

A new genus and species of the subfamily Diplurinae (Araneae, Dipluridae)

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Summary

A new genus and species of the subfamily Diplurinae is described, *Metriura striatipes* gen. et sp. nov. The genus differs from other diplurine genera by the presence of erect setae in front of the fovea, a large labiosternal suture and the strongly curved base of metatarsus I in males.

Introduction

During examination of supposed *Linothele* Karsch, 1879 material at the Staatliches Museum für Naturkunde Karlsruhe (SMNK) for the revision of this genus, the authors found a new genus and species, which is described here. According to Raven (1985) the subfamily Diplurinae can be distinguished from other diplurid subfamilies by the presence of two rows of teeth on the paired tarsal claws. Raven mentions only three valid genera of diplurine spiders: *Diplura* C. L. Koch, 1850, *Linothele* Karsch, 1879 and *Trechona* C. L. Koch, 1850. Later, Maréchal & Marty (1998) removed *Harmonicon* F. O. P.-Cambridge, 1896 from the synonymy of *Diplura*. *Metriura* gen. nov. thus becomes the fifth genus in the subfamily Diplurinae. The genus described here seems to be related to *Linothele*, but some features, such as the erect setae immediately in front of the fovea, are more likely to occur in other subfamilies of Dipluridae, e.g. the Euagrinae or Ischnothelinae (see Coyle, 1988, 1995).

Material and methods

Material was examined using a stereo zoom microscope (Leica MZ9.5). Digital images were taken using a Leica Z6 and JVC CCD camera. Illustrations were obtained as vectorised graphics from digital images using graphic software. All appendage and body measurements were made using a digital calliper (± 0.1 mm). Bulbi were recorded in prolateral and retrolateral views. All measurements are given in mm. Leg lengths are considered to be the sum of all articles from femur (basal) to tarsus (apical). The width of the prosoma was measured at the level of the fovea, and its length from the pedicel to the base of the chelicerae. The lengths of non-sclerotised body-parts such as the opisthosoma are considered to be approximate measurements only. The counts of spines on the legs and pedipalps are given as follows: Leg: article, position,

number (). If any data are given in brackets, they reflect groups from basal to distal; groups are divided by hyphens. Abbreviations: AME=anterior median eyes, ALE=anterior lateral eyes, PME=posterior median eyes, PLE=posterior lateral eyes, Ta=tarsus, Mt=metatarsus, Ti=tibia, Pa=patella, Fe=femur, Tr=trochanter, Co=coxa, Ma=maxillae, PMS=posterior median spinnerets, PLS=posterior lateral spinnerets, l=lateral, pl=prolateral, rl=retrolateral, v=ventral, d=dorsal, juv=juvenile, STC=superior tarsal claw.

According to the Brazilian regulations for loaned material, with the approval of the curator of the arachnid collection of the SMNK, Dr Hubert Höfer, the holotype and the juvenile male paratype will be deposited at INPA. Abbreviations of institutes and museums: SMNK=Staatliches Museum für Naturkunde Karlsruhe, ZMB=Museum für Naturkunde Berlin, INPA=Instituto Nacional de Pesquisas do Amazônia.

Examined (type-) material: *Linothele curvitaris* Karsch, 1879, holotype juv. ♂, ZMB Arach-458 and Arach-458a (tarsal claw preparation), Caracas, Venezuela.

Metriura gen. nov.

Etymology: The genus name is derived from the Greek words “metrios” (medium) and “oura” (tail), and describes the moderately long posterior lateral spinnerets in comparison with other genera of the subfamily Diplurinae. Gender feminine.

Remarks: Comparison of *Metriura* gen. nov. with the type species of *Linothele*, *L. curvitaris*, showed that *Metriura* seems to be related to *Linothele*, but differs in distinct features. Examination of the holotype of *L. curvitaris* revealed that it was a juvenile male, not a female as stated by Karsch (1879).

Diagnosis: *Metriura* gen. nov. is placed in the subfamily Diplurinae because of the presence of two rows of teeth on STC. Furthermore, the subfamily can be distinguished from the Ischnothelinae by the presence of one row of ventral teeth on the chelicerae (vs. two rows in Ischnothelinae). *Metriura* gen. n. can be distinguished from *Diplura*, *Trechona* and *Harmonicon* by the absence of a prolateral lyra on the maxillae and from *Linothele* by the broader and longer labiosternal suture, the presence of two erect foveal setae immediately in front of the fovea, and the strongly curved base of Mt I and a longer cymbium in males.

Metriura striatipes sp. nov. (Figs. 1–6)

Type material: Holotype ♂ (INPA 3507), from Manaus, Tarumã Mirin, Amazonas, Brazil, 03°06'00"S, 60°01'48"W (J. Adis, 1 February 1982). Paratypes: Same data, 1 juv. ♂ (INPA 3508), 1♂ (SMNK-ARA 334).

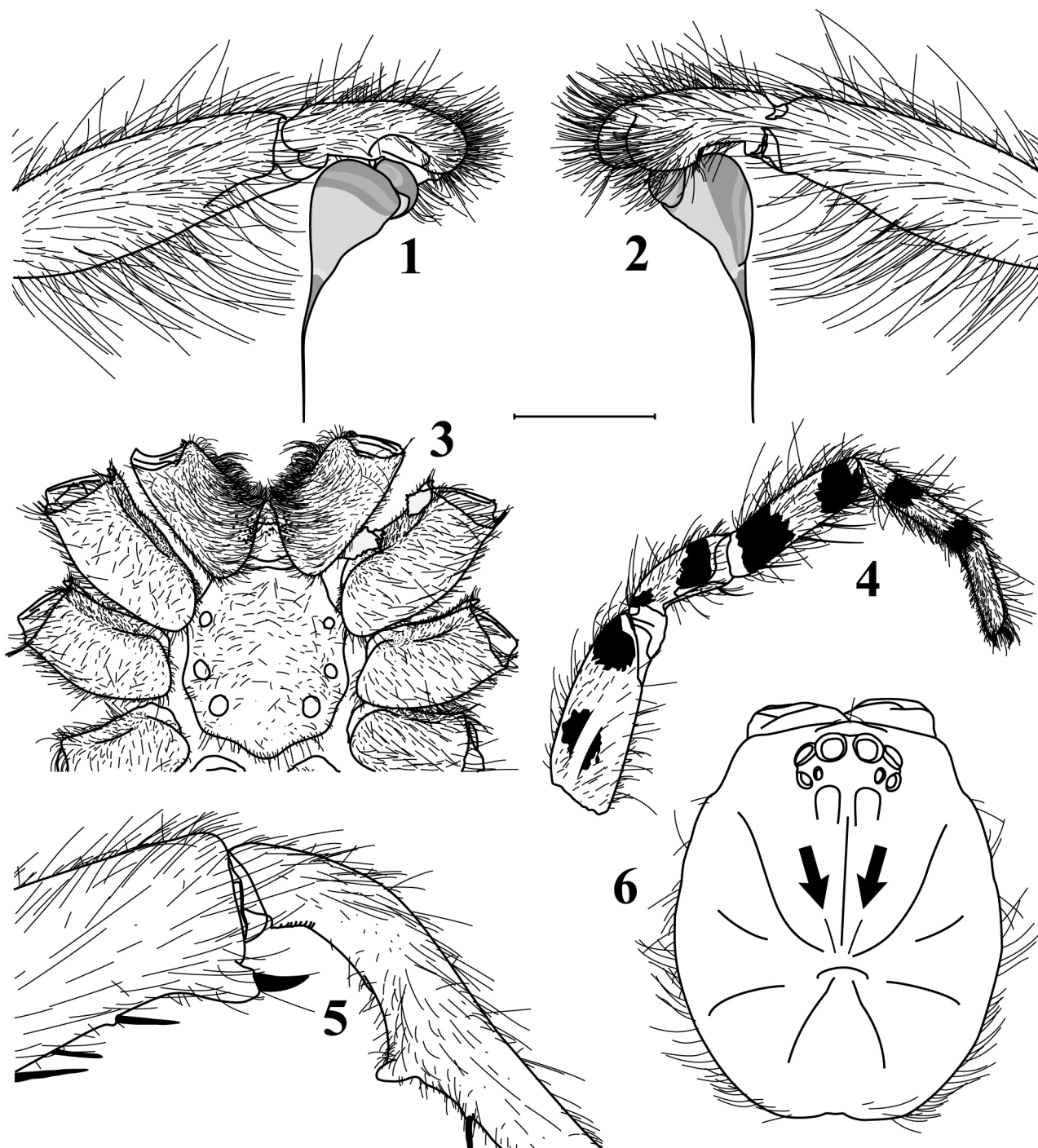
Etymology: The specific epithet refers to the striped pattern on the leg segments.

Diagnosis: As for genus.

Description: Holotype ♂: Colour in alcohol: prosoma and legs red-brown, opisthosoma dark brown. Total

length 12.34. Carapace (Fig. 6): length 5.99, width 4.95; covered with some silver setae, and margined by stiff black setae; striae marked; fovea recurved, not deep, with one pair of erect bristles in front of it. Clypeus present, but narrow. Eight eyes in two rows on slightly raised tubercle: anterior row slightly recurved, posterior row recurved; AME largest, PME smallest; ALE and PLE oval. All eyes separated by diameter of PME. Labium trapezoidal, longer than wide, with four cusps. Labiosternal suture broad, long and divided.

Maxillae ventrally with approximately 37 cuspules, basally on prolateral corner. Sternum (Fig. 3): length 2.67, width 2.52, with three pairs of sigilla: first pair at level of Co I (smallest), second at Co II and third between Co III and IV (almost equal in size); all rounded and submarginal. Ventral teeth on chelicerae in one row on prolateral margin (1-1-1-1-3-1-2). Leg and palp segment lengths in Table 1. Pedipalps without spines, cymbium bilobate at apex, scopulate and slightly elongated. Palpal bulb pyriform, embolus curved, long



Figs. 1–6: *Metriura striatipes* gen. et sp. n. 1–3 and 5–6 Holotype mature male; 4 Paratype juvenile male. 1 Right palp, retrolateral view; 2 Right palp, prolateral view; 3 Cephalothorax, ventral view (internal substance between left maxilla and coxa I); 4 Right leg I, retrolateral view; 5 Right tibia and metatarsus I, retrolateral view; 6 Carapace, dorsal view (arrows point to erect setae in front of fovea). Scale line=1.00 mm (1, 2), 2.20 mm (3), 2.30 mm (4), 0.96 mm (5), 2.00 mm (6).

	Fe	Pa	Ti	Mt	Ta	Total
I	4.71	2.62	3.41	3.93	2.25	16.92
II	4.64	2.31	2.49	3.31	1.68	14.43
III	3.89	2.16	2.57	3.32	2.58	14.52
IV	5.58	2.50	3.71	4.20	2.38	18.37
Palp	4.01	1.52	1.88	—	1.20	8.61

Table 1: Measurements of legs and pedipalp of *Metriura striatipes* male holotype (INPA 3507).

and slender (Figs. 1, 2). Legs with indistinct pattern consisting of 1–2 dark stripes on all segments except tarsi, trochanters and coxae. Tarsi of legs scopulate: scopula on Ta I dense and interspersed with black setae, scopula of Ta II–IV without setae. Ti I with megaspine on retroventral apex. Mt I strongly curved at base, with retroventral tubercle at basal third (Fig. 5). Spination: I: Mt v2 (at apex); Ti v9 (2-1-2-3-1), pl2; Pa v1, pl2, r12; Fe pl1, d4; II: Mt v15 (3-3-2-2-1-1-1-2), pl1; Ti v9 (2-1-2-1-1-2), pl2; Pa pl2; Fe d3; III: Mt v9 (2-1-3-1-2), pl2, r11, d3; Ti v7 (2-2-1-2), pl3, d1; Fe d2; IV: Mt v2, pl2, r12; Ti v6 (1-1-2-2), r11; Fe d2. Tarsi spineless. STC with two rows of teeth. Leg formula 4132. Opisthosoma (length 6.35) without pattern. Four spinnerets present: PMS (length 0.87) small, widely separated and consisting of one segment; PLS (length 3.24) elongated, consisting of three segments: basal segment length 1.04, medial segment length 0.90 (smallest), apical segment length 1.30 (longest).

Paratype juv. ♂: Differs from holotype by the following characters: Colour in alcohol: legs yellow-brown, with more distinct pattern. Total length 11.63. Carapace length 4.59, width 3.89. Labium with three cuspules. Sternum length 2.16, width 2.23. Ventral teeth on chelicerae in one row on prolateral margin (1-1-1-1-3-1). Leg and palp segment lengths in Table 2. Pedipalp scopula interspersed with stiff setae on tarsi; spination: Ta v1, pl1; Ti v4 (1-1-2), pl4. Legs with distinct pattern consisting of 1–2 stripes (Fig. 4) on all segments except tarsi. Scopula on Ta I and II dense, divided by two parallel lines of black setae, Mt I and II scopulate from apex to apical third, scopula divided by two parallel lines of setae. Scopula less dense on Ta III, divided by two parallel lines of setae. No scopula on Ta IV. Spination: I: Mt v6 (2-2-2), pl1; Ti v4 (1-1-2); Fe d8; II: Mt v5 (1-2-2), pl1; Fe d6; III: Mt v6 (2-2-2), pl1, d6 (2-2-2); Ti v5 (1-2-2); Fe d1; IV: Mt v6 (1-2-3), pl1, d1; Ti v6

	Fe	Pa	Ti	Mt	Ta	Total
I	3.63	1.55	2.52	2.47	1.95	12.12
II	3.17	1.66	2.16	2.05	1.98	11.02
III	3.05	1.10	1.69	1.88	1.33	9.05
IV	4.13	2.00	2.51	2.17	1.80	12.61
Palp	2.79	0.95	1.49	—	1.68	6.91

Table 2: Measurements of legs and pedipalp of *Metriura striatipes* juvenile male paratype (INPA 3508).

(2-2-2), r12; Fe d4. Leg formula 4123. Opisthosoma length 7.04. PMS length 0.59, PLS length 3.65: basal segment length 0.89, medial segment length 0.90, apical segment length 1.86.

Ecology: Although this species was collected in an arboreal position in an igapó (rainforest that is flooded during the wet season), it is questionable if it is arboreal. Since the spiders were collected during the wet season it is more likely that they climb up the trees in order to escape the rising water level, rather than being truly arboreal.

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