022

|      | Fe          | Pa        | Ti              | Mt             |
|------|-------------|-----------|-----------------|----------------|
| Palp | 3d 1p 1r    | 1p        | 2p 2r           | -              |
| I    | 3d 3p 3(4)p | spineless | 2-2-2-2-2v      | 2-2-2v         |
| II   | 3d 4p 3r    | spineless | 2-2-2-2-2v      | 2-2-2v         |
| III  | 3d 2(4)p 4r | 1p 1r     | 3d 2p 2r 2-2-2v | 5p 5r 2-2-2v   |
| IV   | 3d 4(5)p 2r | 1p 1r     | 3d 2p 2r 2-2-2v | 4p 4r 2-1-2-2v |



**FIGURES 46–53.** Palp (46–49) and bulb (50–53) of male of *Bowie shakeit* Jäger. 46, 50—prolateral; 47, 51—ventral; 48, 52—retrolateral; 49—dorsal; 53—apical. Scale bars: 46–49 = 0.5 mm; 50–53 = 0.2 mm. Abbreviations: *C*—conductor, *EH*—embolic hook, *Em*—embolus, *RPO*—retro-proximal cymbial outgrowth, *RTA*—retrolateral tibial apophysis, *TA*—tegular apophysis, *Te*—tegulum, *TH*—tegular hump.





**FIGURES 54–57.** Epigyne of *Bowie shakeit* Jäger. 54—intact, ventral; 55—macerated, ventral; 56—internal genitalia, dorsal; 57—ditto, posterior. Scale bar: 0.2 mm. Abbreviations: *FD*—fertilization duct, *LT*—lateral tooth, *MP*—median plate of epigyne, *Sp*—spermatheca, *VF*—vulval folds.

Female genitalia as shown in Figs 54–57. Epigyne slightly longer than wide. Median plate (*MP*) widest posteriorly. Lateral teeth (*LT*) comparatively short, located posterior of median plate, with pointed tips. Spermathecae (*Sp*) small, kidney-shaped, almost touching each other.

**Notes.** The species has been previously known from a single record from Maliau Basin (Sabah Prov. of Malaysia). The new record is located ca. 100 km to the east of the type locality. Because only its copulatory organs have been illustrated by black-and-white drawings only, we provide digital photos along with the redescription here.

**Distribution.** Borneo, Malaysia, Sabah Prov. (Figs 68–69).



*argentipes* species-group

***Bowie hosei* (F.O. Pickard-Cambridge, 1897)**

(Figs 58–69)

*Ctenus hosei* F.O. Pickard-Cambridge, 1897: 345, pl. 4, figs 11, 17, 20, 28–30 (♂♀), not examined. Pocock 1897: 608, pl. 25, fig. 14 (♂♀).

*Bowie hosei*: Jäger 2022: 123, figs 560–567, 588–591 (♂♀).

**Material examined.** MALAYSIA: **Sarawak State:** 1♂ (IBSS), Borneo, environs of Mulu village [4° 2'N, 114°47'E], 70 m, 9–11 March 1994, A.M. Emelyanov leg.



**FIGURES 58–59.** Male habitus of *Bowie hosei* (F.O. Pickard-Cambridge). 58—dorsal; 59—ventral. Scale bar: 2 mm.

**Diagnosis.** By the shape of *RTA*, embolus (*Em*) and general palp conformation males of *Bowie hosei* resemble those of *B. argentipes* (van Hasselt), *B. angigitanus* (Roewer) and *B. beruang* Omelko & Fomichev but can be easily distinguished by tegular apophysis (*TA*) with wide and short prolatero-proximad outgrowth (*TO*) (vs. narrow and more or less long; cf. Fig. 65 and Jäger 2022: figs 522, 542, Omelko & Fomichev 2023: fig. 10). For extended diagnosis see Jäger (2022).

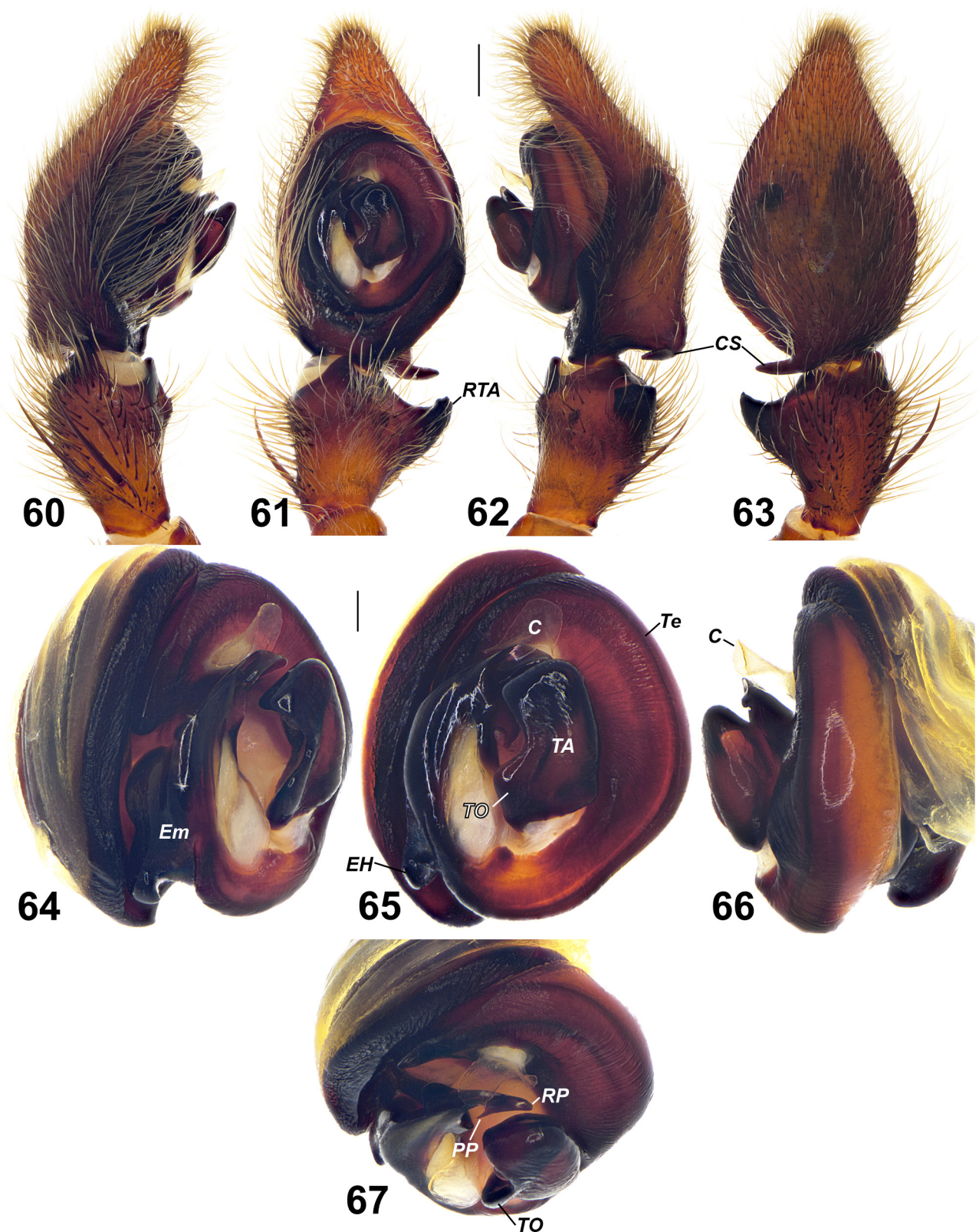
**Description.** *Male* (Figs 58–59). Total length 15.44. Prosoma 8.87 long, 6.70 wide. Opisthosoma 6.88 long, 4.27 wide. Prosoma dark brown, with light brown median band, widened and bearing two dark spots nearly ocular area. Median band covered with white setae. Lateral bands poorly visible. Fovea thin, black. Clypeus light brown. Chelicerae dark brown, with 3 promarginal and 4 retromarginal teeth, denticles absent. Sternum brown, without pattern. Labium dark brown. Endites dark brown with yellow distal edge. Dorsal part of opisthosoma greenish gray with distinct yellowish serrated band covered with white setae. Lateral sides of opisthosoma yellowish with brown spots. Ventral part of opisthosoma dark gray with yellowish spots forming two V-marks (inner mark indistinct). Spinnerets yellow ventrally, dark brown laterally.

Eye diameters: AME 0.41, ALE 0.20, PME 0.50, PLE 0.44; interdistances: AME–AME 0.18, AME–ALE 0.39, PME–PME 0.20, PME–PLE 0.40, AME–PME 0.09, ALE–PLE 0.16. Clypeus height at AME 0.22, at ALE 0.75.

For palp and legs measurements see Table 15. Palp coloration: femora, patellae brown; tibiae and cymbium dark brown. Legs coloration: both leg I absent. Femora II dark brown dorsally, brown laterally and ventrally, with brown spots retrolaterally; III–IV dark brown dorsally, brown laterally and ventrally, with brown spots laterally. Patellae II–III brown; IV brown with short white setae. Tibiae II brown with short white setae distally; III brown; IV brown with short white setae. Metatarsi I brown; III–IV brown with dark brown semi-rings. Tarsi II–IV light brown. For palp and legs spination see Table 16.

Palp as shown in Figs 60–67. *RTA* long, strongly curved in ventral view. Cymbium with thin, short, curved retrodorsal spur (*CS*) with sharp tip. Tegular apophysis (*TA*) large, right-angled anteriorly, with large prolatero-proximad outgrowth (*TO*). Conductor (*C*) large, membranous. Embolus (*Em*) with retrolateral (*RP*) and prolateral (*PP*) parts of its tip (visible in anterior view) and basal embolic hook (*EH*).





**FIGURES 60–67.** Palp (60–63) and bulb (64–67) of *Bowie hosei* (F.O. Pickard-Cambridge). 60, 64—prolateral; 61, 65—ventral; 62, 66—retrolateral; 63—dorsal; 67—apical. Scale bars: 60–63 = 0.5 mm; 64–67 = 0.2 mm. Abbreviations: *EH*—embolic hook, *Em*—embolus, *C*—conductor, *CS*—cymbial spur, *PP*—prolateral part of embolic tip, *RTA*—retrolateral tibial apophysis, *RP*—retrolateral part of embolic tip, *TA*—tegular apophysis, *Te*—tegulum, *TO*—tegular apophysis outgrowth.



**FIGURES 68–69.** Collection localities of the studied *Bowie* species. Circle—*Bowie catopuma* **sp. nov.**; star—*Bowie musang* **sp. nov.**; diamond—*Bowie neukoeln* Jäger; triangle—*Bowie tangalunga* **sp. nov.**; inverted triangle—*Bowie shakeit* Jäger; square—*Bowie hosei* (F.O. Pickard-Cambridge). The frame on Fig. 69 refers to the content of Fig. 68.

**TABLE 15.** Palp and legs measurements of male of *Bowie hosei* (F.O. Pickard-Cambridge, 1897)

|      | Fe         | Pa   | Ti   | Mt    | Ta   | Total |
|------|------------|------|------|-------|------|-------|
| Palp | 3.60       | 1.51 | 1.58 | 0     | 3.22 | 9.91  |
| I    | Leg absent |      |      |       |      |       |
| II   | 7.02       | 3.24 | 6.49 | 6.11  | 1.95 | 24.81 |
| III  | 6.00       | 2.75 | 5.10 | 5.32  | 1.69 | 20.86 |
| IV   | 8.08       | 2.81 | 7.06 | 10.11 | 2.13 | 30.19 |

**TABLE 16.** Palp and legs spination for the male of *Bowie hosei* (F. O. Pickard-Cambridge, 1897)

|      | Fe         | Pa    | Ti                   | Mt                 |
|------|------------|-------|----------------------|--------------------|
| Palp | 6d 1p 1r   | 1p    | 2p 1r                | -                  |
| I    | Leg absent |       |                      |                    |
| II   | 3d 4p 4r   | 1p 1r | 3d 1p 2(3)r 2-2-2-2v | 4p 3r 2-2-2v       |
| III  | 3d 4p 4r   | 1p 1r | 3d 2p 2r 2-2-2v      | 4p 4r 2-2-2v       |
| IV   | 3d 4p 3r   | 1p 1r | 3d 2p 2r 2-2-2v      | 4p 5r 1-1-1-1-1-2v |

**Notes.** Since *Bowie hosei* is known from only three taxonomic entries (World Spider Catalog 2024) with only black-and-white pictures of its copulatory organs, we provide a detailed redescription of the male here.

**Distribution.** Borneo (Malaysia: Sarawak Prov., and Brunei) (Figs 68–69).

## Acknowledgements

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