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A new dwarf theraphosid spider species of the genus *Phlogiellus* Pocock, 1897 (Aranei: Theraphosidae) from Vietnam

Новый вид карликовых птицеедов рода *Phlogiellus* Pocock, 1897 (Aranei: Theraphosidae) из Вьетнама

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KEY WORDS: Araneae, fauna, diagnosis, distribution, Mygalomorphae, Selenocosmiinae.
КЛЮЧЕВЫЕ СЛОВА: Araneae, фауна, диагноз, распространение, Mygalomorphae, Selenocosmiinae.

ABSTRACT. A new alyrate species of the dwarf theraphosid genus *Phlogiellus* Pocock, 1897, *P. birulai* Bariev et Logunov, sp.n., is described from the Bidoup–Nui Ba National Park, Vietnam based on a female series. The new species can be clearly distinguished from other alyrate congeners in possessing a unique conformation of the spermathecae, which are almost uniform width throughout their length. A male lectotype is designated for *Selenocosmia subinermis* Giltay, 1934, described from Bokor (Cambodia), with notes on the nomenclature of this taxon.

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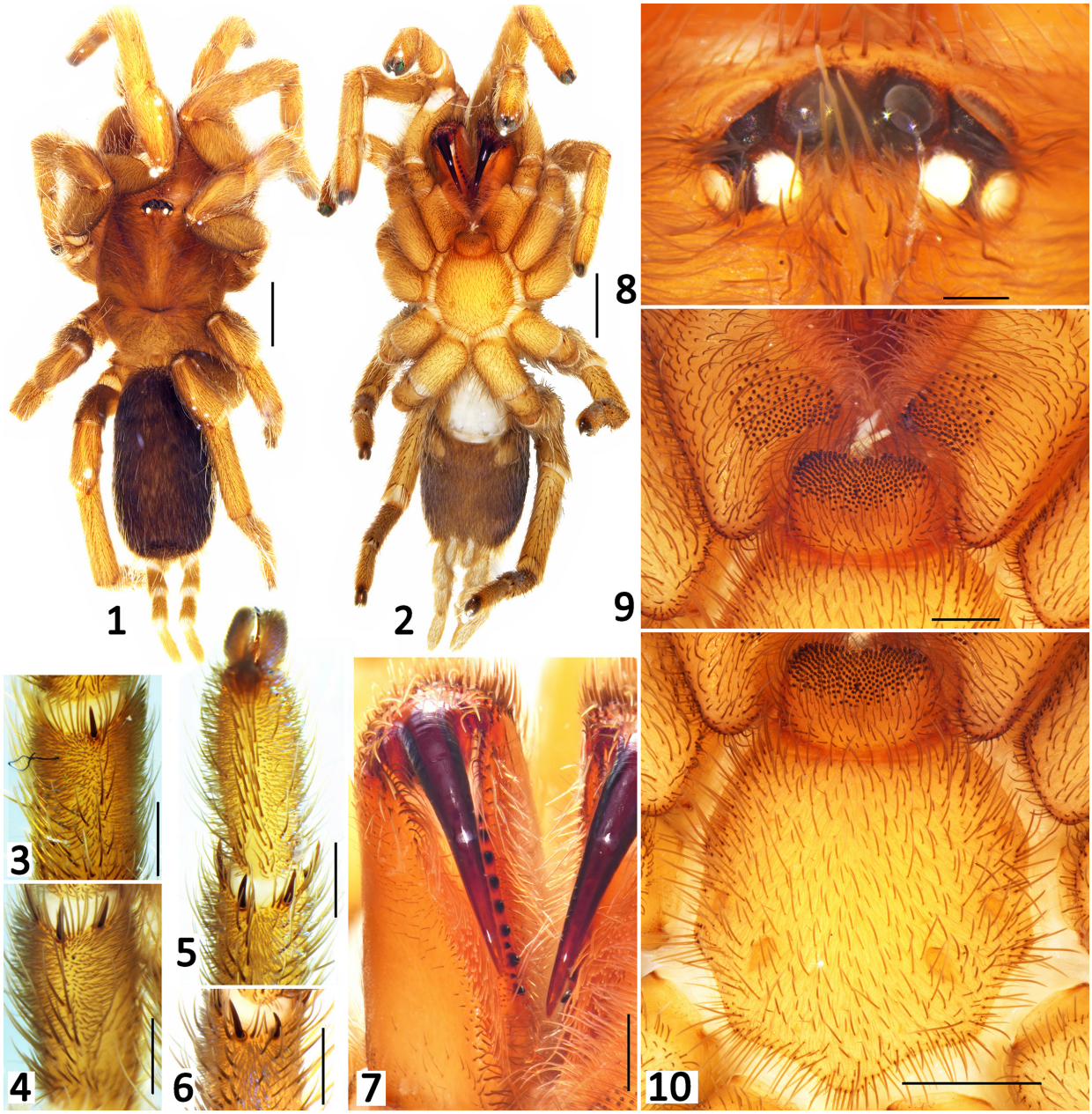
РЕЗЮМЕ. Новый алиратный вид карликовых птицеедов рода *Phlogiellus* Pocock, 1897, *P. birulai* sp.n., описан по самкам из национального парка Бидуп Нуи Ба, Вьетнам. Описываемый вид хорошо отличим от других алиратных видов рода благодаря характерному только для него строению сперматек, которые имеют практически одинаковую ширину по всей длине. Выделен лектотип для *Selenocosmia subinermis* Giltay, 1934 из Бокора (Камбоджа) и обсуждена номенклатура этого таксона.

Introduction

The dwarf theraphosid (Theraphosidae Thorell, 1869) genus *Phlogiellus* Pocock, 1897 currently consists of 27 valid species [World Spider Catalog, 2024] that are confined to the mainland and island parts of Southeast Asia [Schmidt, 2003; Nunn *et al.*, 2016; Chomphuphuang *et al.*, 2017; Sivayyapram *et al.*, 2020; Lin *et al.*, 2021a, b].

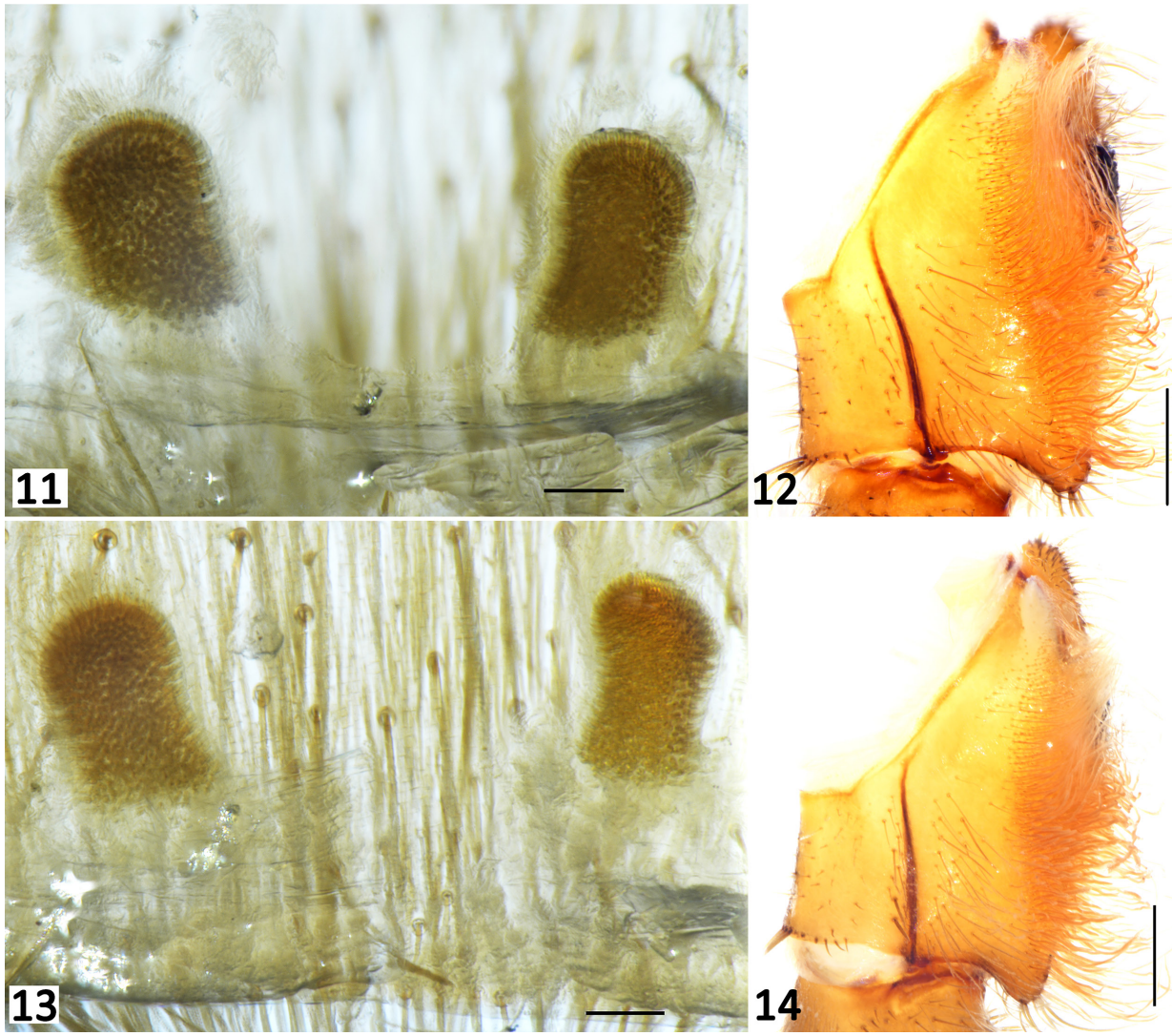
Despite a revision [Nunn *et al.*, 2016] and subsequent descriptions of new species [Chomphuphuang *et al.*, 2017; Sivayyapram *et al.*, 2020; Lin *et al.*, 2021a, b], the genus still remains problematic in many ways. The 2016 revision contained quite a few shortcomings: a generic diagnosis was made partly on unreliable characters prone to variation, photographs of the male palpal bulbs were not detailed enough, with no analysis of the keelation given, and the types of all newly-described species have never subsequently been deposited in the Queensland Museum, preventing other researchers from being able to independently examine these specimens [Sivayyapram *et al.*, 2020; D. Sherwood pers. comm., 4.09.2024]. The composition of *Phlogiellus* is not fully resolved because there is no consensus regarding the position of the *Yamia* species group which was originally described as the genus of its own, *Yamia* Kishida, 1920 [Kishida, 1920], but then synonymised with *Phlogiellus* [West *et al.*, 2012]. That said, the main diagnostic character of this group — the absence of maxillary lyra — could equally be interpreted either as a synapomorphy for '*Yamia*' as a taxon of (sub) genus rank, or as a secondary character originating within the genus *Phlogiellus* repeatedly [Kishida, 1920; Haupt, Schmidt, 2004; Raven, 2005; Chomphuphuang *et al.*, 2017; Sivayyapram *et al.*, 2020]. Resolving taxonomic controversies of the genus *Phlogiellus* and the *Yamia* species group lies beyond the scope of the present paper and requires further studies.



Figs 1–10. Holotype ♀ of *Phlogiellus birulai* sp.n. (ARA_ARA_0000689): 1 — body, dorsal view; 2 — same, ventral view; 3 — ventral spine of met. I; 4 — ventral spines of met. II; 5 — ventral spines of met. III; 6 —ventral spines of met. IV; 7 — right chelicera, ventral view; 8 — eye tubercle, dorsal view; 9 — labium, ventral view; 10 — sternum, ventral view. Scale bars: 0.5 mm (3–9), 1 mm (10), 2 mm (1–2).

Рис. 1–10. Голотип ♀ *Phlogiellus birulai* sp.n. (ARA_ARA_0000689): 1 — тело, вид сверху; 2 — то же, вид снизу; 3 — вентральные шипы предлапки I; 4 — вентральные шипы предлапки II; 5 — вентральные шипы предлапки III; 6 — вентральные шипы предлапки IV; 7 —правая хелицера, вид снизу; 8 — глазной бугорок, вид сверху; 9 — нижняя губа, вид снизу; 10 — грудина, вид снизу. Масштаб: 0,5 мм (3–9), 1 мм (10), 2 мм (1–2).

To date, only a single *Phlogiellus* species possessing maxillary lyra has been recorded from Vietnam: *Phlogiellus subinermis* (Giltay, 1934) [Giltay, 1934: sub *Selenocosmia*], but see below under ‘Discussion’. In this paper, based on two adult females, a new alyrate *Phlogiellus* species (i.e., formally belonging to the *Yamia* group) from the Bidoup–Nui Ba National Park, Da Lat Plateau, Vietnam is described and diagnosed.



Figs 11–14. Holotype ♀ (11–12) and paratype ♀ (13–14) of *Phlogiellus birulai* sp.n. (ARA_ARA_0000689): Spermathecae; 11, 13 — spermathecae; 12, 14 — left maxilla, prolateral view. Scale bars: 0.1 mm (11, 13), 0.5 mm (12, 14).

Рис. 11–14. Голотип ♀ (11–12) и паратип ♀ (13–14) *Phlogiellus birulai* sp.n. (ARA_ARA_0000689): 11, 13 — сперматеки; 12, 14 — левая максилла, вид спереди-сбоку. Масштаб: 0,1 мм (11, 13), 0,5 мм (12, 14).

Material and methods

The material studied in the present work was collected by the second author during an expedition to the Bidoup–Nui Ba National Park organized and supervised by the Joint Russian-Vietnamese Tropical Research and Technological Centre (Hanoi) in October – November 2023 (permit: 378/VQG-TTNC). The type specimens of the new species have been deposited in the Zoological Institute, the Russian Academy of Sciences, St. Petersburg, Russia (ZISP; curator: D.V. Logunov).

Spiders were collected and preserved in 70% ethanol; female spermathecae were dissected and cleaned following the method of Smith [1990]. The description format follows the format for theraphosids by Sherwood *et al*. [2020], the terminology adopted for selenocosmiines follows Sivayyapram *et al.* [2020]. The total leg length is given without taking into account the coxa + trochnater length. All measurements are in mm. Unless otherwise stated, the structures on the right body side are described/measured.

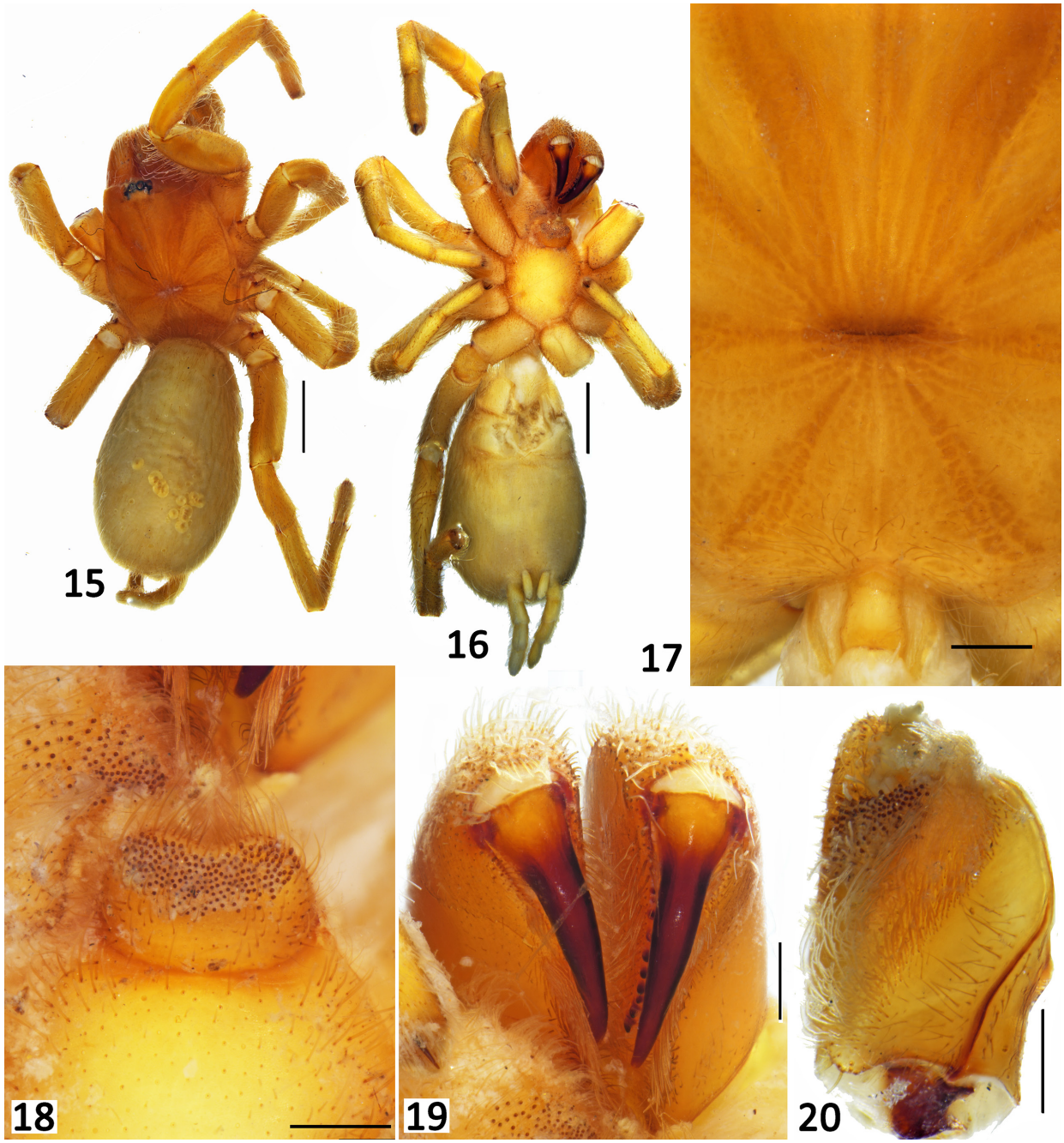
Digital photos were made using a Nikon SMZ25 stereomicroscope with a DS-L3 DS camera attached. The distributional map was produced by using the online mapping software SimpleMappr [Shorthouse, 2010].

Abbreviations used in the text are as follows: ALE — anterior lateral eye; AME — anterior median eye; fem. — femur; met. — metatarsus; pat. — patella; PLE — posterior lateral eye; PME — posterior median eye; PLS — posterior lateral spinnerets; PMS — posterior median spinnerets; tar. — tarsus; tib. — tibia.

Description

Phlogiellus birulai Bariev et Logunov, **sp.n.**
Figs 1–14, Map.

TYPES. Holotype ♀ and paratype ♀ (ZISP, ARA_ARA_0000689), Vietnam, Lam Dong Prov., Lac Durong Distr., Bidoup–Nui Ba National Park, sparse pyrogenic pine forest with *Pinus kesiya* (12°11′26.86″N,



Figs 15–20. *Phlogiellus* sp. (juv. ♂), earlier determined by L. Giltay as *P. subinermis* Giltay, 1934 (ARA_ARA_0000674): 15 — body, dorsal view; 16 — same, ventral view; 17 — fovea, dorsal view; 18 — labium, ventral view; 19 — chelicerae, ventral view; 20 — left maxilla, prolateral view. Scale bars: 0.5 mm (17–20), 2 mm (15–16).

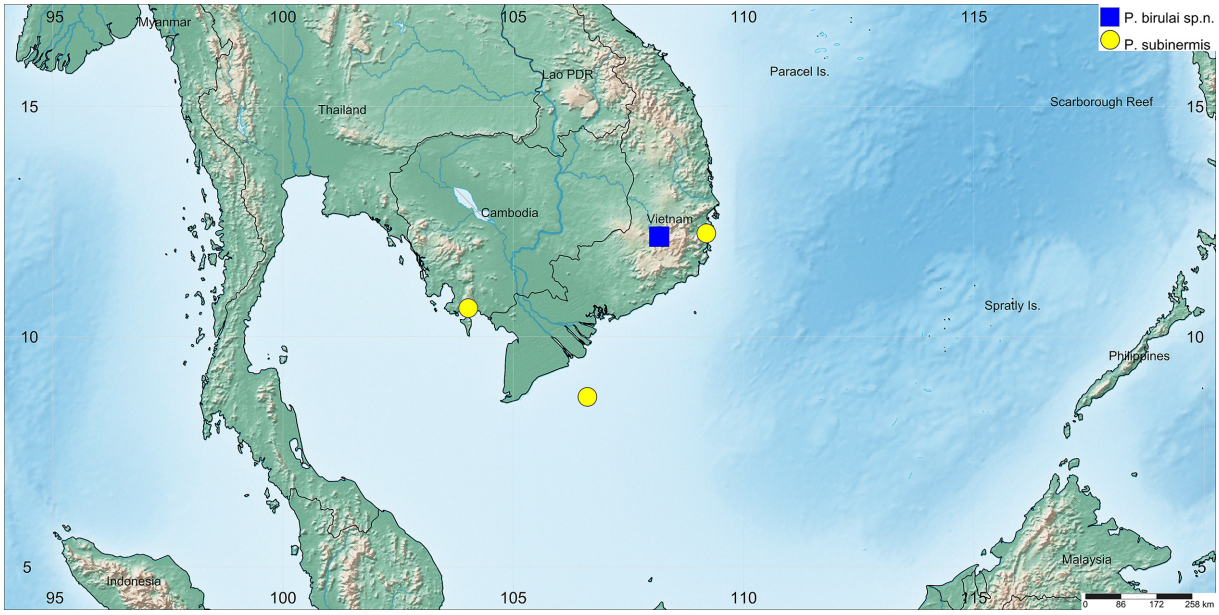
Рис. 15–20. *Phlogiellus* sp. (юв. ♂), ранее определен Л. Гилтаем как *P. subinermis* Giltay, 1934 (ARA_ARA_0000674): 15 — тело, вид сверху; 16 — то же, вид сверху; 17 — фовеа, вид сверху; 18 — нижняя губа, вид снизу; 19 — хелицеры, вид снизу; 20 — левая максилла, вид спереди-сбоку. Масштаб: 0,5 мм (17–20), 2 мм (15–16).

108°10′47.40″E), c. 1536 m a.s.l., hand collecting from the ground, 30.10–11.11.2023, D.V. Logunov.

OTHER MATERIAL. VIETNAM: 2 juv. (ZISP, ARA_ARA_0000689), together with the holotype; 1 juv. ♂ (ZISP, ARA_ARA_0000674: det. by L. Giltay in 1932 as *P. subinermis*; Figs 15–20), Indochine (no exact locality); donation of C.N. Dawydoff [880-961].

ETYMOLOGY. The new species is dedicated to the famous Russian zoologist, Prof Alexei Andreevich Byalynitsky-Birula (1864–1937), a renowned zoologists and expert on Scorpiones and Solifugae.

DIAGNOSIS. *Phlogiellus birulai* Bariev et Logunov, sp.n. belongs to the *Yamia* species group (*sensu* Haupt & Schmidt [2004]), which is diagnosed by the absence of maxillary lyra (Figs 12, 14). Thus, *P. birulai* sp.n. can be distinguished from all congeners except *P. aper* (Simon, 1891), *P. brevipes* (Thorell, 1897), *P. bundokalbo* (Barrion et Litsinger, 1995), *P. daweiensis* Sivayyapram et Warrit, 2020, *P. longipalpus* Chomphuphung *et al*., 2017, *P. moniqueverdezae* Nunn *et al*., 2016, *P. mutus* (Giltay, 1935), *P. quanyui* Lin *et al*., 2021, *P. raveni* Sivayy-



Map. Collecting localities of two *Phlogiellus* species in Vietnam and Cambodia, based on literature and original data.
Карта. Точки находок двух видов *Phlogiellus* во Вьетнаме и Камбодже, по литературным и оригинальным данным.

apram et Warrit, 2020, and *P. watasei* (Kishida, 1920) by this character state.

It can be distinguished from *P. brevipes* by the unilobular receptacles (not so in *P. brevipes*, if the information given by Sivayyapram e*t al*. [2020] is correct), and from all other species of the *Yamia* group, except *P. aper* (known only from the male), by spermathecal morphology (Figs 11, 13): straight receptacles, with nearly total absence of neck constriction on the receptacles and absence of basal flaring, giving them an almost uniform width throughout their length (*vs.* developed neck constriction before lobes in *P. daweiensis*, *P. quanyui*, *P. moniqueverdezae*, *P. mutus*, *P. quanyui*, and *P. raveni*; receptacles curved in *P. bundokalbo* and *P. longipalpus*; receptacle bases flared in *P. watasei*).

The following are worth mentioning as useful additional diagnostic characters. From all congeners of the *Yamia* group, but *P. watasei* and *P. quanyui* (for the latter species scopula structure is not yet described), *P. birulai* sp.n. differs in having divided tarsal scopulae on tar. and met. I–IV (not-divided at least on one pair of legs in the related species; cf. Figs 3–6 with fig. 28 in Chomphuphuang *et al.* [2017] and description in Sivayyapram *et al.* [2020]). From *P. brevipes*, for which only a verbal description of the genitalia is given in the literature [Sivayyapram *et al.*, 2020], it can be further distinguished by the number of distal spines on met.: viz., in *P. brevipes*, legs I and II spineless, met. legs III and IV have two spines each [Pocock, 1897], whereas in *P. birulai* sp.n. — one on leg I, 3 on leg II and at least 3 on legs III and IV.

Conversely, the new species is differentiated from *P. aper*, for which the female is unknown, based on geography, as this species was described from Java [Simon, 1891], and it is highly unlikely that the same species could occur in Da Lat Plateau of Vietnam, which is known for its high regional endemism (Logunov [2024], as well as references cited in this paper).

DESCRIPTION: FEMALE (holotype). Total length without chelicerae: 11.50. Carapace: length 5.00, width 4.2. Caput: slightly raised. Ocular tubercle: raised, length 0.50, width 0.90. Eyes: ALE > AME > PME > PLE, anterior eye row procurved, spoterior row slightly recurved. Clypeus: narrow; clypeal fringe: medium. Fovea: deep, slightly recurved. Chelicera: length 2.40, width 1.20. Abdomen: length 6.20, width 3.50. Maxilla: with 150–160 cuspules covering approximately 20% of the proximal edge. Labium: length 0.90, width 1.30 with 200-220 cuspules, most separated by 0.5–1.0 times the width of a single cuspule. Labial-sternum mounds: separate, raised. Sternum: length 2.50, width 2.40, with three pairs of sigillae. Tarsi I–IV divided by line of setae. Tarsal claws: 2 (I-III), 3 (IV). Metatarsal scopulae: I 60%; II 60%; III 60%; IV 40%. Lengths of legs and palpal segments (see Table): 4123. Spination: (right sight): metatarsus I v 0–0–1 (apical), II v 0–0–3 (apical), III d 0–0–2 (apical), v 0–0–3 (apical), IV d 0–0–1 (apical), v 0–0–2 (apical). Spination: (left sight): metatarsus I v 0–0–1 (apical), II v 0–0–3 (apical), III d 0–0–2 (apical), v 0–0–3 (apical), p 0–0–1 (apical), IV d 0–0–3 (apical), v 0–0–3 (apical). PLS with three segments: basal 1.50, medial 1.00, digitiform apical 1.00. PMS with one segment. Spermathecae with two receptacles, longer than wide, with single lobe at apex, minimal to no neck constriction present. Stridulation organ: not present (intercheliceral pegs and basomedial spines absent; maxillary lyra absent). Colour (in alcohol): overall yellowish brown except abdomen, abdomen dark brown.

DISTRIBUTION. Only the type locality (Map).

Discussion

The second *Phlogiellus* species reported from Vietnam to date is the lyrate *P. subinermis* [Giltay, 1934: sub *Selenocosmia*; Nunn *et al.*, 2016]. However, both the record of this species in Vietnam and its taxonomic status are somewhat of a challenge.

Giltay [1934] described this species from two adult males and a single adult and two immature females whose collecting localities lied far away from each other (Map). One male was collected from ‘Bokhor’ (=Bokor, Cambodia; approximate coordinates for Bokor Hill Station, *c.* 10°37’21.0″N, 104°01′36.5″E), no date [Giltay, 1934: 4, ♂ type]. The second male was collected the Vietnamese island ‘Poeloe Condore’ (=Poulo Condor

Table. *Phlogiellus birulai* sp.n. holotype female (ZISP, ARA_ARA_0000689), length of legs and palp.
Таблица. *Phlogiellus birulai* sp.n. голотип самка (ZISP, ARA_ARA_0000689), длина ног и пальпы.

	I	II	III	IV	Palp
Femur	4.00	3.40	3.00	4.20	0.90
Patella	2.60	2.10	2.00	2.20	2.40
Tibia	3.20	2.60	1.80	3.40	1.70
Metatarsus	2.10	2.20	2.00	3.40	–
Tarsus	1.80	1.80	1.50	1.90	0.80
Total	13.70	12.10	10.30	15.10	5.80

Island, or Côn Sơn island; *c.* 8°41′35″N, 106°36′34″E), IV.1931 [Giltay, 1934: 4, fig. 1A]. The adult female was taken from Vietnam, Nahtrang (=Nha Trang City; *c.* 12°14′42″N, 109°11′30″E), V.1930 [Giltay, 1934: 4, ♀ type]. There were also two immature females: one from 'Ponto Dama, Golfe du Siam, 24.XI.1931' and one from 'Indo-Chine', with no exact locality [Giltay, 1934: 4]. All specimens were collected by Dr Dawydoff as mentioned by Giltay, i.e. by Konstantin Nikolaevich Davydov (=C.N. Dawydoff, 1877–1960), an embryologist and marine zoologist who is famous for his long-term studies of the Indochina fauna (see Fokin [2006]).

The problem with *P. subinermis* is related to its uncertain nomenclature and the impossibility to re-examine the type series. **(1)** Nunn *et al.* [2016: 45] mentioned to have studied the holotype male from Cambodia and the paratype female from Vietnam, both deposited in the Royal Belgian Institute of Natural Sciences (RBINS, Bruxelles), but this information is rather confusing. In the original description [Giltay, 1934: 4] labelled both the male from Cambodia and the female from Vietnam as 'types', which actually makes them syntypes, since none of them can be classified as the name-bearing type [ICZN, 1999: Article 72.1.2]. **(2)** Surprisingly, although Giltay labelled the Cambodian male as a 'type', he in fact illustrated the second male from Côn Sơn Island in Vietnam [Giltay, 1934: fig. 1A]. **(3)** It is unclear how Giltay [1934] could have matched a male from Cambodia and a female from Vietnam as belonging to the same species; no explanation was given. **(4)** The current whereabouts of the type series of *Selenocosmia subinermis* remains unknown. We have contacted the curators at RBINS (Dr Wouter Deconink) and the Muséum national d'histoire naturelle in Paris (Dr Christine Rollard) in search of this type series, but neither of these museums has it. The type series of *S. subinermis* was also not listed in Nunn *et al.* [2016], although the authors mentioned the species numerous times in their paper, including the key, diagnoses, etc. **(5)** Finally, in the ZISP collection we have found an immature *Phlogiellus* juvenile male collected from Indochina (with no exact locality) by Dr Dawydoff which was identified by Giltay in 1932 as *S. subinermis* (see above under 'Other material'; Figs 15–20). It is likely to be the same immature specimen that was mentioned by Giltay [1934: 4]. This juvenile male is alyrate (Fig. 20), whereas true *P. subinermis* (*sensu* Nunn *et al.* [2016: ID Key, p. 7]) should have the maxillary lyra. Thus, it is likely that the original sex matching for the type series of *S. subinermis* by Giltay [1934] was incorrect, and, if so, the true *P. subinermis* does not occur in Vietnam.

In view of the above circumstances, it seems crucial to fix the species name *Selenocosmia subinermis* by designating the lectotype [ICZN, 1999: Article 74]. We hereby designate the former syntype male from Cambodia (Bokor) labelled by Giltay himself [1934: 4] as the 'type' and presented by Nunn *et al.* [2016: 45] as 'the holotype male' as the lectotype herein (should be kept in RBINS, but not found on our request). All other specimens mentioned in the original description are hereby paralectotypes. Thus, *P. subinermis sensu stricto* possesses maxillary lyra [Nunn *et al.*, 2016], and the females of *P. birulai* sp.n. studied in the present paper cannot belong to the same species, as all specimens are alyrate (Figs 12, 14, 20).

Compliance with ethical standards

CONFLICT OF INTEREST: The authors declare that they have no conflict of interest.

Ethical approval: No ethical issues were raised during our research.

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References

Barrion A.T., Litsinger J.A. 1995. Riceland spiders of South and Southeast Asia. Wallingford, UK: CAB International. 700 p.

Chomphuphuang N., Smith D., Wongvilas S., Sivayyapram V., Songsangchote C., Warrit N. 2017. New species of Southeast Asian Dwarf Tarantula from Thailand: *Phlogiellus* Pocock, 1897 (Theraphosidae, Selenocosmiinae) // ZooKeys. Vol.684. P.57–73.

Fokin S.I. 2006. [Russian scientists in Neapol.] Aleteya, Historic Books. 380 p. [In Russian]

Giltay L. 1934. Description d'une espèce nouvelle de *Selenocosmia* du sous-genre *Phlogiellus* // Bulletin du Musée royal d'histoire naturelle de Belgique. Vol.10. No.10. P.1–4.

Haupt J., Schmidt G. 2004. Description of the male and illustration of the female receptacula of *Yamia watasei* Kishida, 1920 (Arachnida,

Araneae, Theraphosidae, Selenocosmiinae) // Spixiana. Vol.27. No.3. P.199–204.
ICZN 1999: International code of zoological nomenclature, Fourth edition. UK, London. 306 p.
Kishida K. 1920. Netes (sic!) on *Yamia watasei*, a new spider of the family Aviculariidae // Zoological Magazine, Tokyo. No.32. P.299–307.
Lin Y., Li S., Chen H. 2021a. A new species of the spider genus *Phlogiellus* (Araneae, Theraphosidae) from Hainan, China // Zootaxa. Vol.4915. No.2. P.289–293. doi:10.11646/zootaxa.4915.2.9
Lin Y.J., Marusik Yu.M., Gao C.X., Xu H., Zhang X.Q., Wang Z.Y., Zhu W.H., Li S.Q. 2021b. Twenty-three new spider species (Arachnida: Araneae) from Asia // Zoological Systematics. Vol.46. No.2. P.91–152. doi:10.11865/zs.2021201
Logunov D.V. 2024. Jumping spiders (Araneae: Salticidae) of the Bidoup–Nui Ba National Park, Lam Dong Province, Vietnam // Arachnology. Vol.19. Pt.8. P.1074–1099. doi:10.13156/arac.2024.19.8.1074
Nunn S.C., West R.C., Wirth V. von. 2016. A revision of the selenocosmiine tarantula genus *Phlogiellus* Pocock 1897 (Araneae: Theraphosidae), with description of 4 new species // International Journal of Zoology. Vol.2016. No.1(9895234). P.1–54. doi:10.1155/2016/9895234
Pocock R.I. 1897. Spinnen (Araneae) // W. Kükenthal (Hrsg.) Ergebnisse einer zoologische Forschungsreise in dem Molukken und Borneo. Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft. Bd.23. S.591–629.
Raven R.J. 2005. A new tarantula species from northern Australia (Araneae, Theraphosidae) // Zootaxa. Vol.1004. No.1. P.15–28.
Schmidt G. 2003. Die Vogelspinnen: Eine weltweite Übersicht. Hohenwarsleben: Neue Brehm-Bücherei. 383 S.
Sherwood D., Fabiano-da-Silva W., Gabriel R., Lucas S.M. 2020. Redescription of *Nesipelma insulare* Schmidt & Kovařík, 1996 with a revised generic diagnosis for *Nesipelma* Schmidt & Kovařík, 1996 and a transfer from *Cyrtopholis* Simon, 1892 (Araneae: Theraphosidae) // Arachnology. Vol.18. Pt.5. P.462–467.
Shorthouse D.P. 2010. SimpleMappr, an online tool to produce publication-quality point maps. Available at: http://www.simplemappr.net (accessed on 1 September 2024).
Simon E. 1891. Etudes arachnologiques. 23e Mémoire. XXXVIII. Descriptions d'espèces et de genres nouveaux de la famille des Aviculariidae // Annales de la Société Entomologique de France. Vol.60. P.300–312.
Sivayyapram V., Kunsete C., Songsangchote C., Thanoosing C., Traiyasut P., Warrit N. 2020. Two new species of the Southeast Asian dwarf tarantula genus *Phlogiellus* Pocock, 1887 (Theraphosidae, Selenocosmiinae) and a discussion on the taxonomic problem of the genus // Zootaxa. Vol.4859. No.4. P.487–506.
Smith A.M. 1990. Baboon spiders: Tarantulas of Africa and the Middle East. London: Fitzgerald Publishing. 142 p.
West R.C., Nunn S.C. 2010. A taxonomic revision of the tarantula spider genus *Coremiocnemis* Simon 1892 (Araneae, Theraphosidae), with further notes on the Selenocosmiinae // Zootaxa. Vol.2443. No.1. P.1–64.

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