

**Redescriptions of 16 species of Oriental Salticidae (Araneae)
described by F. Karsch, E. Keyserling and C.L. Koch,
with remarks on some related species**

**Переописания 16 видов ориентальных Salticidae (Araneae)
описанных Ф. Каршем, Э. Кейзерлигом и К.-Л. Кохом,
с замечаниями о некоторых близких видах**

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KEY WORDS: Taxonomy, redescriptions, types, Salticidae, diagnostic characters, geographical distribution, Oriental Region, the Philippines.

КЛЮЧЕВЫЕ СЛОВА: Таксономия, переописания, типы, диагностические признаки, распространение, Ориентальная область, Филиппины.

ABSTRACT. This paper documents, identifies and redescribes the type specimens of 16 species of jumping spiders, 14 of which were erroneously considered «nomina dubia». The following new synonymy is established: *Plexippus planipudens* (Karsch, 1881) = *Plexippus paykulli* Audouin, 1826 syn.n., 12 species are transferred to different genera, with name combinations changed accordingly: *Hasarius coelestis* Karsch, 1880 = *Thiania coelestis* (Karsch, 1880) comb.n., *Homalattus deplanatus* Karsch, 1880 = *Rhene deplanata* (Karsch, 1880) comb.n., *Ictidops constrictus* Karsch, 1880 = *Nannenus constricta* (Karsch, 1880) comb.n., *Plexippus albolineatus* C.L. Koch, 1846 = *Carrhotus albolineatus* (C.L. Koch, 1846) comb.n., *Plexippus caeruleus* Karsch, 1880 = *Chalcotropis caeruleus* (Karsch, 1880) (comb.n.), *Plexippus intermedius* Karsch, 1880 = *Bavia intermedia* (Karsch, 1880) comb.n., *Plexippus lividus* Karsch, 1880 = *Telamonia livida* (Karsch, 1880) comb.n., *Plexippus nigrifrons* C.L. Koch, 1846 = *Evarcha nigrifrons* (C.L. Koch, 1846) comb.n., *Plexippus planiceps* Karsch, 1880 = *Bavia planiceps* (Karsch, 1880) comb.n., *Plexippus setosus* Karach, 1880 = *Telamonia setosa* (Karsch, 1880) comb.n., *Plexippus simplicissimus* Karsch, 1880 = *Thiania simplicissima* (Karsch, 1880) comb.n., *Plexippus unicolor* (Karsch, 1880 = *Lepidemathis unicolor* (Karsch, 1880) comb.n.. The following types specimens are redescribed: *Eris barbatus* Karsch, 1880 = *Carrhotus barbatus* (Karsch, 1880), «*Euophrys*» *declivis* Karsch, 1879 (replacement is postponed pending further research), *Hasarius insularis* Keyserling, 1881 = *Chalcotropis insularis* (Keyserling, 1881), *Plexippus erythrocephalus* C.L. Koch, 1846 = *Art-*

abus erythrocephalus (C.L. Koch, 1846). The «nomen oblitum» status of *Ictidops deruptus* Karsch, 1880 is confirmed. The undescribed Philippine specimens of «*Eugasmia barbata*» and *Simaetha* cf. «*leucomelas*» are discussed.

РЕЗЮМЕ. В работе приводятся переописания типов 16 видов пауков-скаунчиков, 14 из них неоправданно рассматривались как «nomina dubia». Установлен новый синоним: *Plexippus planipudens* (Karsch, 1881) = *Plexippus paykulli* Audouin, 1826 syn.n. 12 видов переведены в другие рода и соответственно установлены новые комбинации: *Hasarius coelestis* Karsch, 1880 = *Thiania coelestis* (Karsch, 1880) comb.n., *Homalattus deplanatus* Karsch, 1880 = *Rhene deplanata* (Karsch, 1880) comb.n., *Ictidops constrictus* Karsch, 1880 = *Nannenus constricta* (Karsch, 1880) comb.n., *Plexippus albolineatus* C.L. Koch, 1846 = *Carrhotus albolineatus* (C.L. Koch, 1846) comb.n., *Plexippus caeruleus* Karsch, 1880 = *Chalcotropis caeruleus* (Karsch, 1880) (comb.n.), *Plexippus intermedius* Karsch, 1880 = *Bavia intermedia* (Karsch, 1880) comb.n., *Plexippus lividus* Karsch, 1880 = *Telamonia livida* (Karsch, 1880) comb.n., *Plexippus nigrifrons* C.L. Koch, 1846 = *Evarcha nigrifrons* (C.L. Koch, 1846) comb.n., *Plexippus planiceps* Karsch, 1880 = *Bavia planiceps* (Karsch, 1880) comb.n., *Plexippus setosus* Karach, 1880 = *Telamonia setosa* (Karsch, 1880) comb.n., *Plexippus simplicissimus* Karsch, 1880 = *Thiania simplicissima* (Karsch, 1880) comb.n., *Plexippus unicolor* (Karsch, 1880 = *Lepidemathis unicolor* (Karsch, 1880) comb.n. Переописаны типовые экземпляры следующих видов: *Eris barbatus* Кар-

sch, 1880 = *Carrhotus barbatus* (Karsch, 1880), «*Euophrys*» *declivis* Karsch, *Hasarius insularis* Keyserling, 1881 = *Chalcotropis insularis* (Keyserling, 1881), *Plexippus erythrocephalus* C.L. Koch, 1846 = *Artabrus erythrocephalus* (C.L. Koch, 1846). Подтверждён статус «nomen oblitum» вида *Ictidops deruptus* Karsch, 1880. Обсуждается статус не описанных экземпляров из Филиппин, относящихся к «*Eugasmia barbata*» и *Simaetha* cf. «*leucomelas*».

Introduction

Some 200 species of Salticidae (Araneae) described during the 19th century have been overlooked by contemporary science, mainly due to the whimsical decisions of Roewer [1954]. He considered them unrecognizable from their original descriptions (disregarding the existence of type specimens) and excluded them from the list of valid species with the short statement «Nicht zu deuten!» (= «impossible to interpret»). This was followed by their subsequent branding as «nomina dubia» in catalogues by Brignoli [1983] and Platnick [2000–2009, online]. Bonnet (1955–1959) avoided such discrimination in his «Bibliographia araneorum», but his example was not followed by subsequent authors. Actually, the correct interpretation of old species names should usually be based on examination of existing type specimens (or other authoritatively identified material). The location of a number of type specimens of these «nomina dubia» was given in Prószyński [1971], further supplemented in Prószyński [1995–2009, online].

The scientific importance of type specimens for the study of the diversity of the fauna of poorly explored continents and archipelagoes is not limited to the mere solving of nomenclatorial quarrels on species, as in better studied areas of Europe and North America. In many cases types from the Oriental Region or the Pacific Islands are the only known specimens of particular species. Sometimes they constitute links between phylogenetic lines and they may correct a misinterpreted geographical distribution of widely separated (disjunct) species. Thus, the data from the 19th century publications and collections are too valuable to be neglected, whenever they can be rehabilitated and interpreted in the light of present day taxonomy. This is especially important with a view to current, ongoing demise of the world's biodiversity causing the potential loss of some described species, in addition to the dwindling number of taxonomists available to revise and redescribe old type specimens.

The aim of this paper is to identify, and to redescribe type specimens of 14 species of Salticidae, considered «nomina dubia», and a few other relevant species described or identified during the 19th century by C.L. Koch and F. Karsch. Most of the type specimens are preserved in the Museum für Naturkunde, Berlin. Remarks are included for a few species de-

scribed by E. Keyserling and E. Simon, kept in the Zoologisches Institut und Museum, Hamburg.

The pencil sketches, raw descriptions and measurements, originally made by M. Žabka (then my employee and PhD student, on travel arranged by me) from collections in the ZBN — Berlin during September 1981 and 1984, as well as in the ZIMH — Hamburg during October–November 1981 are considered by him to be unsuitable for publication and were forsaken in order to pursue more ambitious research. However, they are pertinent to my lifelong project of defining type species of the unrecognizable species of Salticidae, and they complement a series of publications containing only drawings of type specimens: [Prószyński, 1976, 1984, 1987], as well as a number of taxonomic papers by Prószyński [e.g., 1992a, 1992b], Wesolowska [e.g., 1981], Žabka [e.g., 1985, 1994], and several other authors quoted elsewhere. As a compromise, M. Žabka permitted me to publish these data now, although refused the invitation to be a co-author.

Materials and Methods

Type specimens were studied at the following institutions: ZMB — Museum für Naturkunde, Leibniz Institute for Research on Evolution and Biodiversity at the Humboldt University Berlin, Invalidenstrasse 43, D-10115, Germany; ZIMH — Zoologisches Institut und Museum, Universität Hamburg, Martin-Luther-King-Platz 3, D-20146 Hamburg, Germany.

Complementary species were studied by J. Prószyński in: IRRRI — International Rice Research Institute, Los Banos, the Philippines; MNHN — Muséum National d'Histoire Naturelle, Paris, France.

Abbreviations used for measurements (in mm): CL — carapace length; EFL — eye field length; AEW — anterior eye field width; PEW — posterior eye field width; AL — abdomen length.

The specimens studied by M. Žabka were investigated using a $\times 100$ magnification stereomicroscope. Palpal organs were detached and stabilized in sand in an ethanol filled Petri dish. After examination they were put in microvials together with the original specimens. The epigynes were drawn in situ. For examination of the internal structures, the epigynes were removed from the specimens, macerated in 10–20% water solution of KOH (25 hours, under control), stained in a solution of Chlorazol Black E in ethanol, and fixed in glycerol for examination under a compound microscope. Subsequently, the epigynes were in a microvial with ethanol and stored together with the specimen. All drawings were made using a grid system. The pencil sketches were prepared for print by J. Prószyński, who also checked and commented on the classification of each species by comparing it with similar structures in related species and genera, shown in Prószyński [1995–2009, online]. The material does not permit study of other features of interest, e.g., intraspecific variation, appearance of fresh material etc.

Taxonomic survey

Artabrus erythrocephalus (C.L. Koch, 1846)

Figs 1–5.

Plexippus erythrocephalus C.L. Koch, 1846: 102, f. 1164 (♂).*Artabrus erythrocephalus*: Simon, 1903: 736, f. 846–847 (♂).*Artabrus erythrocephalus*: Prószyński, 1984: 1.*Artabrus erythrocephalus*: Prószyński, 1987: 2, f. 2–3.*Artabrus erythrocephalus*: Zhang et al., 2003: 188, f. 1A–E (♂♀).*Artabrus erythrocephalus*: Platnick, 2000–2009: online.

MATERIAL. ♂ lectotype (designated here, palpus separate), 1 ♀ paralectotype (designated here).

«*Plexippus erythrocephalus* Koch Type, Java, ZMB 1726». ZMB.1 ♀ *Artabrus erythrocephalus* — «Padang/W.» Coll. Simon, det. J. Prószyński [found in vial «21264 [with ♂ «*Pseuda[mycus] flavopubescens* ES Padang/W.» — but not mentioned in the description of the latter species] MNHN.

DIAGNOSIS. Recognizable by its characteristic palpus (Figs 1–2) and epigyne (Figs 4–5).

DESCRIPTION (present appearance of the specimens). Male lectotype. Carapace oval, light brown, with darker eye field and black around the eyes. Abdomen elongated, oval, slightly narrower posteriorly, dark brown with a lighter median stripe, laterally with indistinct dark oblique stripes, separated by lighter ones. Length of carapace 3.7 mm, of abdomen 4.9 mm. Palpus (Figs 1–2) with oval bulbus, embolus arising laterally and running after a small bend, not encircling bulbus; cymbium broad. Tibia distally broadened triangularly at basis of apophysis, directed laterally; apophysis short and blunt. Chelicerae (Fig. 3) broad, with blunt, flat tipped retrolateral tooth.

Female paralectotype. Outline of epigyne elongated, oval (Fig. 4), with copulatory openings anterior, diagonal and slit-like. Copulatory ducts running almost posteriorly, with loops of spermathecae distally. A similar, presumably conspecific female specimen (Fig. 5), is kept in the Simon's collection in MNHN, in the same vial with the non-conspecific lectotype «21264 *Pseuda[mycus] flavopubescens* ES. Padang/W.» [Prószyński, 1984: 115, also 1995–2009, on line]. Due to different drawing technique it is not possible to comment upon the conspecificity of a female from Singapore: Bukit Timah, illustrated by Zhang et al., 2003: 188, Fig. 1A–E.

DISTRIBUTION. Documented from Java, Singapore.

Bavia intermedia (Karsch, 1880) **comb.n.**

Figs 7–9.

Plexippus intermedius Karsch, 1880: 399 (♂).*Plexippus intermedius*: Roewer, 1954: 1634 («Nicht zu deuten!»).*Plexippus intermedius*: Prószyński, 1971: 457–458 (gives type specimen location).*Bavia intermedia*: Prószyński, 1995–2009: online **comb.n.***Plexippus intermedius*: Platnick, 2000–2009: online (nomen dubium).MATERIAL. ♂ holotype (palpus separate) «*Plexippus intermedius* Karsch, 1880, Luzon, Jagor» «Type». «ZMB 1717». ZMB.REMARK. The pedipalp structure of *Plexippus intermedius* is entirely different from that of the type species of *Plexippus* and is similar to that of the type species of *Bavia* Simon, 1877 — *Bavia aericeps*. Hence this reclassification and the creation of a new combination.

DIAGNOSIS. Characterized by the palpal organ (Fig. 7) and its tibial apophysis (Figs 8–9).

DESCRIPTION (present appearance of the specimen). Male large (about 1 cm), carapace brown. Abdomen orange-brown, with two longitudinal dark gray stripes, with numerous gray hairs. Leg I brown, legs II–IV orange gray, with numerous long brownish gray setae and brown spines.

Palpus (Figs 7–9) closely resembling the type species of the genus *Bavia*, i.e., *Bavia aericeps* Simon, 1877, but it is unclear whether the minor differences signify two different species or whether they are due to the dried and shrunken condition of the holotype.

DISTRIBUTION. Documented from the Philippines: Luzon.

Bavia planiceps (Karsch, 1880) **comb.n.**

Figs 10–11.

Plexippus planiceps Karsch, 1880: 399 (♀).*Plexippus planiceps*: Roewer, 1954: 1634 («Nicht zu deuten!»).*Plexippus planiceps*: Prószyński, 1971: 457–458 (gives type specimen location).*Plexippus planiceps*: Prószyński, 1995–2009: online.*Plexippus planiceps*: Platnick, 2000–2009: online (nomen dubium).MATERIAL. ♀ holotype (epigyne separate) «*Plexippus planiceps* Karsch, 1880, Luzon, Jagor» «Type» «ZMB 1710». ZMB.REMARK. The epigyne resembles that of *Bavia aericeps*, the type species of *Bavia* Simon, 1877 (Fig. 10) and is entirely different from that of the type species of the genus *Plexippus*. The internal structure (Fig. 11) fits the general plan of the genus *Bavia*, but there are distinct, specific differences.

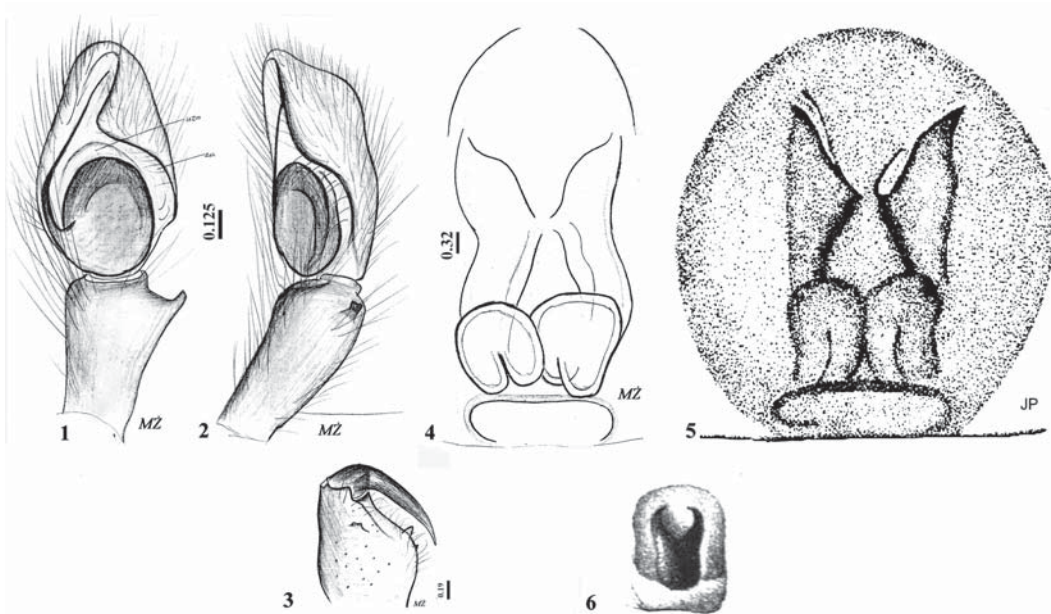
DESCRIPTION (present appearance of the specimen). Specimen dark brownish gray. Carapace robust, broad but not very high, dark brown with black around the eyes, eye field reddish orange with metallic shine. Setae sparse, gray and dark gray. Abdomen dried up and wrinkled, brownish dark gray, hairs sparse, dark brown and gray.

Clypeus blackish brown, with gray and orange-grayish setae. Chelicerae robust, dark brown. Maxillae and labium dark brown. Pedipalps brownish orange. Sternum dark brown.

Abdomen grayish brown. Legs dark brown with grayish orange metatarsi and orange tarsi. Setae moderately dense, gray and grayish brown. Spines short, light brown.

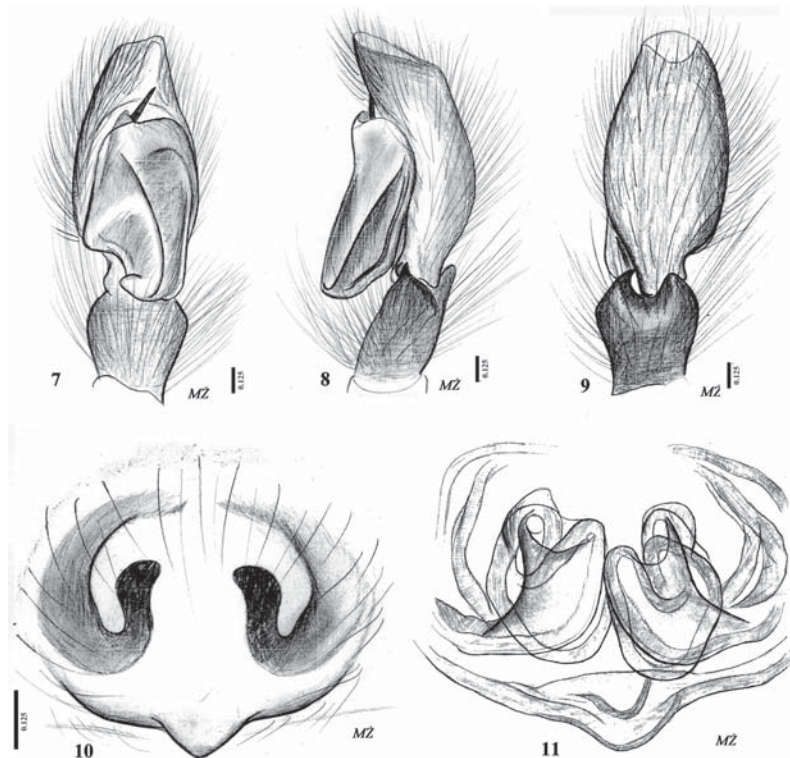
Dimensions. CL 4.7, EFL 2.0, AEW 2.8, PEW 3.0, AL 7.9.

DISTRIBUTION. Documented from the Philippines: Luzon.



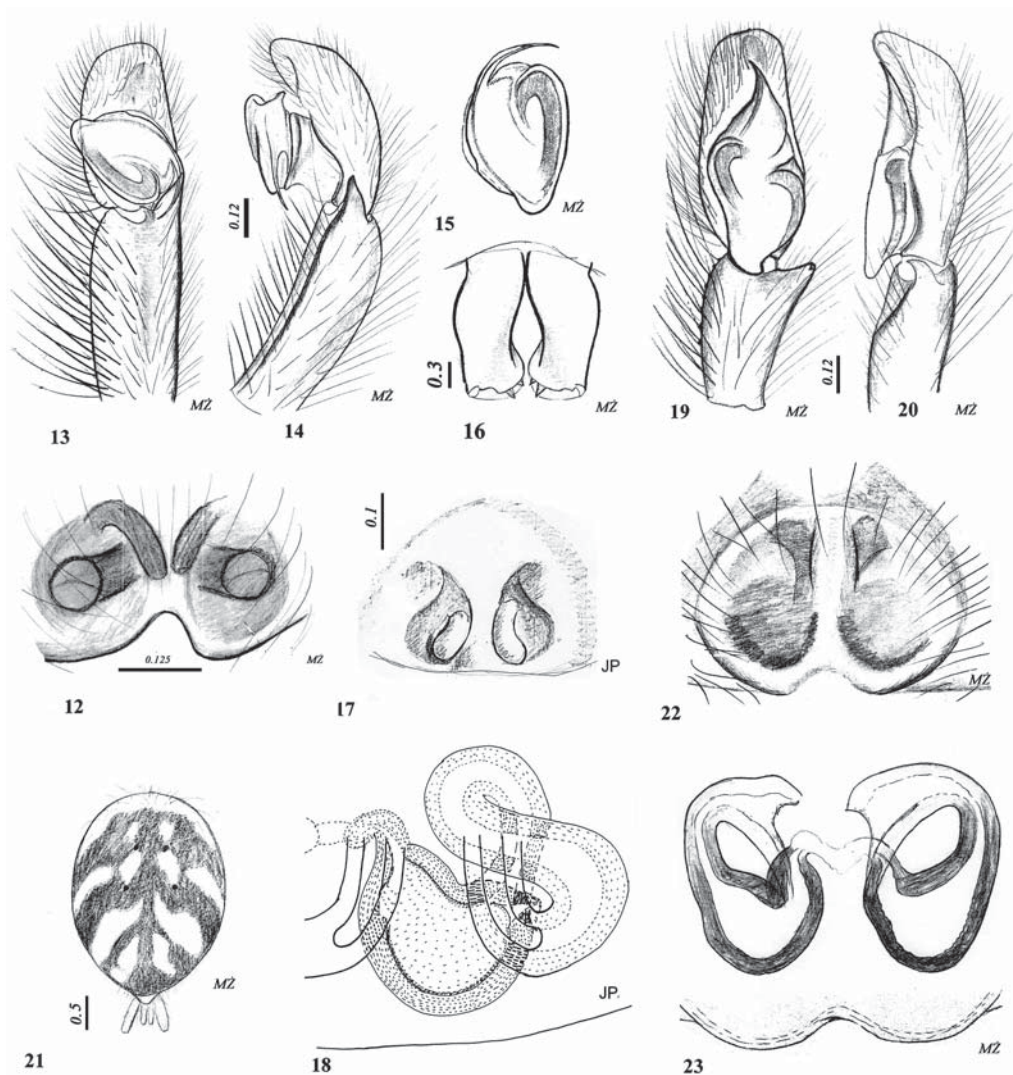
Figs 1–6. Copulatory organs of *Artabrus erythrocephalus* (1–5) and *Plexippus paykulli* (6): 1–2 — male palp, ventral and retrolateral; 3 — chelicera, inner view; 4–6 — epigyne and internal structure; 1–3 — lectotype; 4 — paralectotype; 5 — specimen from Sumatra: Padang, coll. Simon, det. by J. Prószyński, drawn by Prószyński [1984]; 6 — original Karsch specimen, drawn as *Cyrba planipudens* by Keyserling, 1883: 1442, pl. 122, f. 2.

Рис. 1–6. Копулятивные органы *Artabrus erythrocephalus* (1–5) и *Plexippus paykulli* (6): 1–2 — голотип, вентрально и ретролатерально; 3 — хелицера, изнутри; 4–6 — эпигины и внутренние структуры; 1–3 — лектотип; 4 — паралектотип; 5 — экземпляр из Суматры: Padang, coll. Simon, det. by J. Prószyński, по Prószyński [1984]; 6 — экземпляр Karsch, изображен как *Cyrba planipudens* в работе Keyserling, 1883: 1442, pl. 122, f. 2.



Figs 7–11. Holotypes of *Bavia intermedia* (7–9) and *Bavia planiceps* (10–11): 7–9 — palpus (apparently dried out in the past and thus shriveled); 10–11 — epigyne (ventrally) and its internal structures.

Рис. 7–11. Голотипы *Bavia intermedia* (7–9) и *Bavia planiceps* (10–11): 7–9 — пальпа (очевидно ранее высохшая и поэтому сморщенная); 10–11 — эпигина (вентрально) и её внутренние структуры.



Figs 12–23. *Carrhotus albolineatus* (12, holotype), *Carrhotus barbatus* (13–18) and *Carrhotus viduus* [misidentified as *Eugasmia barbata*, non type specimens] (19–23): 12, 17, 22 — epigyne, ventral view; 13–14, 19–20 — palpus; 18, 23 — internal structure of epigyne; 16 — chelicerae; 21 — abdominal pattern. 12 — holotype from Java; 13–16 — lectotype from Luzon; 17–18 — comparatively fresh specimen from the Philippines: Nueva Viscaya, drawn by Prószyński; 19–23 — non-type specimen labeled as *Eugasmia barbata*, from either Sri Lanka or the Philippines (two labels in the specimen's vial).

Рис. 12–23. *Carrhotus albolineatus* (12, голотип), *Carrhotus barbatus* (13–18) и *Carrhotus viduus* [ошибочно определённая, как *Eugasmia barbata*, не типовой экземпляр] (19–23): 12, 17, 22 — эпигина, вентрально; 13–14, 19–20 — пальца самца; 18, 23 — внутренние структуры эпигины; 16 — хелицеры; 21 — рисунок брюшка. 12 — голотип из Явы; 13–16 — лектотип из Luzon; 17–18 — «свежий» экземпляр из Филиппин: Nueva Viscaya, рисунок Prószyński; 19–23 — не типовые экземпляры этикетированные как *Eugasmia barbata*, из Шри Ланки и Филиппин (две этикетки в одной пробирке).

Carrhotus albolineatus (C.L. Koch, 1846) **comb.n.**
Fig. 12.

Plexippus albolineatus C.L. Koch, 1846: 105, f. 1167 (♀).
Plexippus albolineatus: Prószyński, 1971: 387 (gives type specimen location).

Carrhotus viduus: Prószyński, 1995–2009: online (synonym dubious).

Carrhotus viduus (in part): Platnick, 2009: online (synonym dubious).

MATERIAL. ♀ holotype «*Plexippus albolineatus* Koch fig. 1167 (Deep.) [?], Java» «ZMB 1723». ZMB.

REMARK. The epigyne (Fig. 12) is entirely different from that of the type species of *Plexippus*, and

externally resembles that of the type species of *Carrhotus* Thorell, 1891, *C. viduus* Thorell, 1891. The internal structures of the epigyne of the specimen studied were not examined, but its translucent element corresponds with structures known in species of *Carrhotus*. The characters documented do not permit the certain identification of this species as *C. viduus*, so it is better to consider it provisionally as a separate species, pending further studies of new material.

DESCRIPTION (present appearance of the specimen). Carapace brown, covered by sparse whitish setae, eye field almost black. Legs grayish orange. Abdomen macerated, with traces of darker belts sepa-

rated by lighter ones, covered with numerous brown bristles.

DISTRIBUTION. Documented from Java.

Carrhotus barbatus (Karsch, 1880)
Figs 13–18.

Eris barbatus Karsch, 1880: 397, pl. 12, f. 16 (♂).

Eugasmia barbata: Simon, 1902: 395.

Eugasmia barbata: Simon, 1903: 703.

Carrhotus barbatus: Prószyński, 1995–2009: online.

Carrhotus barbatus: Platnick, 2000–2009: online.

MATERIAL. ♂ lectotype (designated here, with palpus separate) «*Eris barbatus* Karsch, 1880. Luzon, Manila», »ZMB 1788" [additionally, 2 ♂♂ preserved as dry specimens «Luzon: Jagor» «ZMB 1788a» not seen]. ZMB.

3 ♀♀ «cf. *C. sannio*» — Philippines: «Nueva Viscaya, Bayambang, Luzon, 17 Oct. 1985. Leg. R. Lahios. Coll. A.T. Barrion, det J. Prószyński» (possibly matching male *Carrhotus barbatus*). IIRI.

REMARK. The classification is based on the similarity of the general appearance and the palpal organ to the type species of the genus *Carrhotus* Thorell, 1891, and especially to *Carrhotus xanthogramma* (Latreille, 1819) (Fig. 15). The conspecificity of the female specimen from Nueva Viscaya is hypothetic, based on similarities of the epigyne (Figs 17–18) to other *Carrhotus* species, parallel in males and females [Prószyński 1995–2009, online].

DESCRIPTION (present appearance of the specimens). Male. Carapace robust and relatively broad, brown, sides light brown with whitish hairs, a line of whitish hairs along lateral eyes, extending along edge of flat dorsal surface and ending at 2/3rd the length of the carapace. Tufts of brown setae over carapace and abdomen. Abdomen brown, weakly light-reflecting, with traces of lighter and darker spots, posteriorly with traces of a lighter bar, anteriorly with a margin of whitish, adpressed setae. Clypeus and basal parts of chelicerae with whitish setae, light brown. The palpus in the specimen studied was expanded, with bulbus twisted 180 degrees (Figs 13–14). When adjusted (Fig. 15) it resembles the palp of the Palaearctic species *Carrhotus xanthogramma* (Latreille, 1819). Embolus arising prolaterally from bulbus and directed transversally, but embolus is thinner and longer with a shorter basal region, anterior part of bulbus broader, tibial apophysis pointed. Pedipalps light brown, with numerous brown setae. Maxillae and labium brown, sternum orange, abdomen ventrally grayish orange. Legs I orange-brown with adpressed whitish setae, and upright light brown setae and spines. Legs II–IV similar, but lighter. Dimensions. CL 3.36, EFL 1.32, AEW 2.1, PEW 2.1, AL 3.3.

Female — new specimen from Nueva Viscaya, Bayambang, Luzon (possibly conspecific). Carapace and abdomen with white spots, similar to the related species *C. sannio* and *C. xanthogramma*, but with some differences. Epigyne shown in Fig. 17, its internal structures in Fig. 18 (the spermatheca in this drawing may have been dislocated forward during preparation).

DISTRIBUTION. Documented from the Philippines, Luzon.

Carrhotus viduus (C.L. Koch, 1846)
Figs 19–23.

Plexippus viduus C.L. Koch, 1846: 104, f. 1166 (♂).

Carrhotus viduus: Thorell, 1891: 142.

Carrhotus viduus: Andreeva et al., 1981: 103, f. 39–42 (♂♀).

Carrhotus viduus: Prószyński, 1984a: 16 (♂).

Carrhotus viduus: Prószyński, 1992b: 169, f. 7 (♂).

Carrhotus viduus: Peng et al., 1993: 36, f. 75–83 (♂♀).

Carrhotus viduus: Jastrzebski, 1999: 4, f. 8–11 (♂).

Carrhotus viduus: Song, Zhu & Chen, 1999: 507, f. 290I–J, 291A–B, 324Q (♂♀).

MATERIAL. 1 ♂♀ — with two different labels: 1) «*Eugasmia barbata* Karsch. Wellaweryas, SW Ceylon. Fruhstorfer, 15. 6. 1889», 2) «1 ♂, 1 ♀ Luzon Koch» [specimens misidentified, possibly *C. viduus*]. ZMB.

REMARK. Specimen of uncertain geographical origin, with two labels in the vial, indicating it originated from either Sri Lanka or the Philippines. As this species has never been reported from the Philippines, its occurrence there should be confirmed through new specimens. The misidentification of this species as *Eugasmia barbata* happened some 19 years after the original description of that species in 1880, so it is not a type specimen. The male resembles *C. viduus*, with minor differences in the proportions of the palpal organ (Figs 19–20); the female has more distinct differences in the internal structures of the epigyne (Figs 22–23). Abdominal pattern resembles several *Carrhotus* species.

DISTRIBUTION. An Oriental species, not reported from the Philippines.

Chalcotropis caeruleus (Karsch, 1880) **comb.n.**
Figs 24–25.

Plexippus caeruleus Karsch, 1880: 399 (♂).

Plexippus caeruleus: Roewer, 1954: 1634 («Nicht zu deuten!»).

Plexippus caeruleus: Prószyński, 1971: 459 (gives type specimen location).

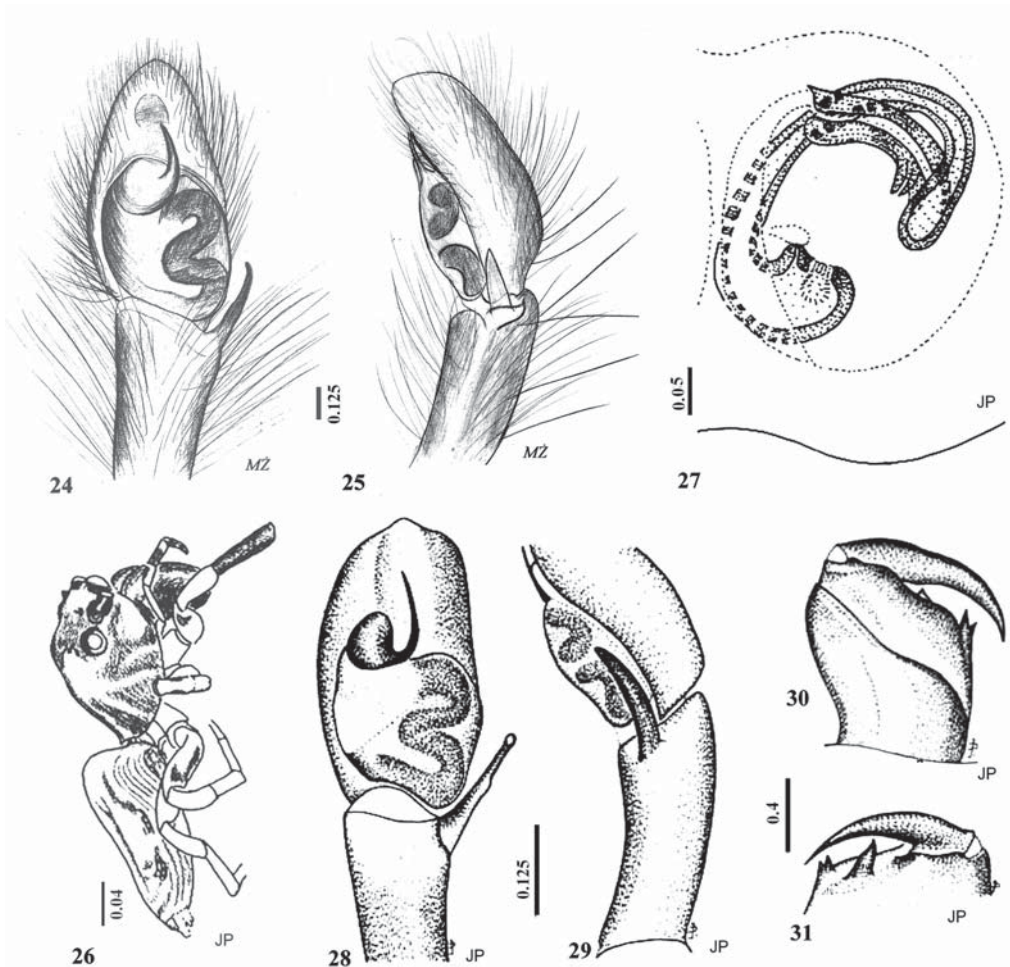
Plexippus caeruleus: Platnick, 2000–2009: online (nomen dubium).

Chalcotropis caeruleus: Prószyński, 1995–2009: online (comb.n.).

MATERIAL. ♂ holotype «»ZMB 1706 *Plexippus caeruleus* Karsch, 1880, Luzon, Jagor» «Type», ZMB 1706". ZMB.

Comparative material. 1 ♂ «20591 *Chalcotrop. praeclarus* ES. Manila. Quinqua». MNHN.

REMARK. The classification of this species within the genus *Chalcotropis* is confirmed by comparison of the palpi with those of the type species *Chalcotropis acutefrenata* Simon, 1902 from Java. They are also very similar to those of *Chalcotropis praeclara* Simon, 1902 from Luzon (Figs 28–31, from Prószyński 1987: 11). All these species are characterised by the presence of a meandering seminal duct, the base of the embolus shaped like a round, flat plate in the anterior part of the bulbus, from which a short embolus arises medially, basally broader and narrowing apically. The tibial apophysis is long, about as long as the bulbus, or somewhat shorter. Chelicerae have prominent diagonal ridges over their anterior surface (carina), also documented for *C. acutefrenata* Simon, 1902 and *C. praeclara*



Figs 24–31. *Chalcotropis caeruleus* — holotype (24–25), *Ch. insularis* — lectotype (26–27) and *Ch. praeclara* — specimen added for comparison, possibly type (28–31): 24–25, 28–29 — male palpus, 26 — general appearance, 27 — internal structure of epigyne; 30–31 — chelicera, frontal and posterior view. 26–27 drawn by Prószyński, 28–31 reprinted from Prószyński, 1987: 11, by courtesy.

Рис. 24–31. *Chalcotropis caeruleus* — голотип (24–25), *Ch. insularis* — лектотип (26–27) и *Ch. praeclara* — экземпляр добавлен для сравнения, возможно тип (28–31): 24–25, 28–29 — голотип, 26 — внешний вид, 27 — внутренние структуры эпигины; 30–31 — хелицера, спереди и сзади. 26–27 нарисованы Prószyński, 28–31 по Prószyński [1987].

Simon, 1902. Such ridges were assumed to be present in other species by Simon [1903: 801], but were not figured. The retrolateral cheliceral tooth is large, usually bifid and widely spaced from the fang. The tibial apophysis is long and gently bent.

DESCRIPTION (present appearance of the specimen). Carapace dark brown, eye field almost black, medially somewhat lighter (orange) behind the posterior/median eyes; covered with gray setae, and along eye field with whitish hairs. Abdomen narrower than carapace, anterior half blackish brown with lighter spots, posterior half blackish green with lighter, transverse spots. Legs long and brown with numerous setae and spines, tibia with a transverse ring of white setae. Length of carapace equal to length of abdomen. Unfortunately there are no data on the appearance of the anterior surface of the chelicerae, which seems to be particularly diagnostic in this genus.

DISTRIBUTION. Documented from the Philippines, Luzon.

Chalcotropis insularis (Keyserling, 1881)

Figs 26–27.

Hasarius insularis Keyserling, 1881: 1283, pl. 109, f. 7 (♀).

Chalcotropis insularis: Simon, 1903: 789.

Chalcotropis insularis: Prószyński, 1971: 388 (gives type specimen location).

Chalcotropis insularis: Prószyński, 1995–2009: online.

Chalcotropis insularis: Platnick, 2000–2009: online.

MATERIAL. ♀ lectotype (here designated) «*Hasarius insularis* Keyserling det. Tonga Insel. Mus. God. 7742». ZIMH. Type specimen of this species was loaned from the ZIMH by J.A. Beatty and was drawn by J. Prószyński [1995–2009, on line].

REMARK. This species was reclassified to *Chalcotropis* by Simon [1903: 789] without much argumentation, so its placement here remains uncertain, pending further research on new specimens. Although it certainly does not belong in *Hasarius*, the confirmation of its correct placement by genital characters is impossible because males are unknown, and the only known female in this genus — *Chalcotropis pennata* Simon, 1902 from India, is probably not congeneric.

DESCRIPTION. According to Keyserling's drawing [1881: 1283, pl. 109, f. 7] the epigyne has 2 large oval windows or depressions, with translucent semicircular ducts. A cleared preparation of the internal epigynal structures (Fig. 27) revealed that copulatory openings are antero-medial, sclerotised copulatory ducts run transversally, joining the second part of the ducts at a sharp angle, near lateral in mid-length of epigyne, with distinct opening of a scent gland near that junction. Second part of ducts make an anterior bend and run medially to spermatheca, located in the mid-posterior epigynal region. In total, ducts are more than 4 times longer than diameter of spermatheca. Those proportions are different in *C. pennata* Simon, 1902, in which diameter of spermatheca is longer than ducts. The similarities in epigynes of both species are meager, which raises the question of whether shape of epigyne, spermathecae location and sharp bend of ducts are sufficient to consider these forms congeneric. We have no documentation on epigyne structure for other species of *Chalcotropis*, which are known only from males.

DISTRIBUTION. Documented from Tonga Islands.

«*Euophrys*» *declivis* Karsch, 1879
Figs 32–33.

Euophrys declivis Karsch, 1879: 553 (♀).

Euophrys declivis: Roewer, 1954: 1506 («Nicht zu deuten!»).

Euophrys declivis: Prószyński, 1971: 405 (gives type specimen location).

Euophrys declivis: Prószyński, 1995–2009: online.

Euophrys declivis: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♀ holotype «*Euophrys declivis* Karsch, 1879. ZMB 1738. Ceylon. Holotypus. Nietner leg.» ZMB.

REMARK. The existence of this specimen revives the species and provides characters to identify it and to classify it in the future. Its unusual body proportions (Fig. 32), with the carapace almost twice as long and one and a half times as broad as the abdomen, do neither correspond to the genus *Euophrys* C.L. Koch, 1834 (type species *E. frontalis* (Walckenaer, 1802)), nor to any other genus known to me.

The epigyne (Fig. 33), which resembles *Euoprhyinae* was not detached, but its translucent internal structures are sufficiently visible. It has two oval depressions, with copulatory openings in the center of each, followed by cup-like sclerotised chambers, and bent sclerotized copulatory ducts leading to transverse oval spermathecae, located posteriorly.

DESCRIPTION (present appearance of the specimen). Carapace elongate, brown with black surrounding the eyes laterally.

There is a lighter median longitudinal streak (Fig. 32), which has white setae within the eye field. Other lines of white setae run along lateral edges of eye field, and along ventral edges of carapace. Anterior region of eye field covered with reddish setae, remainder of carapace with gray and grayish brown setae mixed with a few white setae. Abdomen blackish brown, with two

lighter, large median areas of orange-brown. There are white and reddish upright setae laterally, and two pairs of spots of white setae. Long, white and brownish orange bristles are scattered over the abdomen. Under-side of abdomen dark gray with numerous light gray setae. Anterior spinnerets brown.

Clypeus low, blackish brown, covered with upright light gray setae. There are white setae below the anterior eyes. Chelicerae light brown. Pedipalps orange-brown with some white areas, with long light gray setae.

Legs light brown, darker at the joints, with whitish and gray setae and brown spines.

Dimensions. CL 2.16, EFL 0.84, AEW 1.5, PEW 1.44, AL 1.5.

DISTRIBUTION. Documented from the Philippines: Luzon.

Evarcha nigrifrons (C.L. Koch, 1846) **comb.n.**
Fig. 35.

Plexippus nigrifrons Koch C.L., 1846: 110 (♀).

Plexippus nigrifrons: Roewer, 1954: 1635 («Nicht zu deuten!»).

Plexippus nigrifrons: Prószyński, 1971: 459 (gives type specimen location).

Plexippus nigrofrons [sic!]: Platnick, 2000–2009: online (nomen dubium).

Plexippus nigrifrons: Prószyński, 1995–2009: online.

MATERIAL. ♀ holotype «*Plexippus nigrifrons* (fig. 1172) Koch Type Bintang, Roetger. ZMB 1725». ZMB.

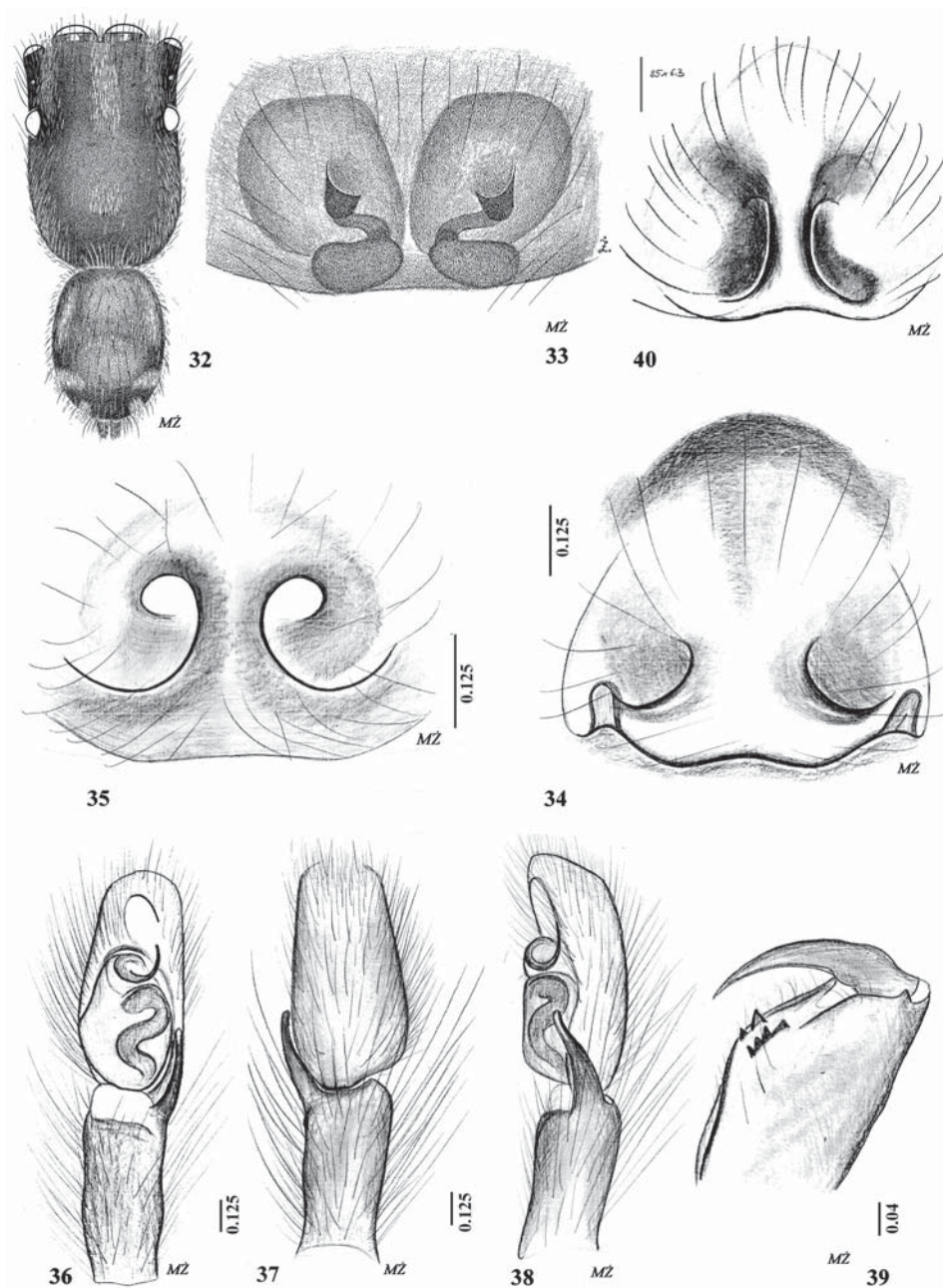
Comparative specimen. 1♀ (non type) «*Colopsus cancellatus* Sim. Depok, Java. K. Krapelin leg. 9. III. 1904. Ded. 8. VI. 1904» [= *Evarcha* cf. *cancellata*]. ZIMH.

REMARK. The epigyne (Fig. 35) is entirely different from that of the type species of the genus *Plexippus*, but it resembles the epigynes of several SE Asiatic species of *Evarcha* Simon, 1902. In particular, it is similar to those of the *Evarcha flavocincta* (C.L. Koch, 1846) species group, including *Evarcha* cf. *cancellata* (Simon, 1902) (Fig. 34), but less so to the type species *Evarcha falcata* (Clerck, 1757).

DESCRIPTION (present appearance of the specimen). Specimen macerated, with faded colors. Carapace yellow with brown eye field, covered with light gray and brown setae. Tufts of dark brown bristles give the impression of dark «horns» between eyes II and III. Anterior and posterior regions of abdomen reddish, median area brown, with traces of a darker brown median streak; numerous long gray and brown setae.

The structure of the epigyne of *Evarcha nigrifrons* (Fig. 35) resembles the epigynes of several species of the *Evarcha flavocincta* species group, illustrated here by the epigyne of *Evarcha* cf. *cancellata* from Java (not conspecific with the type specimen from Sri Lanka) (Fig. 34), but it differs in the relative proportions of certain parts. Lateral pockets are not visible in Fig. 35, but in some species preparation of the epigyne is required to reveal them. It will only be possible to determine the exact taxonomic position of this species following investigation of the ducts and spermathecae.

Dimensions. CL 3.12, EFL –, AEW 2.04, PEW 1.98, AL 2.52.



Figs 32–40. «*Euophrys*» *declivis* (32–33, holotype), *Evarcha* cf. *cancellata* (34, specimen for comparison), *Evarcha nigrifrons* (35, holotype), *Lepidemathis unicolor* (36–39, holotype) and *Nannenus constrictus* (40, holotype): 32 — general appearance; 33–35, 40 — epigyne; 36–38 — palpus; 39 — cheliceral dentition.

Рис. 32–40. «*Euophrys*» *declivis* (32–33, голотип), *Evarcha* cf. *cancellata* (34, сравнительный экземпляр), *Evarcha nigrifrons* (35, голотип), *Lepidemathis unicolor* (36–39, голотип) и *Nannenus constrictus* (40, голотип): 32 — внешний вид; 33–35, 40 — эпигина; 36–38 — palpus; 39 — вооружение хелицер.

DISTRIBUTION. Confirmed from Indonesia: Sumatra: Bintang.

Ictidops deruptus Karsch, 1880

Ictidops deruptus Karsch, 1880: 398 (immature).
Ictidops deruptus: Roewer, 1954: 1532 («Nicht zu deuten!»).
Aelurillus deruptus: Bonnet, 1955: 167.

Aelurillus deruptus: Prószyński, 1971: 375 (gives type specimen location).

Aelurillus deruptus: Prószyński, 1995–2009: online.

Aelurillus deruptus: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. Subadult ♂ «*Ictidops deruptus* Karsch, 1880, Holotypus, Philippines: Jagor. ZMB 1713». ZMB.

REMARK. Subadult male in poor condition that cannot be identified, so this is a true «nomen dubium».

Although the genus *Ictidops* Fickert, 1876 was preoccupied, the automatic transfer of all its species to *Aelurillus* Simon, 1884 by Simon, 1884 [Bonnet 1957: 2285] is not justified. In contrast to common practice, it is better to maintain the original combination.

No *Aelurillus* species have been reported from the Philippines.

Lepidemathis unicolor (Karsch, 1880) **comb.n.**
Figs 36–39.

Plexippus unicolor Karsch, 1880: 399 (♂).

Plexippus unicolor: Roewer, 1954: 1635 («Nicht zu deuten!»).

Plexippus unicolor: Prószyński, 1971: 459 (gives type specimen location).

Chalcotropis unicolor: Prószyński, 1995–2009: online **comb.n.**

Plexippus unicolor: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♂ holotype (palpus separate) — «*Plexippus unicolor* Karsch, 1880, Luzon, Jagor» «Type» «ZMB 1719» «.

REMARK. This classification is based on the resemblance of the male palpus to that of the type species of *Lepidemathis* Simon, 1903 — *L. sericea* (Simon, 1899), which is completely different from that of the type species of *Plexippus*.

DESCRIPTION (present appearance of the specimen). Carapace brown, darker around eyes. Abdomen half the width of the carapace, brownish orange, posteriorly grayish orange. Legs brownish orange, legs IV grayish orange.

The male palpus is typical of the *Euophryinae*, with a coiled embolus atop an elongate bulb, and a long, thin, slightly bent tibial apophysis. There is no prominent ventral swelling on the palpal tibia. Cheliceral dentition: a multicone tooth (with 4 cusps), resembling the dentition of *L. sericea*. Dimensions. CL 3.75, AL 4.5.

DISTRIBUTION. Documented from the Philippines: Luzon.

Nannenus (?) constrictus (Karsch, 1880) **comb.n.**
Fig. 40.

Ictidops constrictus Karsch, 1880: 398 (♂).

Ictidops constrictus: Roewer, 1954: 1532 («Nicht zu deuten!»).

Ictidops constrictus: Prószyński, 1971: 375 (gives type specimen location).

Aelurillus constrictus: Platnick, 2000–2009: online (nomen dubium).

Evarcha constricta: Prószyński, 1995–2009: online.

MATERIAL. ♀ holotype «*Ictidops constrictus* Karsch, 1880 (Holotypus) Luzon, Jagor», «ZMB 1791». ZMB.

REMARK. This classification is based on similarities of the epigyne (Fig. 40) to that of *Nannenus syrphus* Simon, 1902, the type species of *Nannenus* Simon, 1902. It has two oval grooves separated by a narrow elevation, followed by translucent parts of the ducts. It does not resemble the epigyne of any species of the genus *Aelurillus* Simon, 1884, into which the other species of *Ictidops* Fickert, 1876 (preoccupied) were transferred by Simon, 1884 [Bonnet 1957: 2285].

DESCRIPTION (present appearance of the specimen). A small spider, approximately 5 mm long. Carapace blackish brown with blackish brown setae, with contrasting lines of adpressed white setae along ventral edge and around eye field. Clypeus orange-brown (amber color) with setae of the same color. Chelicerae black and brown, pedipalps orange-brown. Legs with orange-brown and gray setae and spines. Abdomen black, with traces of three transverse belts of light gray hairs, there are some iridescent scales. Ventral coloration of the abdomen is similar, with numerous light gray setae. Outline of epigyne (Fig. 40) similar to that of several species of *Nannenus*, especially *Nannenus syrphus* Simon, 1902 from Singapore.

Dimensions. CL 2.46, EFL 0.96, AEW 1.56, PEW 1.56, AL 2.58.

DISTRIBUTION. Documented from the Philippines: Luzon.

Plexippus paykulli (Audouin, 1826)
Fig. 6.

Plexippus planipudens Karsch, 1881: 16. (♀) (**syn.n.**).

Cyrba planipudens Keyserling, 1883: 1442, pl. 122, f. 2. (♀).

Artabrus planipudens: Simon, 1903: 728 (misquoted).

Artabrus planipudens: Platnick, 2000–2009: online.

Artabrus planipudens: Prószyński, 1995–2009: online.

MATERIAL. ♀ holotype «*Plexippus planipudens* Karsch. Tarowa [= Tarawa] Gilbert-Inseln, leg. O. Finsch. ZMB 3695». ZMB.

REMARK. The original drawing of the epigyne by Keyserling [1883: 1442–1444, pl. 122, f. 2], captioned *Cyrba planipudens* (reproduced here as Fig. 6), is identical to the epigyne of the well known species *Plexippus paykulli*, the type species of *Plexippus*, and to other species of that genus [Prószyński, 1995–2009, online]. Actually, Simon [1903: 728] did not transfer *Cyrba planipudens* to *Artabrus*, [as assumed by Platnick, 2000–2009, on line], but merely hinted at the possibility: he wrote «pourrait etre une femelle d'*Artabrus*». However, it is not.

DISTRIBUTION. A cosmopolitan species, described under the synonym *Plexippus planipudens* from the Central Pacific: Tarowa [Gilbert Islands = Kiribati].

Rhene deplanata (Karsch, 1880) **comb.n.**
Figs 41–46.

Homalattus deplanatus Karsch, 1880: 396 (♂).

Homalattus deplanatus: Roewer, 1954: 1529 («Nicht zu deuten!»).

Homalattus deplanatus: Prószyński, 1971: 418 (gives type specimen location).

Rhene deplanata: Prószyński, 1995–2009: online.

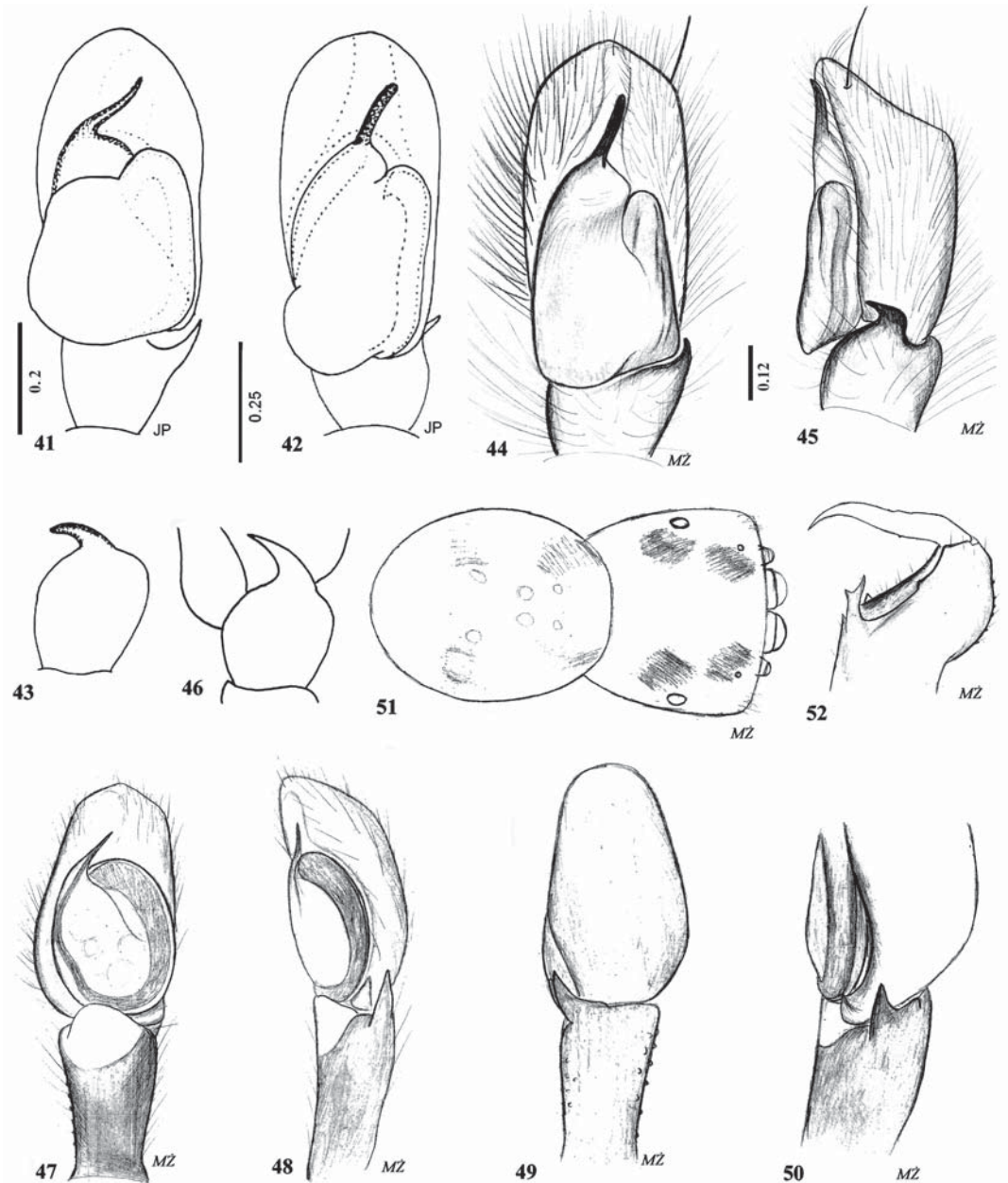
Homalattus deplanatus: Platnick, 2000–2009: online (nomen dubium).

Comparative species:

Rhene habahumpa Barrion & Litsinger, 1995: 89, f. 45a–e (♂).

Rhene hinlalakea Barrion & Litsinger, 1995: 86, f. 44a–h (♂).

MATERIAL. ♂ holotype «1833 *Homalattus deplanatus* Karsch, 1880, Luzon, Jagor» «Holotypus», ZMB.



Figs 41–52. *Rhene deplanata* (44–45, holotype); *R. habahumpa* (41, 46, holotype); *R. hinlalakea* (42–43, holotype); *Simaetha* cf. *leucomelas* (47–50, 51–52): 41, 44–45 — palpus, ventral and lateral view; 46 — tibial apophysis; 47–50 — palpus ventral, retrolateral and dorsal views; 51 — body, dorsal view; 52 — chelicera, posterior view. 41–43, 46 — quick sketches, drawn by Prószyński.

Рис. 41–52. *Rhene deplanata* (44–45, голотип), *R. habahumpa* (41, 46, голотип), *R. hinlalakea* (42–43, голотип) и *Simaetha* cf. *leucomelas* (47–50, 51–52): 41, 44–45 — пальпа самца, вентрально и латерально; 46 — отросток голени; 47–50 — пальпа самца вентрально, ретролатерально и сверху; 51 — тело, сверху; 52 — хелицера, спереди. 41–43, 46 — наброски, сделаны Prószyński.

COMPARATIVE MATERIAL. ♂ holotype «*Rhene hinlalakea* Barrion et Litsinger, 1995. Philippines: Leyte Is.» IIRI. ♂ holotype «*Rhene habahumpa* Barrion et Litsinger, 1995. Philippines: Mindanao Is., Misamis Oriental Prov., Claveria, Patrocenio Vill., 18 September 1898, E. Libetario». IIRI.

REMARK. The holotype of *Homalattus deplanatus* has a palpal structure that is almost identical to those of *Rhene hinlalakea* and *R. habahumpa*, recently described from the Philippines by Barrion & Litsinger, 1995 [pages 86–89, 89, Figs 44a–h, 45a–e]. The last two species

seem to be congeneric with the type species of the genus *Rhene*. The original placement of *Homalattus deplanatus* in the small African genus *Homalattus* White, 1841 cannot be discussed, because there is not a single drawing illustrating a *Homalattus* male.

DIAGNOSIS. The bulbus of the palp is typical for *Rhene*, although the embolus is somewhat different — single, straight and narrow (Figs 44–45), similar to *R. hinlalakea* (Figs 42–43), from which it differs by its

relative proportions. In *R. habahumpa* the embolus is more diagonal and the bulbus is broader (Fig. 41). The tibial apophysis (Fig. 46) is longer and more gently bent.

DESCRIPTION (present appearance of the specimen). Carapace flat and broad, dark brown, lighter posteriorly, covered with adpressed grayish white setae, which are longer around the eyes and on the lateral surfaces. Abdomen oval with a light brown scutum, grayish laterally. There are spots of whitish scales, laterally greyish. Clypeus light brown, with similarly colored setae.

Chelicerae, pedipalps, maxillae and labium brown. Underside of abdomen brownish gray. Legs brown, leg I robust, covered with gray and brown, upright setae.

Palpus (Figs 44–45) resembles those of other *Rhene* species (Figs 41–43, 46), except in the form of the embolus, which appears single, whereas the majority of *Rhene*-species have two distinct rami. However, in lateral view (Fig. 45) it could be interpreted as consisting of two rami, a ventral and a dorsal one, tightly pressed together, which should also be confirmed in other species. A similar embolus appears in the closely related Philippine species *R. hinlalakea* from Leyte Is. (Fig. 42) and *R. habahumpa* from Mindanao Is. (Fig. 41). In the latter species the embolus is more inclined.

DIMENSIONS. CL 3.18, EFL 1.86, AEW 1.8, PEW 2.88, AL 3.48.

DISTRIBUTION. Documented from the Philippines: Luzon Is.

Simaetha sp. cf. *leucomelas* (Thorell, 1891)
Figs 47–52.

MATERIAL. 1 ♂ non-type, with two labels — «*Rhanis* sp. n. aff. *albigera*. Manila» and «*Homalattus leucomelas* Thor.» ZMB.

REMARK. The correct identification of this specimen from the Philippines will require comparison with the type specimen of *Homalattus leucomelas* Thorell, 1891 from the Nicobar Islands, kept in the Zoologisk Museum Kobenhavn, but which has not been revised since its original description. However, due to the geographical distance between the Philippines and the Nicobar Islands, it is highly unlikely that they are conspecific.

Apart from superficial similarity, this specimen has nothing in common with the genus *Rhene* Thorell, 1869 (syn. *Rhanis* C.L. Koch, 1848 — preoccupied), which belongs to the subfamily *Dendryphantinae*. Of several genera with a broad and flattened carapace (Fig. 51), included in the group *Simaethae* by Simon [1903], only *Simaetha* Thorell, 1881 is well known, having recently been revised [Żabka, 1994].

According to Simon [1903: 830–844] *Simaetha* is characterized by having the anterior eyes forming a compact group on the frontal face, distant from the lateral edges, and by a long posterior cheliceral tooth, which is pillar shaped and apically split into 2 points (Fig. 52). These characters correspond well with features seen in this specimen (Fig. 52). Another potential generic placement is in *Stertinus* Simon, 1890 (in

which the anterior eyes are spread over the full width of the frontal face, and the anterior lateral eyes are separate from the anterior median eyes [Simon, 1903: 842, Logunov et al., 1997: 12–14]), but this seems less probable.

DESCRIPTION (present appearance of the specimen). Carapace very broad, broadest anteriorly and gradually narrowing posteriorly, with pitted surface, blackish brown with metallic shine, covered with whitish adpressed setae, upright anteriorly. Four spots covered with white scales (marked black on Fig. 51). Anterior lateral and median eyes form a tight group, spaced from lateral edges of the face by approximately one diameter of an anterior median eye. Embolus anterolateral, short, pin-like, with its base spreading diagonally over the major part of the tegulum (Fig. 47). Tibial apophysis short, triangular, slightly bent (Figs 48–50).

Abdomen with light yellow median longitudinal area, laterally grayish brown, with brown spots (apodemes), covered with minute whitish setae, with longer setae along the anterior edge. Underside of abdomen gray.

Clypeus low, dark brown, with white and grayish white setae. Chelicerae dark brown, pedipalps, maxillae and labium brown. Legs I robust, dark brown, with white and yellowish setae and brown spines. Legs II–IV delicate, grayish yellow.

DIMENSIONS. CL 2.4, EFL 1.2, AEW 1.56, PEW 2.46, AL –.

DISTRIBUTION. Documented from the Philippines: Luzon.

Telamonia livida (Karsch, 1880) **comb.n.**
Figs 53–55.

Plexippus lividus Karsch, 1880: 398 (♀).

Plexippus lividus: Roewer, 1954: 1635 («Nicht zu deuten!»).

Plexippus lividus: Prószyński, 1971: 459 (gives type specimen location).

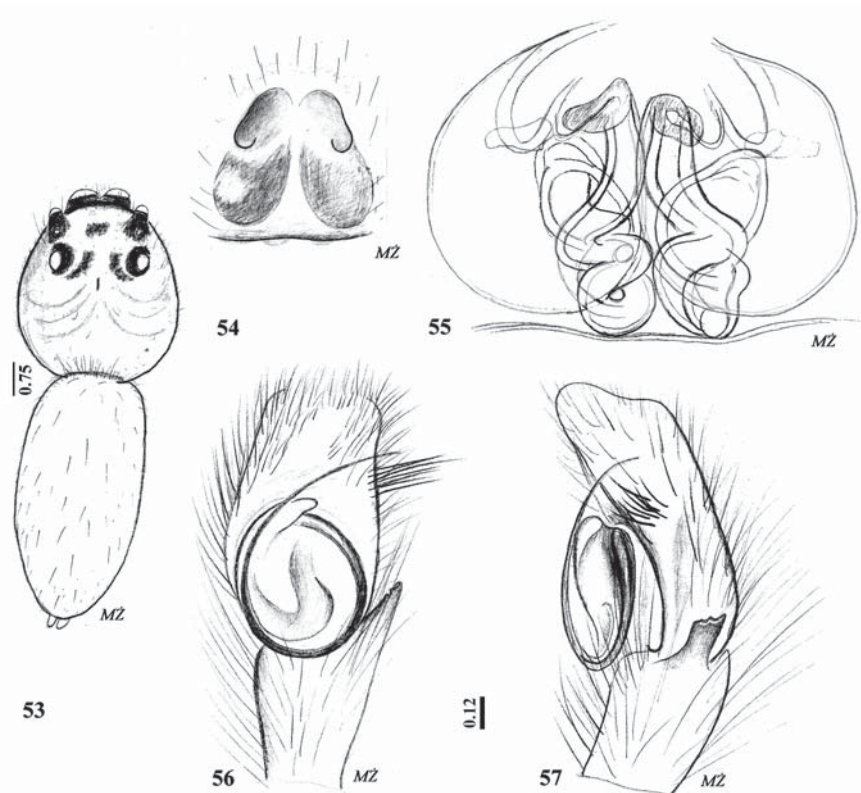
Plexippus lividus: Prószyński, 1995–2009: online.

Plexippus lividus: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♀ holotype [epigyne separate] «*Plexippus lividus* Luzon, Jagor» «Type». «ZMB 1722». ZMB.

REMARK. The internal structures of the epigyne (Fig. 55) have the same basic plan as those of *Telamonia festiva* Thorell, 1887, the type species of *Telamonia* Thorell, 1887, and are entirely different from those of the type species of *Plexippus*. The structures consist of a broad anterior pouch, a double spiral of spermathecae and an oval posterior chamber.

DESCRIPTION (present appearance of the holotype specimen). Female. Large spider with carapace robust, high and broad, orange-yellow with darker lines radiating from fovea, eye field yellow with brown central spot, dark around the eyes (Fig. 53). Covered with sparse white and yellow setae, somewhat denser near the eyes. Abdomen yellow, covered with adpressed yellow setae and a few orange bristles. Anterior spinnerets orange. Clypeus yellow, covered with numerous



Figs 53–57. Holotype of *Telamonia livida* (53–55) and lectotype of *T. setosa* (56–57): 53 — body, dorsal view; 53–54 — epigyne and its internal structures; 56–57 — palpus, ventral and lateral view.

Рис. 53–57. Голотип *Telamonia livida* (53–55) и лектотип *T. setosa* (56–57): 53 — тело, сверху; 53–54 — эпигина и внутренние структуры; 56–57 — палпа самца, вентрально и латерально.

white setae as well as a few longer yellow setae. Chelicerae robust, dark yellow; pedipalps yellow, maxillae and labium orange, sternum and underside of abdomen yellow. Epigyne with copulatory openings laterally, set in the anterior half of a pair of oval depressions (Fig. 54). Each copulatory duct begins with a broad membranous pouch, extending posteriorly along the whole epigyne and joining anteriorly a thick walled axial duct of the spermatheca, continued posteriorly, originally straight, then forming a superficial spiral around a short coil of an internal spiral, which joins an oval, posterior chamber (Fig. 55).

Legs robust, long, yellowish orange, with long upright yellow setae and spines.

Dimensions. CL 5.6, EFL 1.9, AEW 2.9, PEW 2.9, AL 7.4.

DISTRIBUTION. Documented from the Philippines: Luzon.

Telamonia setosa (Karsch, 1880) **comb.n.**

Figs 56–57.

Plexippus setosus Karsch, 1880: 398 (♂).

Plexippus setosu: Roewer, 1954: 1635 («Nicht zu deuten!»).

Thiania setosa: Prószyński, 1971: 478 (gives type specimen location).

Telamonia setosa: Prószyński, 1995–2009: online **comb.n.**

Plexippus setosus: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♂ lectotype (designated here, with palpus separated), 1♂ paralectotype «*Plexippus setosus* Karsch 1880, typen. Luzon, Jagor» «ZMB 1705». ZMB.

REMARK. The transfer to the genus *Telamonia* Thorell, 1887 is based on the similarity of the palpus to that of *Telamonia festiva* Thorell, 1887, the type species of the genus, which is entirely different from the palpus of the type species of *Plexippus*. The bulbus (Fig. 56) has a characteristic flap, resembling that of *Telamonia elegans* (Thorell, 1887), but differs in being directed forwards rather than transversally. The embolus encircles the bulbus. There is a bunch of stiff black setae retrolaterally on the cymbium, characteristic of *Telamonia*. The tip of the tibial apophysis is blunt and serrated (Fig. 57).

DESCRIPTION (present appearance of the specimen). Carapace robust, broad and high, brown, black around the eyes. Broad streaks of adpressed white setae medially and along ventral edge of carapace; tufts of reddish setae near the eyes, as well as long brownish gray setae.

Abdomen narrow and long, with median yellowish orange streak covered with numerous white setae, followed by lateral black streak; gray, upright bristles over the whole surface. Spinnerets dark grayish brown. Clypeus dark brown with numerous white and gray setae and bristles. Chelicerae robust, blackish brown

with white setae. Maxillae, labium and sternum dark brown, underside of abdomen dark gray. Legs dark yellow, with darker brown patellae and tibiae I–II, covered with long, upright setae, white and yellow, spines light brown.

Dimensions. CL 5.6, EFL 2.1, AEW 3.0, PEW 3.1, AL 6.9.

DISTRIBUTION. Documented from the Philippines: Luzon.

Genus *Thiania* C.L. Koch, 1846

REMARK. *Thiania* C.L. Koch, 1846 is a well known genus of E and SE Asian jumping spiders, comprising some 20 nominal species, immediately recognizable by their characteristic body shape, with a rectangular, flattened carapace and robust legs I. These are held level with the carapace, are bent with a right angle between the femur and patella, and with the distal part held parallel to the long axis of the carapace. The abdomen is elongate, narrower than the carapace; the body is covered with light reflecting scales, arranged in bars and spots. The palpus is typical for Euophryinae, usually with an oversized tibial apophysis. The epigyne has two broad «windows» with copulatory openings laterally at the posterior rim. From here, the distal parts of the copulatory ducts run transversally to the centre, medially changing to being directed longitudinally, posteriorly they form a characteristic bend and finally join the globular spermathecae. The best known species is *Thiania bhamoensis* Thorell, 1887, distributed from China and Myanmar to Indonesia, documented by numerous diagnostic drawings and often photographed. On the other hand, the type species of the genus, *Thiania pulcherrima* C.L. Koch, 1846 remains relatively poorly known and requires revision.

Thiania coelestis (Karsch, 1880) **comb.n.**
Figs 58–59.

Hasarius coelestis Karsch, 1880: 396 (♀).

Hasarius coelestis: Roewer, 1954: 1523. («Nicht zu deuten!»).

Hasarius coelestis: Prószyński, 1971: 412 (gives type specimen location).

Thiania coelestis: Prószyński, 1995–2009: online **comb.n.**

Hasarius coelestis: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♀ holotype [epigyne separated] — «*Hasarius coelestris* [lapsus!] Karsch, 1880, Luzon, Jagor» «Holotypus». «ZMB 1586».

Comparative species. ♂♀ holotype — *Thiania viscaensis* Barrion, Litsinger, 1995. Philippines: Leyte Is., Baybay, Visaya State College of Agriculture, 16 July, 1985. A.T. Barrion». IRR.

REMARK. The holotype specimen is entirely different from, and not related to *Hasarius adansoni* (Audouin, 1826), the type species of *Hasarius* Simon, 1871. This transfer to the genus *Thiania* C.L. Koch, 1846 is based on the similarity of the internal structures of the epigyne with those of 5 species of *Thiania*, for which the structures of the epigynes are documented (see remark under *Thiania*).

DIAGNOSIS. The distance between the copulatory openings is equal to the width of both spermathecae. The transverse part of the copulatory ducts is broad and thick walled (Fig. 59). In the related Philippine species *Thiania viscaensis* Barrion & Litsinger, 1995 the ducts are much shorter and thinner (Fig. 60) and the spermathecae are twice as large, but relatively thin walled.

DESCRIPTION (present appearance of the specimen). Specimen strongly macerated. Carapace long, broad and flattened, brown, eye field blackish brown, covered with sparse and short brown and gray setae. Scales with metallic shine around eye field and in its anterior region. Abdomen macerated with no coloration preserved. Clypeus brown with some gray and brown setae. Chelicerae and pedipalps dark brown. Maxillae and labium long, light brown. Sternum brown, surrounded by brown setae. Legs long, dark brown with tarsi and metatarsi lighter (dark yellow); apart from gray setae there are some blue-gray metallic, light reflecting scales.

Epigyne with a pair of «windows» covered by a white membrane. Copulatory openings lateral at mid length of epigyne, leading to transverse, broad copulatory ducts, bent at a right angle near the midline of the epigyne, running posteriorly, and at the posterior end of the epigyne turning sideways and joining the oval spermathecae (Figs 58–60).

Dimensions. CL 4.0, EFL 1.5, AEW 2.4, PEW 2.3, AL 4.9.

DISTRIBUTION. Documented from the Philippines: Luzon.

Thiania simplicissima (Karsch, 1880) **comb.n.**
Figs 61–66.

Plexippus simplicissimus Karsch, 1880: 399 (♂♀).

Plexippus simplicissimus: Roewer, 1954: 1635 («Nicht zu deuten!»).

Plexippus simplicissimus: Prószyński, 1971: 460 (gives type specimen location).

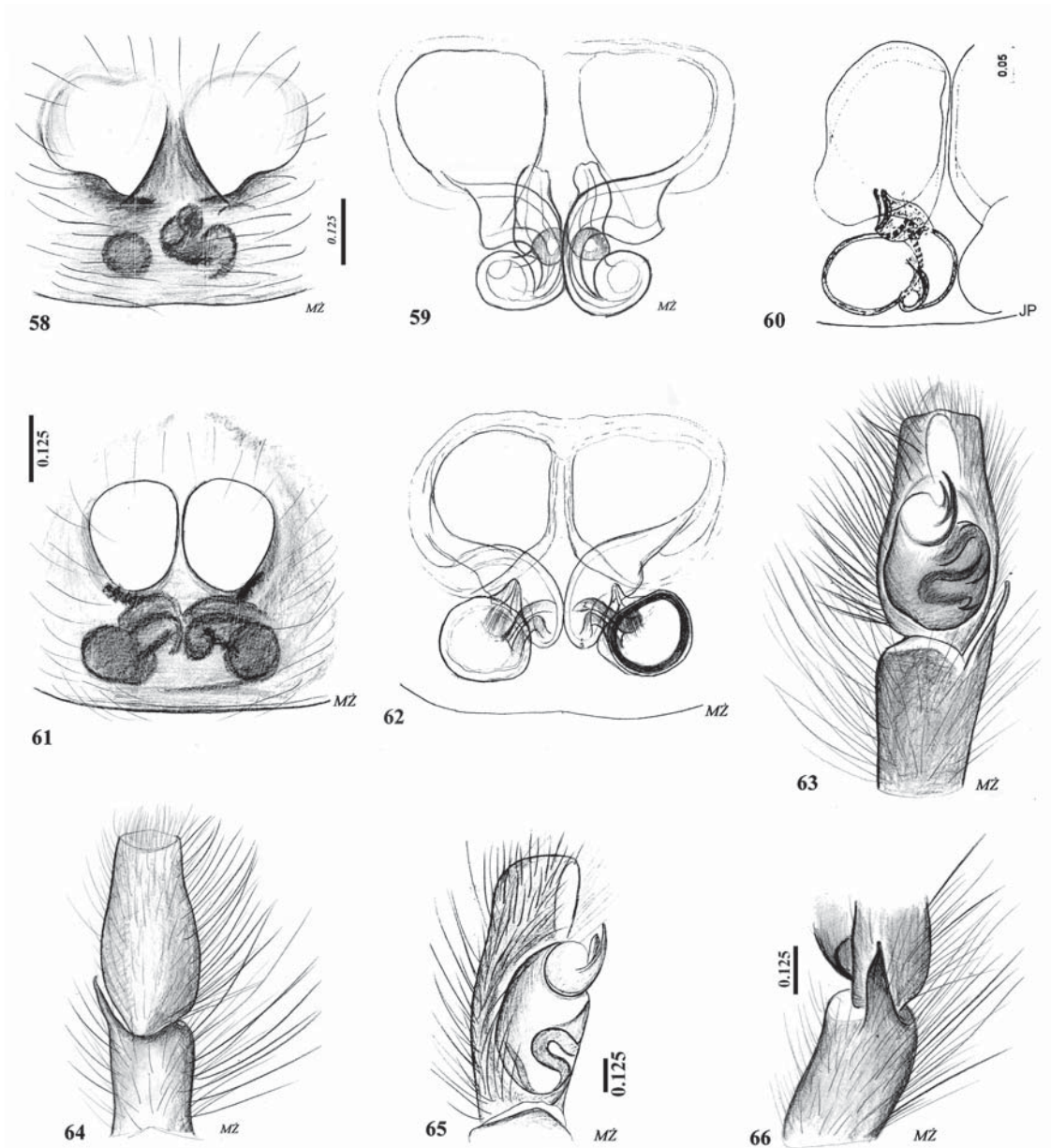
Chalcotropis simplicissimus: Prószyński, 1995–2009: online.

Plexippus simplicissimus: Platnick, 2000–2009: online (nomen dubium).

MATERIAL. ♀ Lectotype (designated here, epigyne separate) «*Plexippus simplicissimus* Karsch, 1880, Luzon, Jagor» «Type», «ZMB 1711».

2 ♂♂ paralectotypes (designated here, 1 palpus separate) «*Plexippus simplicissimus* Karsch, 1880, Luzon, Jagor» «Type» «ZMB 1712». ZMB.

REMARK. The specimen is entirely different from, and not related to *Plexippus paykulli* (Audouin, 1826), the type species of *Plexippus* C.L. Koch, 1846. The transfer of the female to the genus *Thiania* C.L. Koch, 1846 is, as in the previous species, based on the similarity of the internal structures of the epigyne with those of 5 species of *Thiania*, for which the structures of the epigyne are documented (see also remark under *Thiania*). The males are presumably conspecific, with a palpus resembling those of the majority of *Thiania* species, although it has a smaller tibial apophysis and a double embolus. However, the latter character is documented also for two other *Thiania* species.



Figs 58–66. Holotype of *Thiania coelestis* (58–59), lectotype of *T. viscaensis* (60) and holotype of *T. simplicissima* (61–66): 61–62 — epigyne and its internal structures; 63–66 — palpus, ventral, dorsal and prolateral view, and its tibial apophysis, retrolateral view. 60 — sketch drawn by J. Prószyński.

Рис. 58–66. Голотип *Thiania coelestis* (58–59), лектотип *T. viscaensis* (60) и голотип *T. simplicissima* (61–66): 61–62 — эпигина и внутренние структуры; 63–66 — палпы самца, вентрально, сверху и пролатерально, и отросток голени, ретролатерально. 60 — набросок сделанный J. Prószyński.

DIAGNOSIS. Female recognizable by the proportions of the internal structures of the epigyne, especially the short, thin ducts turning anteriorly, and the large spermathecae (Fig. 62). Male recognizable by the structure of the palpus (Figs 63–66).

DESCRIPTION (present appearance of the specimens). Male paralectotypes. Carapace flattened and broad, as in other *Thiania* species, dark brown, eye field black with metallic green shine, covered with sparse gray and brown setae, dark brown bristles around

eyes. Abdomen light reflecting, dark brown with two median spots of white scales and an anterior bar of gray setae with a metallic shine.

Palpus with relatively small apophysis and short embolus, split into two rami. The embolus in this genus is usually single, but a biramous embolus occurs also in *Thiania suboppressa* Strand, 1907 and *T. demissa* (Thorell, 1892). Chelicerae robust, blackish brown, maxillae and labium similarly colored. Leg I robust and very long, brownish gray, with sparse white scales,

setae and brown spines; tarsi orange. Remaining pairs of legs shorter and thinner.

Dimensions of male. CL 3.90, EFL 1.44, AEW 2.28, PEW 2.34, AL 3.78.

Female lectotype. Appearance resembling male. Epigyne (Figs 61–62) resembling both *Thiania coelestis* (Figs 58–59) and *Thiania viscaensis* Barrion & Litsinger, 1995 (Fig. 60), but it differs in proportions of details.

Dimensions of female. CL 3.54, EFL 1.20, AEW 2.10, PEW 2.16, AL 4.74.

DISTRIBUTION. Documented from the Philippines: Luzon.

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