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Article

Faunistic and taxonomic data on oribatid mites (Acari, Oribatida) from Pinar del Río Province, Cuba

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ABSTRACT

The present study is based on oribatid mite material collected from forest leaf litter in the Pinar del Río Province, western Cuba. A list of 23 species, belonging to 19 genera and 13 families is presented; six species are recorded for the first time in Cuba. One new species belonging to the subgenus *Galumna* (*Neogalumna*)—*G. (N.) paraharrysmi* sp. nov.— is described. An identification key to the known species of *Galumna* (*Neogalumna*) is provided. The taxonomic status of the subgenus *Dimidiogalumna* (*Apodimidiogalumna*) is discussed, resulting in the following taxonomic proposal: *Galumna* (*Neogalumna*) Hammer, 1973 (= *Dimidiogalumna* (*Apodimidiogalumna*) Subías, 2022 syn. nov.).

KEYWORDS: fauna, galumnid mites, identification key, morphology, new record, new species, taxonomy.

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INTRODUCTION

This work is part of the ongoing faunistic and taxonomic studies of oribatid mites (Acari, Oribatida) of Cuba (e.g., Ermilov 2023a, b, c, 2024), and is based on materials from the Pinar del Río Province. The main goals of the paper are: to present a list of all identified taxa, to describe one new species belonging to *Galumna* (*Neogalumna*) Hammer, 1973 (family Galumnidae), and to update the identification key to the known species of *Galumna* (*Neogalumna*), following Ermilov and Khaustov (2021). Another goal of the paper is to discuss taxonomic status of *Dimidiogalumna* (*Apodimidiogalumna*).

The subgenus *Galumna* (*Neogalumna*) was established by Hammer (1973), with *Neogalumna antenniger* Hammer, 1973 as type species. The subgeneric diagnosis has been revised by Ermilov and Klimov (2017). The subgenus comprises 15 species, which are distributed in the Afrotropical, Neotropical and Oriental regions, Samoa and China (Ermilov and Khaustov 2021; Ermilov and Corpuz-Raros 2022). Subías (2022a) included *Galumna* (*Neogalumna*) *sivashensis* Ermilov & Khaustov, 2021 in the subgenus *Dimidiogalumna* (*Apodimidiogalumna*) Subías, 2022.

Prior this study, only one species of this subgenus, *G. (N.) araujoi* Pérez-Íñigo & Baggio, 1994, has been reported from Cuba (Ermilov and Tolstikov 2024).

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METHODS

Observation and documentation

For measurement and illustration, specimens were mounted in lactic acid on temporary cavity slides. All measurements are in micrometers (μm); body length was measured in lateral view, from the tip of the rostrum to the posterior edge of the notogaster; notogastral width refers to the maximum width in dorsal aspect (behind pteromorphs); setal lengths were measured in lateral aspect. Formulas for leg setation are given in parentheses according to the sequence trochanter-femur-genu-tibia-tarsus (famulus included); formulas for leg solenidia are given in square brackets, according to the sequence genu-tibia-tarsus. Drawings were made with a camera lucida using a Leica DM 2500 transmission light microscope.

Terminology

Morphological terminology used in this paper mostly follows that of Grandjean (1956, 1957), Norton and Ermilov (2017), Ermilov and Klimov (2017) for overview.

Abbreviations

The following morphological abbreviations are used: **Prodorsum:** *L* = lamellar line; *S* = sublamellar line; *N* = prodorsal leg niche; *E*, *T* = lateral ridges of body; *ro*, *le*, *in*, *bs* = rostral, lamellar, interlamellar, and bothridial setae, respectively; *Ad* = dorsosejugal porose area; *D* = dorsophragma; *P* = pleurophragma. **Notogaster:** *Aa*, *A1*, *A2*, *A3* = porose areas; *c*, *la*, *lm*, *lp*, *h*, *p* = setal alveoli; *ia*, *im*, *ip*, *ih*, *ips* = lyrifissures; *gla* = opisthonotal gland opening. **Gnathosoma:** *a*, *m*, *h* = subcapitular setae; *or* = adoral seta; *sup*, *inf*, *d*, *l*, *cm*, *acm*, *ul*, *su*, *vt*, *lt* = palp setae; ω = palp solenidion; *as* = axillary sacculus; *cha*, *chb* = cheliceral setae; *Tg* = Trägårdh's organ. **Epimeral and lateral podosomal regions:** *1a*, *3b*, *4a*, *4b*, *4c* = epimeral setae; *PdI*, *PdII* = pedotecta I, II, respectively; *dis* = discidium; *cir* = circumpedal carina. **Anogenital region:** *g*, *ag*, *an*, *ad* = genital, aggenital, anal, and adanal setae, respectively; *iad* = adanal lyrifissure; *po* = preanal organ. **Legs:** *Tr*, *Fe*, *Ge*, *Ti*, *Ta* = trochanter, femur, genu, tibia, and tarsus, respectively; ω , ϕ , σ = solenidia; ε = famulus; *d*, *l*, *v*, *bv*, *ev*, *ft*, *tc*, *it*, *p*, *u*, *a*, *s*, *pv*, *pl* = setae; *pa* = porose area.

Notes

Authorities of the original descriptions of taxa included in the *List of taxa* section are not given in the *References* section.

LIST OF TAXA

Locality: Cuba, Pinar del Río Province, Guaniguanico, 22°43' N, 83°28' W, forest leaf litter (date and collector unknown). Distribution mostly from Subías (2022b, online version 2024).

Trhypochthoniidae

Allonothrus tuxtlasensis Palacios-Vargas & Iglesias, 1997: 1 ex. Distribution: Neotropical region.
Archeogozetes magnus (Sellnick, 1925): 1 ex. Distribution: Tropical and Subtropical regions.

Neoliodidae

Teleioliodes zikani (Sellnick, 1930): 18 ex. Distribution: Neotropical region.

Oppiidae

Aeroppia maldivesensis Ermilov & Joharchi, 2022: 14 ex. Distribution: Maldives, Neotropical region.

Arcoppia porifera (Franklin & Woas, 1992): 5 ex. Distribution: Brazil. New record from Cuba.
Multioppia (Hammeroppia) insularis Mahunka, 1985: 8 ex. Distribution: Neotropical region.
Pseudoamerioppia barrancensis (Hammer, 1961): 10 ex. Distribution: Neotropical and Afrotropical regions, Philippines, Canary Islands.

Suctobelbidae

Suctobelbella (Flagrosuctobelba) penicillata (Balogh & Mahunka, 1966): 12 ex. Distribution: Afrotropical and Neotropical regions. New record from Cuba.

Carabodidae

Carabodes (Klapperiches) venezolanus Subías & Arillo, 2004: 1 ex. Distribution: Venezuela. New record from Cuba.

Phenopelopidae

Eupelops fusiformis Ermilov, 2016: 1 ex. Distribution: Neotropical region.

Microzetidae

Berlesezetes ornatissimus (Berlese, 1913): 1 ex. Distribution: Tropical and Subtropical regions.

Punctoribatidae

Lamellobates botari Balogh & Mahunka, 1977: 15 ex. Distribution: Neotropical region.

Mochlozetidae

Unguizetes incertus (Balogh & Mahunka, 1969): 10 ex. Distribution: Neotropical region.

Scheloribatidae

Muliercula curvilineata Ermilov & Kontschán, 2023: 1 ex. Distribution: Cuba.
Scheloribates milleri Jacot, 1936: 63 ex. Distribution: eastern U.S.A., northern Neotropical region. New record from Cuba.

Oripodidae

Benoibates juglans (Jacot, 1938): 1 ex. Distribution: northern Neotropical region.

Haplozetidae

Protoribates paracapucinus (Mahunka, 1988): 1 ex. Distribution: Tropical and Subtropical regions.

Galumnidae

Galumna colombiana Ermilov, 2017: 16 ex. Distribution: Neotropical region. New record from Cuba.
Galumna flabellifera Hammer, 1958: 13 ex. Distribution: Tropical and Subtropical.
Galumna (Neogalumna) paraharrysmi **sp. nov.**: 5 ex. Distribution: Cuba.

Pergalumna bifissurata Hammer, 1972: 9 ex. Distribution: Neotropical region, Tahiti.

Pergalumna cf. *brasiliensis* (Sellnick, 1923): 18 ex. Distribution: Neotropical region.

Pergalumna finnamorei Ermilov, 2019: 5 ex. Distribution: Neotropical region. New record from Cuba.

The list includes 23 species belonging to 19 genera and 13 families. Of these, two species are known only from Cuba, 12 species are Neotropical, and nine species have broad distributions (more than one geographical region). Six species (*Arcoppia porifera*, *Suctobelbella* (*Flagrosuctobelba*) *penicillata*, *Carabodes* (*Klapperiches*) *venezolanus*, *Scheloribates milleri*, *Galumna colombiana*, *Pergalumna finnamorei*) are recorded for the first time in Cuba.

TAXONOMY

Family Galumnidae

Galumna Heyden, 1826

Subgenus *Galumna* (*Neogalumna*) Hammer, 1973

Type species: *Neogalumna antenniger* Hammer, 1973

Galumna (*Neogalumna*) *paraharrysmi* sp. nov. (Figs. 1–11)

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Type material

Holotype (male) and four paratypes (two males and two females): Cuba, Pinar del Río Province, Guaniguanico, 22°43' N, 83°28' W, forest leaf litter (date and collector unknown).

Type deposition

The holotype is deposited in the collection of the Senckenberg Museum of Natural History, Görlitz, Germany; four paratypes are in the collection of the University of Tyumen, Museum of Zoology, Tyumen, Russia. All specimens are preserved in 70% solution of ethanol with a drop of glycerol.

Diagnosis

Body length: 570–615. Body surface densely microgranulate. Rostrum rounded. Lamellar and sublamellar lines divergent mediodistally; lamellar line directed to insertion of rostral seta. Rostral seta medium-sized, setiform, slightly barbed; lamellar seta short, setiform, roughened; interlamellar seta minute, needleform; bothridial seta long, lanceolate, barbed. Dorsosejugal porose area elongate oval. Dorsosejugal suture complete. Four pairs of notogastral porose areas: *Aa* boomerang-like; *A1* and *A2* oval; *A3* oval or elongate oval. Median pore present in both genders. Epimeral and anogenital setae minute, needleform. Circumpedal carina medium-sized. Postanal porose area long, band-like. Leg solenidion on tibia IV inserted in anterior part of the segment.

Description

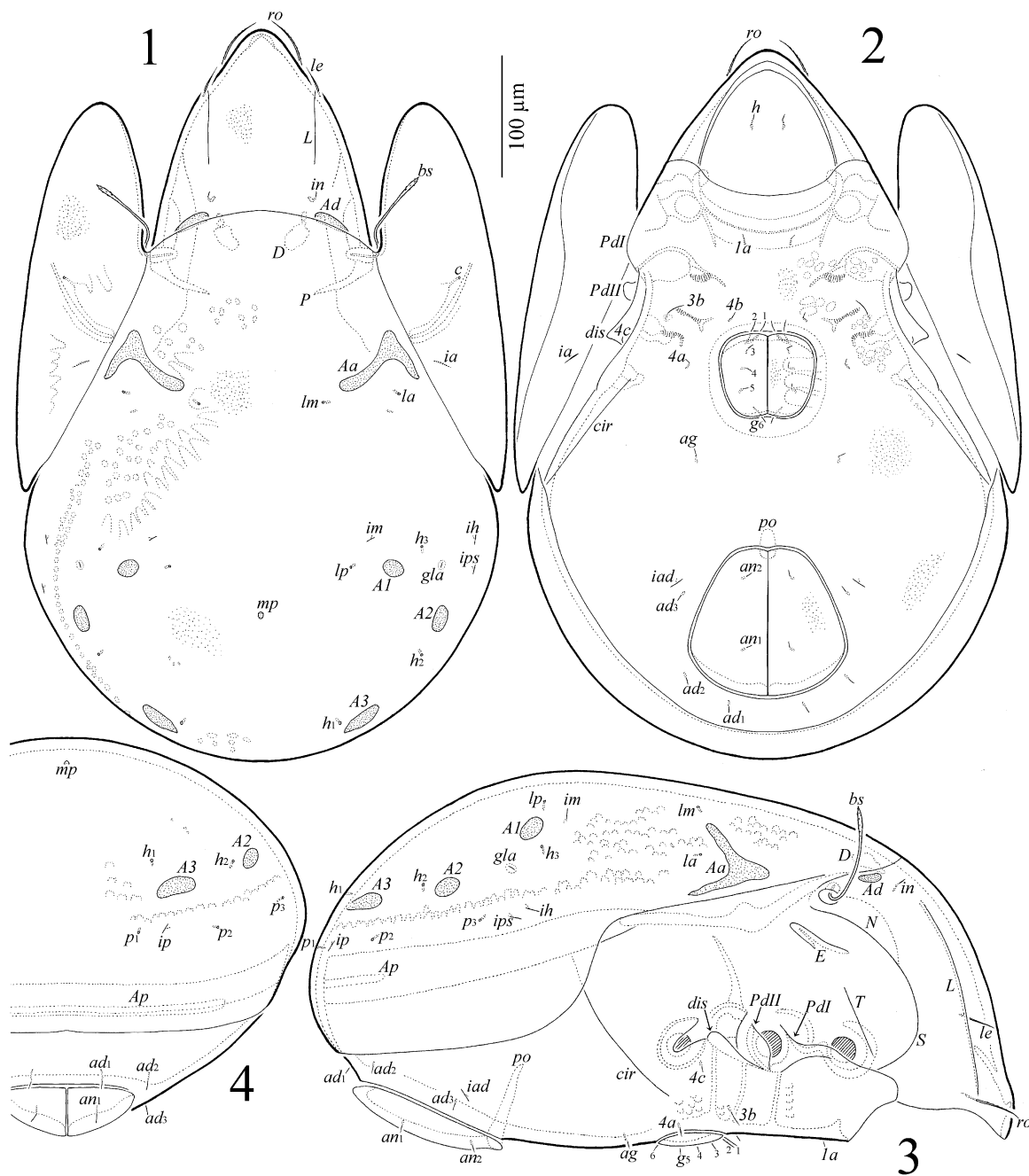
Measurements – Body length: 600 (holotype), 570, 600 (male paratypes), 615, 615 (female paratypes); notogaster width: 413 (holotype), 405, 420 (male paratypes), 427, 435 (female paratypes).

Integument – Body color yellowish brown. Body surface densely microgranulate.

Prodorsum – Rostrum rounded, sometimes narrowed. Lamellar and sublamellar lines divergent mediodistally; lamellar line slightly thickened, straight, directed to insertion of rostral seta; sublamellar line thin, curving backwards at ventral end. Rostral seta (49–54) setiform, slightly barbed; lamellar seta (19–26) setiform, roughened, thinner than rostral seta; interlamellar seta (7) needleform; bothridial seta (90–101) with long stalk and short, lanceolate, barbed head. Dorsosejugal porose area

elongate oval ($34\text{--}37 \times 7\text{--}11$), located posterolaterally to insertion of interlamellar seta. Dorsophragma elongated.

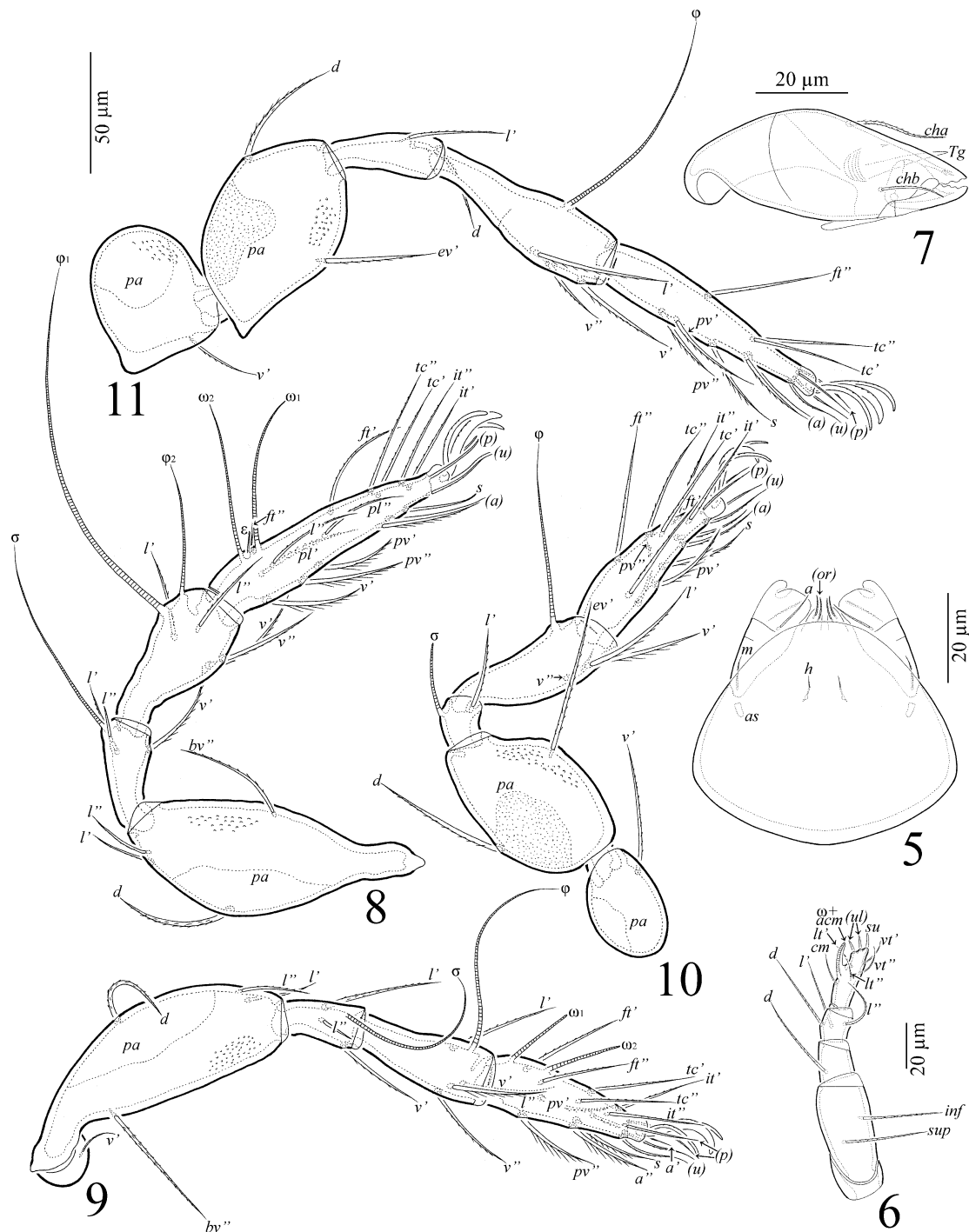
Notogaster – Dorsosejugal suture complete, slightly convex medially. Ten pairs of notogastral setae represented by setal alveoli. Four pairs of porose areas observable; *Aa* boomerang-like (length of medial transverse part: $67\text{--}82$; length of lateral longitudinal part: $56\text{--}71$; width: $7\text{--}19$); *A1* ($22\text{--}30 \times 15\text{--}19$) and *A2* ($22\text{--}37 \times 19\text{--}22$) oval; *A3* oval or elongate oval ($34\text{--}60 \times 15\text{--}22$); *Aa* located near to pteromorph hinge and anterior to setal alveolus. Median pore present in both genders, represented by one large fovea located posterior to the virtual line connected porose areas *A1*. Opisthonotal gland opening and all lyrifissures distinct: *gla* located laterally to *A1*; *im* anteriorly to *A1*; *ip* between *p*₁ and *p*₂; *ih* and *ips* usually close to each other, anteriorly to *p*₃.



Figures 1–4. *Galumna* (*Neogalumna*) *paraharrysmi* sp. nov. (adult) – 1. Dorsal view; 2. Ventral view (legs not shown); 3. Right lateral view (gnathosoma, legs and right pteromorph not shown); 4. Posterior view (part of left half not shown).

Gnathosoma – Size of subcapitulum: 146–150 × 116–131; subcapitular setae *a* (26–30) and *m* (19–22) setiform, slightly barbed; *h* (7) needleform; both adoral setae (13–15) setiform, barbed. Length of palp: 116–120; setation: 0-2-1-3-9(+ ω); postpalpal seta (7) spiniform, smooth. Length of chelicera: 161–165; setae (*cha*: 52–56; *chb*: 34–37) setiform, barbed.

Epimeral and lateral podosomal regions – Epimeral setal formula: 1-0-1-3; all setae (*3b*: 15; *1a*, *4a*, *4b*, *4c*: 7) needleform. Circumpedial carina medium-sized, directed to insertion of seta *3b*, but distinctly not reaching it.



Figures 5–11. *Galumma* (*Neogalumna*) *paraharrysmi* sp. nov., dissected adult – 5. Subcapitulum, ventral view; 6. Palp, right, antiaxial view; 7. Chelicera, right, antiaxial view; 8. Leg I (trochanter not shown), right, antiaxial view; 9. Leg II, right, antiaxial view; 10. Leg III, left, antiaxial view; 11. Leg IV, left, antiaxial view.

Anogenital region – Anogenital formula: 6-1-2-3; genital (g_1 : 15; others: 7), aggenital (7), anal (7), and adanal (7) setae needleform; anterior edge of genital plate with two setae; aggenital seta located posterolaterally to genital aperture; adanal setae ad_1 and ad_2 posteriorly, ad_3 laterally to anal plate; distance ad_1 – ad_2 shorter than ad_2 – ad_3 . Adanal lyrifissure oblique, located close and anterolaterally or laterally to adanal seta ad_3 . Postanal porose area long (266–281 × 11–15), band-like. Ovipositor is typical for Galumnidae (see Ermilov 2010); length of blade: 116; length/width of distal section (beyond middle fold): 146/75; each of the three blades with four smooth setae: $\psi_1 \approx \tau_1$ (41) rod-like; $\psi_2 \approx \tau_a \approx \tau_b \approx \tau_c$ (26) thinly thorn-like; six coronal setae (5) spiniform.

Legs – Median claw distinctly thicker than lateral claws; all claws slightly barbed on dorsal side. Porose area on femora I–IV and on trochanters III, IV poorly visible; proximoventral porose area on tarsi and distoventral porose area on tibiae not observable. Formulas of leg setation and solenidia: I (1-4-3-4-20) [1-2-2], II (1-4-3-4-15) [1-1-2], III (1-2-1-3-15) [1-1-0], IV (1-2-2-3-12) [0-1-0]; homology of setae and solenidia indicated in Table 1; famulus inserted between seta ft'' and solenidion ω_2 ; seta s on tarsus I eupathidial, inserted between paired setae u and a ; solenidion on tibia IV inserted in anterior part of the segment.

Table 1. Leg setation and solenidia of adult *Galumna (Neogalumna) paraharrysmi* sp. nov.

Leg	Tr	Fe	Ge	Ti	Ta
I	v'	$d, (l), bv''$	$(l), v', \sigma$	$(l), (v), \varphi_1, \varphi_2$	$(ft), (tc), (it), (p), (u), (a), s, (pv), v', (pl), l'', \varepsilon, \omega_1, \omega_2$
II	v'	$d, (l), bv''$	$(l), v', \sigma$	$(l), (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv), \omega_1, \omega_2$
III	v'	d, ev'	l', σ	$l', (v), \varphi$	$(ft), (tc), (it), (p), (u), (a), s, (pv)$
IV	v'	d, ev'	d, l'	$l', (v), \varphi$	$ft'', (tc), (p), (u), (a), s, (pv)$

Note: Roman letters refer to normal setae; Greek letters to solenidia (except ε = famulus); single quotation mark (') designates setae on the anterior and double quotation mark ('') setae on the posterior side of a given leg segment; parentheses refer to a pair of setae.

Remarks

Distinctive characters of the new species compared with other members of *Galumna (Neogalumna)* can be found in the identification key given below.

Etymology

The species name *paraharrysmi* refers to the similarity between the new species and *G. (N.) harrysmi* Ermilov, 2016.

DISCUSSION

Ermilov and Khaustov (2021) described *Galumna (Neogalumna) sivashensis*. They noted that the absence of the sublamellar line in this species matches the character of the genus *Dimidiogalumna* Engelbrecht, 1972. Subsequently, Subías (2022a) included this species in his newly erected subgenus *Dimidiogalumna (Apodimidiogalumna)*. However, Ermilov and Khaustov (2021) also explained that the inclusion of *G. (N.) sivashensis* in *Dimidiogalumna* is impossible: firstly, all representatives of *Dimidiogalumna* have a complex morphological traits, which are absent in *G. (N.) sivashensis* (e.g., bothridial seta with distinctly developed head; adanal lyrifissure located close to anal aperture; interlamellar seta minute); secondly, some supraspecies taxa of Galumnidae include species either with or without sublamellar line (e.g., *Carinogalumna* Engelbrecht, 1973; *Cryptogalumna* Grandjean, 1957; *Galumnella* Berlese, 1916). Therefore, *G. (N.) sivashensis* is a typical representative of *Galumna (Neogalumna)*, and the subgeneric status of *Dimidiogalumna (Apodimidiogalumna)* cannot be supported. So, I propose the following synonymy: *Galumna (Neogalumna)* Hammer, 1973 (=

Dimidiogalumna (*Apodimidiogalumna*) Subías, 2022 **syn. nov.**).

Key to known species of the subgenus *Galumna* (*Neogalumna*)

(revised after Ermilov and Khaustov 2021)

1. Interlamellar seta medium-sized or long (distinctly longer than diameter of bothridium) 2
 - Interlamellar seta short (about length of diameter of bothridium or shorter) or represented by alveolus 7
2. Bothridial seta clavate or fusiform/lanceolate 3
 - Bothridial seta nearly setiform, without clearly developed distal head 4
3. Bothridial seta clavate (rounded distally); notogastral porose area *Aa* transversely elongate oval; interlamellar seta flagellate, longer than length of prodorsum; dorsosejugal suture absent; body length: 530 *G. (N.) lyrica* (Jacot, 1935). Distribution: southeastern U.S.A.
 - Bothridial seta lanceolate (pointed distally); notogastral porose area *Aa* boomerang-like; interlamellar seta setiform, shorter than length of prodorsum; dorsosejugal suture present; body length: 510 *G. (N.) curviporosa* (Balakrishnan, 1986). Distribution: southern India.
4. Lamellar line incomplete, comparatively short (distinctly not reaching insertion of rostral seta or acetabulum I, or lateral side of prodorsum) 5
 - Lamellar line complete, long (reaching of insertion of rostral seta or acetabulum I, or lateral side of prodorsum) 6
5. Postanal porose area oval, short; median pore absent; genital plate partially longitudinally striate; sublamellar line present; body length: 381–398
 - *G. (N.) seniczaki* (Ermilov & Anichkin, 2010). Distribution: southern Vietnam.
 - Postanal porose area band-like, long; median pore present; genital plate not striate; sublamellar line absent; body length: 448–564
 - *G. (N.) sivashensis* Ermilov & Khaustov, 2021. Distribution: northern Crimea.
6. Notogastral porose area *A3* and postanal porose area oval, short; lamellar line nearly straight, directed to insertion of rostral seta (distal ends of lamellar and sublamellar lines divergent); additional notogastral setal alveolus developed anteriorly to porose area *Aa*; body length: 431–448 *G. (N.) longilineata* Ermilov & Anichkin, 2014. Distribution: southern Vietnam.
 - Notogastral porose area *A3* and postanal porose area band-like, long; lamellar line curving backwards at ventral end (lamellar and sublamellar lines parallel); additional notogastral setal alveolus absent anteriorly to porose area *Aa*; body length: 700–780
 - *G. (N.) longiporosa* (Liang, Yang & Tang, 2014). Distribution: northeastern China.
7. Bothridial seta nearly setiform, without clearly developed distal head; lamellar line incomplete, comparatively short (distinctly not reaching insertion of rostral seta or acetabulum I, or lateral side of prodorsum) 8
 - Bothridial seta clavate or fusiform/lanceolate; lamellar line complete, long (reaching of insertion of rostral seta or acetabulum I, or lateral side of prodorsum) 11
8. Postanal porose area absent; median pore present; genital plate not striate; additional notogastral setal alveolus absent anteriorly to porose area *Aa*; body length: 459–497
 - *G. (N.) tongliaoensis* Pan & Liu, 2020. Distribution: northeastern China.
 - Postanal porose area present; median pore absent; genital plate with one or several longitudinally stria; additional notogastral setal alveolus present anteriorly to porose area *Aa* 9
9. Five pairs of notogastral porose areas, with two pairs of *Aa*; body length: 398
 - *G. (N.) eusebioi* Ermilov & Corpuz-Raros, 2022. Distribution: The Philippines.
 - Four pairs of notogastral porose areas, with one pair of *Aa* 10
10. Postanal porose area oval (distinctly shorter than anal plate width); rostral and lamellar setae similar in length; notogastral setal alveolus *la* present; body length: 381–415
 - *G. (N.) tolstikovi* Ermilov & Anichkin, 2014. Distribution: Oriental region.

- Postanal porose area elongate oval (as anal plate width); rostral seta distinctly longer than lamellar seta; notogastral setal alveolus *la* absent; body length: 498–531
G. (N.) specifica Ermilov, Sandmann, Klarner, Widyastuti & Scheu, 2015. Distribution: Sumatra.
- 11. Rostrum pointed; notogastral porose area *Aa* nearly triangular, transversely elongate 12
- Rostrum rounded; notogastral porose area *Aa* rounded, oval or boomerang-like 13
- 12. Postanal porose area present; lamellar line directed to lateral side of prodorsum; interlamellar seta minute; body length: 581–597
.....*G. (N.) moroi* Ermilov, Subias, Shtanchaeva & Friedrich, 2021. Distribution: central Peru.
- Postanal porose area absent; lamellar line directed to insertion of rostral seta; interlamellar seta represented by alveolus; body length: 614–641
.....*G. (N.) araujoi* Perez-Íñigo & Baggio, 1994. Distribution: Neotropical region.
- 13. Notogastral porose area *Aa* boomerang-like, median pore represented by one foveola 14
- Notogastral porose area *Aa* rounded or oval; median pore absent or represented by several foveolae 15
- 14. Postanal porose area complete, unusual long; lamellar line directed to lateral side of prodorsum; notogastral porose area *A2* elongate oval, medium-sized, *A3* band-like, long; body length: 564–664
.....*G. (N.) harrysmiti* Ermilov, 2016. Distribution: Lesser Antilles.
- Postanal porose area incomplete, long; lamellar line directed to insertion of rostral seta; notogastral porose area *A2* oval, short, *A3* elongate oval, medium-sized; body length: 570–615
.....*G. (N.) paraharrysmiti* **sp. nov.** Distribution: Cuba.
- 15. Head of bothridial seta barbed, about 1/2 of stalk length; notogastral porose area *AI* located anteriorly to *A2*; genital and anal plates foveolate; median pore represented by several foveae; notogastral lyrifissure *im* located medially to *AI*; body length: 288–314
.....*G. (N.) aethiopica* (Mahunka & Mahunka-Papp, 2009). Distribution: Kenya.
- Head of bothridial seta smooth, about 1/3 of stalk length; notogastral porose area *AI* located anteromedially to *A2*; genital and anal plates not foveolate; median pore absent; notogastral lyrifissure *im* located laterally to *AI*; body length: 370
.....*G. (N.) antenniger* (Hammer, 1973). Distribution: Samoa.

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داده‌های زیگانی و آرایه‌شناختی کنه‌های اوربیتاید (*Acari, Oribatida*) از استان پینار دل ریو، کوبا

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چکیده

بررسی حاضر بر اساس نمونه‌های هرناهای اوربیتاید جمع‌آوری شده از بستر برگ جنگل در استان پینار دل ریو، غرب کوبا انجام شده است. فهرستی از ۲۳ گونه، متعلق به ۱۹ جنس و ۱۳ خانواده ارائه شده است. شش گونه برای نخستین بار در کوبا ثبت شد. گونه‌ای جدید متعلق به زیرجنس *G. (N.) paraharrysmi sp. nov. - Galumna (Neogalumna)* توصیف می‌شود. یک کلید شناسایی برای گونه‌های شناخته شده *Galumna (Neogalumna)* ارائه شده است. وضعیت آرایه‌شناسی زیرجنس *Dimidiogalumna (Apodimidiogalumna)* مورد بحث قرار گرفته و در نتیجه پیشنهاد آرایه‌شناختی زیرارایه می‌شود: *Galumna (Neogalumna) Hammer, 1973 (= Dimidiogalumna (Apodimidiogalumna) Subías, 2022 syn. nov.*

واژگان کلیدی: زیگان، هرناهای گالومنید، کلید شناسایی، ریخت‌شناسی، گزارش جدید، گونه‌های جدید، آرایه‌شناسی.

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