

A new genus and species of Harpactirinae from coastal Angola (Araneae, Theraphosidae)

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Summary

A distinctive new monotypic African theraphosid spider genus is described from coastal Angola and diagnosed from the other Harpactirinae genera. The type species of the new genus represents a new species.

Introduction

The African theraphosid spider subfamily Harpactirinae is represented by nine genera distributed throughout sub-Saharan Africa, excluding West Africa.

Harpactira Ausserer, 1871 was the first harpactirine genus to be described, followed closely by *Pterinochilus* Pocock, 1897, *Ceratogyrus* Pocock, 1897, *Brachionopus* Pocock, 1897 and *Eucratoscelus* Pocock, 1898. *Harpactirella* Purcell, 1902 and *Idiothele* Hewitt, 1919 were added a few years later.

Strand (1920) proposed the genus *Pterinochilides* Strand, 1920, but this genus was later synonymised with *Pterinochilus* by Laurent (1946). Likewise *Coelogenium* Purcell, 1902 was relegated to a synonym of *Ceratogyrus* by Gallon (2001). Raven (1985) treated *Idiothele* as a junior synonym of *Pterinochilus*, but this interpretation was not followed by Gallon (2002). Gallon (2002) argued for the placement of *Brachionopus* within the Barychelidae, a position held by other workers (Schmidt, 1993, 2002; Charpentier, 1993). However, since then I have had the opportunity to examine a much larger sample of *Brachionopus* and *Harpactirella* species and now concur with Raven's (1985) placement of *Brachionopus* within the Harpactirinae.

The description of *Augacephalus* Gallon, 2002 and *Trichognathella* Gallon, 2004 (originally *Trichognatha* Gallon, 2002, a preoccupied genus name) completed the nine recognised Harpactirinae genera.

Whilst working through unidentified African theraphosids at the Natural History Museum, London, a tube containing two female Harpactirinae from Angola was discovered. These distinctive specimens could not be placed within any previously defined harpactirine genus, so a new monotypic genus is proposed here to accommodate the new species.

Methods

Methods follow Gallon (2002), except that ocular and somatic measurements were obtained microscopically using an eyepiece graticule (± 0.01 mm and ± 0.1 mm respectively). Spermathecae were only partially cleared in lactic acid owing to their fragility.

Abbreviations: Eyes: AME=anterior median, ALE=anterior lateral, PME=posterior median, PLE=posterior lateral. Leg spines: DPV=distal proventral; DRV=distal retroventral; MPV=medial proventral;

MPD=medial prodorsal; MRD=medial retrodorsal; MPL=medial prolateral; DMV=distal midventral; DPD=distal prodorsal; DRD=distal retrodorsal. R=right, L=left. Spinnerets: DS=distal segment. Collections: BMNH=Natural History Museum, London, United Kingdom; ZMB=Museum für Naturkunde der Humboldt-Universität, Berlin, Germany.

Bacillochilus gen. n.

Type species: Bacillochilus xenostridulans sp. n.

Etymology: Derived from the Latin *bacillum* (small stick) and the Greek *cheilos* (lip), referring to the enlarged rod-like plumose setae within the cheliceral scopula. Gender masculine.

Diagnosis: The presence of a retrolateral cheliceral scopula distinguishes *Bacillochilus* gen. n. from both *Brachionopus* and *Harpactirella*. *Bacillochilus* gen. n. is distinguished from all other Harpactirinae genera by the possession of several distinctly enlarged plumose setae within the proximal region of the retrolateral cheliceral scopula (Plates 4–5). The weakly developed plumose setae and more numerous enlarged spike setae on the prolateral surface of the palp trochanter (Plate 6) further distinguish *Bacillochilus* gen. n. from all other stridulating Harpactirinae genera except *Idiothele*.

Bacillochilus gen. n. differs further from *Harpactira* and *Trichognathella* by the absence of a prolateral cheliceral scopula. It also lacks the prolateral plumose stridulatory strikers on the maxilla and the discrete row of bristles below the retrolateral cheliceral scopula found in *Harpactira*. The transverse fovea further distinguishes *Bacillochilus* gen. n. from most *Ceratogyrus* species. The elongated distal segment of the posterior spinneret (Fig. 3) and more numerous cuspules on the maxilla and labium provide additional distinction from *Idiothele*. The DPD spine on metatarsus III–IV is present in *Bacillochilus* gen. n. and tibia IV is not incrassate, thereby providing additional distinction from *Eucratoscelus*.

In *Bacillochilus* gen. n. the plumose setal composition of the retrolateral cheliceral scopula shows a passing resemblance to that of the Asiatic Ornithoctoninae (Pocock, 1895a, b). However, *Bacillochilus* gen. n. lacks the prolateral maxillary spikes found in members of that subfamily, and the enlarged plumose setae within the retrolateral cheliceral scopula are inclined upwards, rather than downwards.

Bacillochilus xenostridulans sp. n. (Plates 1–6, Figs. 1–3)

Type material: Holotype ♀ (BMNH 1906.2.5.8–9) from Angola, Catumbella, Benguella [$12^{\circ}27'S$, $13^{\circ}31'E$], 17 August 1905. Paratype 1♀ with same data.

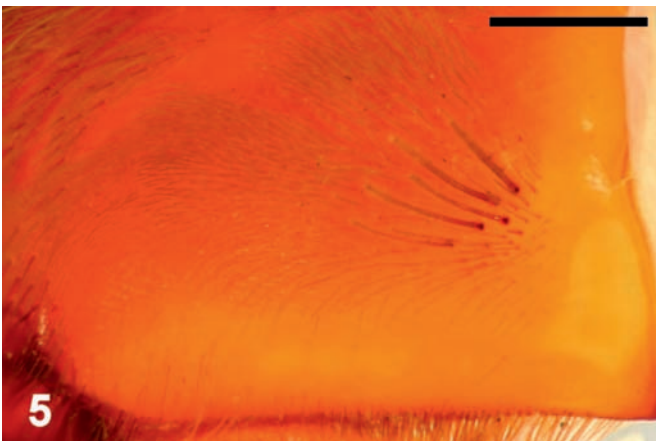
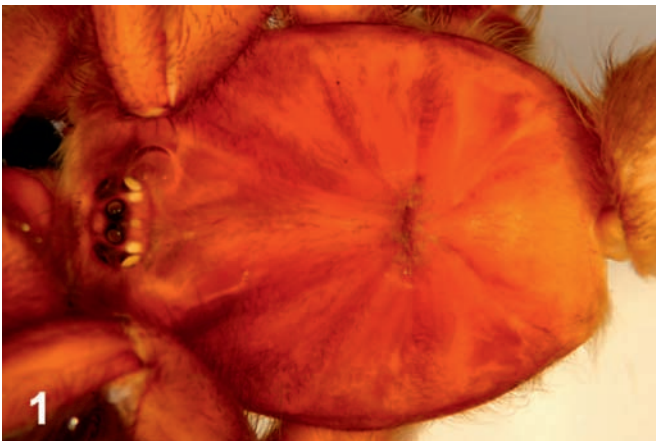
Etymology: Derived from the Greek *xeno* (strange) and Latin *stridere* (to creak), referring to the unusual and distinct stridulation organ of this taxon.

Diagnosis: Refer to the generic diagnosis, since the genus is currently monotypic.

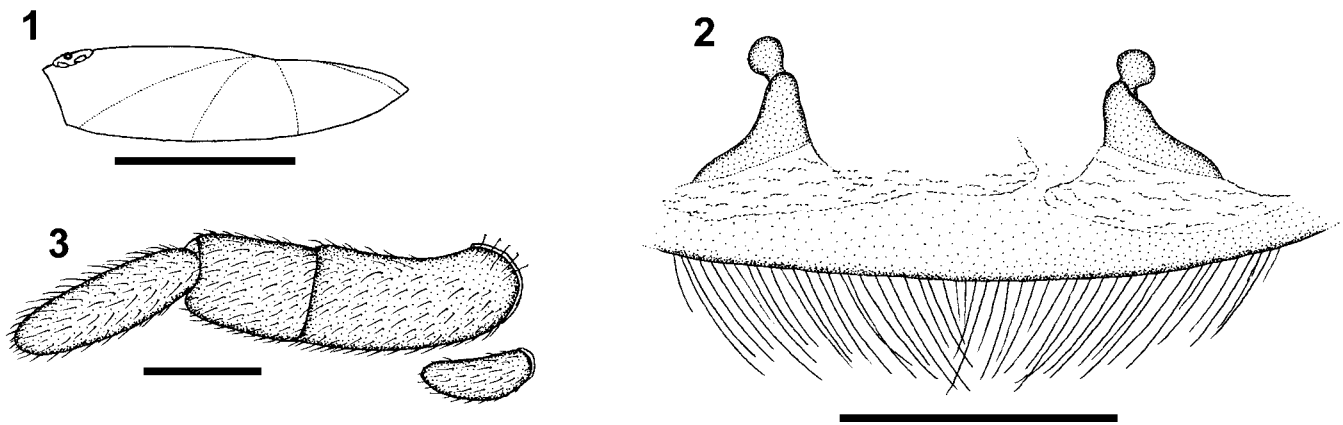
Description: *Holotype female* (BMNH 1906.2.5.8–9): Total length 24.5 (Plates 1–2). Carapace profile low,

slightly raised at caput (Fig. 1), length 10.0, width 7.7. Abdomen length 10.5, width 6.8. Fovea deep transverse pit. Ocular tubercle length 1.34, width 1.72 (Plate 3). Clypeus 0.23. Eye sizes: AME 0.40, ALE 0.50, PME 0.36, PLE 0.42. Sternum with three pairs of oval submarginal sigilla. Labium with *c.* 48 cuspules. Maxilla with *c.* 165 cuspules. DS of posterior spinneret digitiform. Chelicerae with 8R, 8L teeth on promargin. Stridulatory scopula of small plumose setae on retrolateral cheliceral face. Proximal region of retrolateral cheliceral scopula with several enlarged, truncated-tipped plumose setae (Plates 4–5). Opposing area on prolateral trochanteral face of palp with weak plumose scopula and group of robust isolated spike setae (Plate 6). Leg and palp segment lengths in Table 1. Tarsal

scopulae: tarsi I–III integral; tarsus IV divided longitudinally by weak line of setae in proximal 75%. Metatarsal scopulae: leg I 83%, leg II 80%, leg III 75%, leg IV 66% (I–III integral, IV bisected longitudinally by band of stiff setae). Paired claws smooth, third claw absent. All tarsi with paired claw tufts. Clavate trichobothria: restricted to U-shaped region on apical half of all tarsi (tarsus I, 24L, R leg I atypical regrowth). Spination: palp tibia 1DRV (0R), 1DPV; leg I tibia 1DPV; leg II tibia 1DPV; leg III tibia 1DRV, 1DPV, metatarsus 1MPV, 1DRV, 1DMV, 1DPV, 1MPL, 1DPD, 1DRD; leg IV tibia 2DRV, 1DPV, metatarsus 1MPV, 1DRV, 1DMV, 1DPV, 1MRD, 1MPL, 1DPD, 1DRD. Remaining leg segments aspinose. Coloration (in spirit): uniformly yellow-brown, with pale narrow dorsal



Plates 1–6: *Bacillochilus xenostridulans* gen & sp. n., holotype female. **1** Carapace, dorsal view; **2** Dorsal view; **3** Ocular tubercle, dorsal view; **4** Left chelicera, retrolateral view; **5** Retrolateral cheliceral scopula detail; **6** Left maxilla and trochanter, prolateral view. Scale lines=1 mm.



Figs. 1–3: *Bacillochilus xenostridulans* gen & sp. n. **1** Carapace, lateral view; **2** Spermathecae, dorsal view; **3** Right spinnerets, lateral view (1–2 holotype female, 3 paratype female). Scale lines=5 mm (1), 1 mm (2–3).

transverse bands at limb joints. Dorsal and lateral parts of abdomen with uniform reticulated pattern, apparently without dark spot and bar markings; ventral surface with narrow longitudinal dark line and slightly paler booklung covers and genital sclerite. Spermathecae (Fig. 2): paired and flattened with single terminal lobe. Lobe circular in cross-section. Setal fringe on posterior margin of epigastric scutum composed of long inwardly curved setae.

Paratype female (BMNH 1906.2.5.8–9): as holotype except: Total length 21.6. Carapace length 8.4, width 6.8. Abdomen length 10.5, width 6.4. Ocular tubercle length 1.15, width 1.51. Clypeus 0.15. Eye sizes: AME 0.38, ALE 0.44, PME 0.36, PLE 0.40. Labium with 63 cuspules. Maxilla with *c.* 190 cuspules. DS of posterior spinneret digitiform (Fig. 3). Chelicerae with 9R, 9L teeth on promargin. Leg and palp segment lengths in Table 2. Tarsal scopulae: tarsi I–III integral; tarsus IV divided longitudinally by weak line of setae in proximal 50%. Metatarsal scopulae: leg I 83%, leg II 83%, leg III 75%, leg IV 66%. Clavate trichobothria: (tarsus I, 18R, 22L). Spination: palp tibia 1DRV, 1DPV; leg I tibia 1DPV; leg II tibia 1DPV; leg III tibia 1DRV, 1DPV, metatarsus 1MPV, 1DRV, 1DMV, 1DPV, 1MPL, 1DPD, 1DRD; leg IV tibia 2DRV, 1DPV, metatarsus

1MPV, 1DRV, 1DMV, 1DPV, 1MPL, 1MRD, 1DPD, 1DRD. Remaining leg segments aspinose. Spermathecae not dissected.

Male: Unknown.

Distribution: Angola, Catumbella, Benguela.

Ecology: Unknown.

Discussion

It is worth noting that *Bacillochilus xenostridulans* gen & sp. n. possesses spermathecae with a single terminal lobe. This character is well-represented amongst the harpactirine genera, having been observed in certain species of *Harpactira*, *Pterinochilus*, *Brachionopus* and *Harpactirella*, and both *Eucratoscelus* species (Gallon, 2002, pers. obs.). Lobed spermathecae have not been found in *Ceratogyrus*, *Augacephalus*, *Idiothele* nor *Trichognathella* (Gallon, 2001, 2002, 2008).

It is tempting to speculate that “single lobed spermathecae” represents a plesiomorphic condition for the Harpactirinae, with expression of this characteristic being lost within the *Ceratogyrus/Augacephalus* clade (Gallon, 2005). *Idiothele* shows affinities with *Ceratogyrus* and *Augacephalus* with respect to strongly contrasting ventral leg and sternal coloration (Gallon, 2010), which is not marked in other harpactirine genera. However, *Trichognathella* would appear to be more closely related to *Harpactirella*, given that almost identical palpal bulb morphology is shown by *Harpactirella spinosa* Purcell, 1908. The taxonomic affinities of *Bacillochilus* gen. n. are less clear, but may become apparent with the discovery of mature male specimens.

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	Fe	Pa	Ti	Mt	Ta
I	7.0	4.7	5.0	4.2	3.8
II	6.5	4.3	4.5	4.1	3.6
III	5.5	3.6	3.9	4.8	3.7
IV	7.4	4.2	6.0	7.4	4.7
Palp	5.1	3.5	3.6	–	4.2

Table 1: *Bacillochilus xenostridulans* gen. & sp. n. Lengths of leg and palp segments of holotype female (BMNH 1906.2.5.8–9).

	Fe	Pa	Ti	Mt	Ta
I	6.0	3.9	4.3	3.8	3.5
II	5.5	3.7	3.8	3.6	3.4
III	4.9	3.2	3.4	4.3	3.5
IV	6.5	3.7	5.2	6.1	3.9
Palp	4.6	3.1	2.9	–	3.9

Table 2: *Bacillochilus xenostridulans* gen. & sp. n. Lengths of leg and palp segments of paratype female (BMNH 1906.2.5.8–9).

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