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Source: African Invertebrates, 56(2) : 477-482

Published By: KwaZulu-Natal Museum

URL: https://doi.org/10.5733/afin.056.0216

African Invertebrates Vol. 56 (2): 477–482 Pietermaritzburg 12 August 2015

Ansienulina, a new genus of jumping spiders from tropical Africa (Araneae: Salticidae: Thiratoscirtinae)

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ABSTRACT

A new genus of jumping spider, *Ansienulina* gen. n., with the species *Ansienulina mirabilis* sp. n. (♂♀), is described from Kenya, Angola and Namibia.

KEY WORDS: Afrotropical Region, salticids, Arachnology, taxonomy, new species.

INTRODUCTION

The Thiratoscirtinae, a subfamily of jumping spiders, was erected by Bodner and Maddison (2012) on molecular grounds. It includes a few genera restricted to tropical Africa. The majority of them are distributed in Western Africa, and only a few species occur in the central part of the continent. Based on current evidence, the thiratoscirtines are forest-dwellers, living in leaf litter or on the foliage of plants. The phylogenetic relationships within this subfamily are poorly known and demand further study.

I describe a new genus, *Ansienulina* gen. n., and place it in the Thiratoscirtinae, as it shares features with other members of this group (see diagnosis of the genus). The only species of this genus, *A. mirabilis* sp. n., occurs in Kenya, Angola and Namibia.

MATERIAL AND METHODS

The type material is kept in the Museum of Evolution, Uppsala University (MEUU) and in the Natural History Museum, London (NHM).

The specimens have been stored in ethanol (70% solution). Specimens were studied and measured under a stereomicroscope (Nikon SMZ1000), equipped with a camera and an ocular micrometer scale. The male pedipalp and the female epigyne were dissected for more detailed study. The epigyne was macerated in 5% hot KOH for a few minutes, dehydrated with 100% ethanol, cleared in xylene and put in eugenol for temporary mounts. Dimensions are given in millimetres. Descriptions of colour patterns are based on the alcohol-preserved specimens.

TAXONOMY

Family Salticidae Blackwall, 1841

Genus ***Ansienulina*** gen. n.

Type species: *Ansienulina mirabilis* sp. n.

Etymology: The generic name is a patronym dedicated to Ansie Dippenaar-Schoeman, eminent arachnologist and specialist in thomisid spiders. Gender feminine.

Diagnosis and affinities: *Ansienulina* gen. n. is a small-sized salticid with a high carapace, relatively large anterior median eyes, eye field narrowing posteriorly, and first pair of legs with long spines on the ventral surface of the tibiae and metatarsi. The female palp

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has a single tarsal spine on the prolateral surface. The aforementioned body proportions, spination of leg I, and the presence of a spine on the female palp show similarities to other Thiratoscirtinae. The structure of the genitalia is unique (see diagnosis of the type species), though slightly resembling those in *Ajaraneola* Wesołowska & Russell-Smith, 2011 (see Wesołowska & Russell-Smith 2011, figs 15–20) and *Bacelarella* Berland & Millot, 1941 (see Szűts & Jocqué 2001, fig. 5b, e; Rollard & Wesołowska 2002, fig. 2b–e). The two latter genera are probably related to *Ansienulina*. However, the deflection of the cymbium and the course of the embolus separate *Ansienulina* from other salticids.

Ansienulina mirabilis sp. n.

Figs 1–14

Etymology: The specific name is Latin meaning "odd", and refers to the unusual structure of the male genitalia.

Diagnosis: A distinctive species, characterised by the structure of the copulatory organs. The male has the pedipalps with an unusual cymbium, which is curved to its dorsal surface, and a long embolus embracing the tip of the bulb from the dorsal side. The female is distinguished by the weakly sclerotised epigyne with spirally convoluted seminal ducts.

Description:

Dimensions (♂♀). Cephalothorax: length 1.5–1.7/1.7–2.1, width 1.1–1.3/1.3–1.5, height 0.9–1.0/0.8–0.9. Abdomen: 1.3–1.5/1.8–2.1, width 0.8–0.9/1.3–1.5. Eye field: length 0.7–0.8/0.8–0.9, anterior width 1.1–1.2/1.3–1.4, posterior width 1.0–1.1/1.1–1.2.

Male.

Very small spiders, general appearance as in Fig. 1. Carapace high, highest at posterior lateral eyes, with steep posterior thoracic slope (Fig. 2). Coloration dark yellow to light brown, with lighter median streak on thoracic part, but many specimens bleached in alcohol, with very light, almost white body. Fovea visible, sulciform. Eye field brownish grey, distance between anterior lateral eyes longer than between posteriors. Anterior median eyes large, encircled by small scale-like light hairs (Fig. 3), blackish rings surrounding eyes (except anterior medians), posterior lateral eyes convex. Fine colourless hairs on eye field, a few longer bristles near eyes. Clypeus very low, chelicerae with two teeth on promargin, single retromarginal tooth, cheliceral fang short. Mouthparts yellow. Sternum convex. Abdomen oval, narrower than carapace, grey, with light-yellow median serrate streak and two light belts laterally (Fig. 1). Sides marked with grey (Fig. 2), venter light with dark patches at base of spinnerets (Fig. 4). Spinnerets whitish. Legs yellow, only lateral surfaces of femora I and distal end of all patellae tinged with grey. Spines long, brown. Femora of all legs with 1-1-3 spines dorsally. Tibia I with four pairs of long ventral spines and two shorter ones on prolateral surface; metatarsus I with two pairs of long ventral spines and two shorter ones prolaterally (Fig. 7). Tibia II with single spine on both lateral surfaces, 4 pairs ventrally; metatarsus II with single spine on both lateral surfaces, 2 pairs ventrally and apical pair dorsally. Legs III and IV—tibia with single spine on both lateral sides, 2 pairs ventrally; metatarsus with single spine on both lateral sides, 6 apical spines. Pedipalps light brown, basal segments dirty yellow. Cymbium narrow, especially in its apical half, with rounded retrolateral lobe at

base (Fig. 11). Tip of cymbium with retrolateral retortion (Fig. 9) and strongly bent to its dorsal surface (Figs 8, 10). Bulb oval, slightly reclinate from axis of palp; embolus very long and thin, whip-shaped (Fig. 9). Tibia with triangular dorsal apophysis and second rounded apophysis, placed retrolaterally (Figs 10, 11).

Female.

Slightly larger than male, similar in shape and coloration. Carapace orange-brownish (in majority of specimens bleached). Abdomen uniformly greyish beige, legs light. A few thin, short hairs on body. Prolateral spine on palpal tarsus (Fig. 12). Epigyne very weakly sclerotised (Fig. 13). Seminal ducts long and thin, forming spiral composed of three loops, spermathecae oval (Fig. 14).

Holotype ♂: KENYA: Kiseni, Kakamega Forest, 00°17'N 34°51'E, 1600 m, 1969, leg. A. Holm (MEUU).

Paratypes: together with holotype, 1♂ (MEUU); NAMIBIA [SOUTH WEST AFRICA]: without precise locality, British Museum expedition, iii.1972, leg. P.H. Hammond, pitfall trapping, 1♂ (NHM). ANGOLA: 9 km NW from Dundo, Luachimo R., Chitato gallery forest, 07°22'S 20°50'E, 500 m, x.1947, leg. A. de Barros Machado, 3♂ 12♀ (NHM, Ang. 180.6); same label data as previous but ix.1947, 1♀ (NHM, Ang. 44.8); same label data as previous but v.1948, 1♂ (NHM, Ang. 823.2); 5 km S from Dundo, Mussungue R., ix.1947, gallery forest, in litter, 1♂ (NHM, Ang. 211.12); same label data as previous but ix.1946, 1♂ 1♀ (NHM, Ang. 27.8).

Other material examined: KENYA: Kiseni, Kakamega, Forest Station, 1550 m, 27.i.1979, leg. A. Holm, two male palps, without spider (MEUU).

Remarks: Individuals from Kenya are darker than the others, which is probably the effect of the montane microclimate at these sites.

Probably the same or a very similar species (without any details) was illustrated by Simon (1903, fig. 861i) and erroneously labelled as *Eustiromastix major* (cf. reprint of his drawing, Fig. 15 herein, with Fig. 10). Members of the genus *Eustiromastix* Simon, 1902 are distributed only in the Neotropics. Already Galiano (1979) in her revision highlighted this mistake by Simon.

Distribution: Specimens of this species were collected in northeast Angola and western Kenya. They are also found in Namibia, but the precise locality was never recorded.

Habitat: All individuals were found in forest litter. The species probably lives on the ground in tree-covered areas.

ACKNOWLEDGEMENTS

I thank Janet Beccaloni and Anthony Russell-Smith for sending specimens for study. Galina Azarkina, Dmitri Logunov and Charles Haddad reviewed the manuscript and provided critical comments and valuable suggestions.

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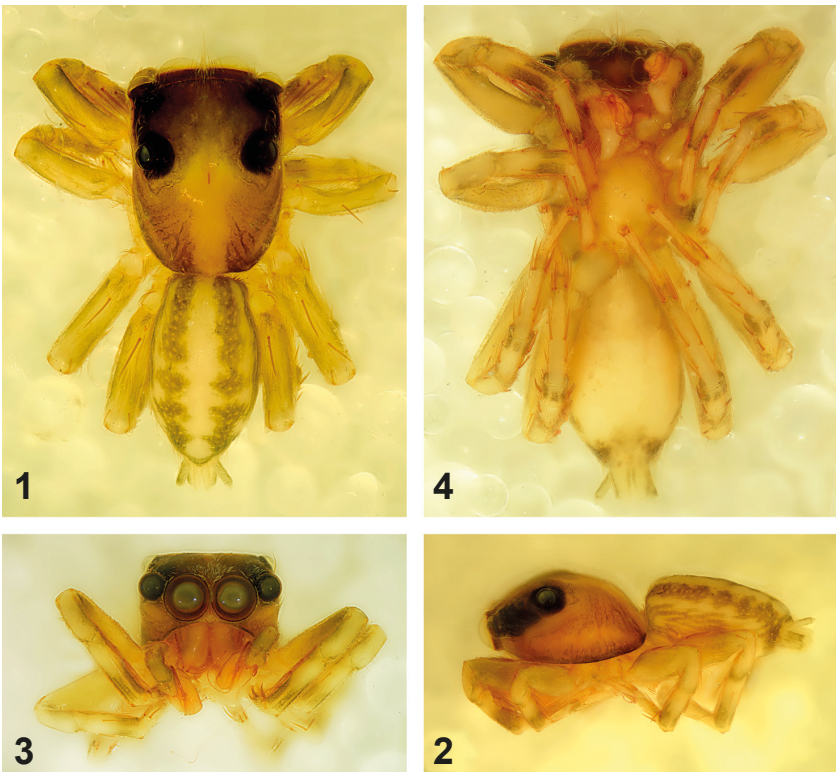
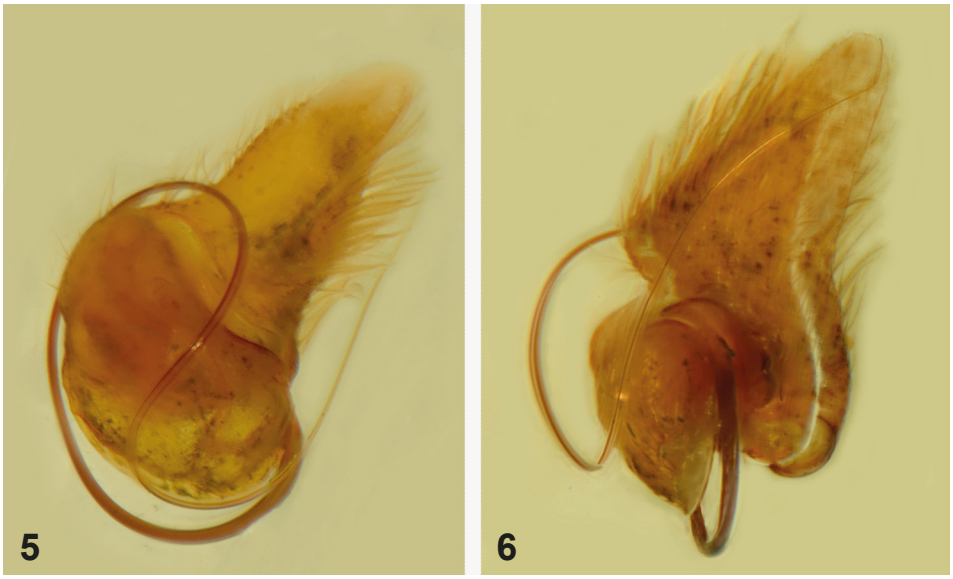
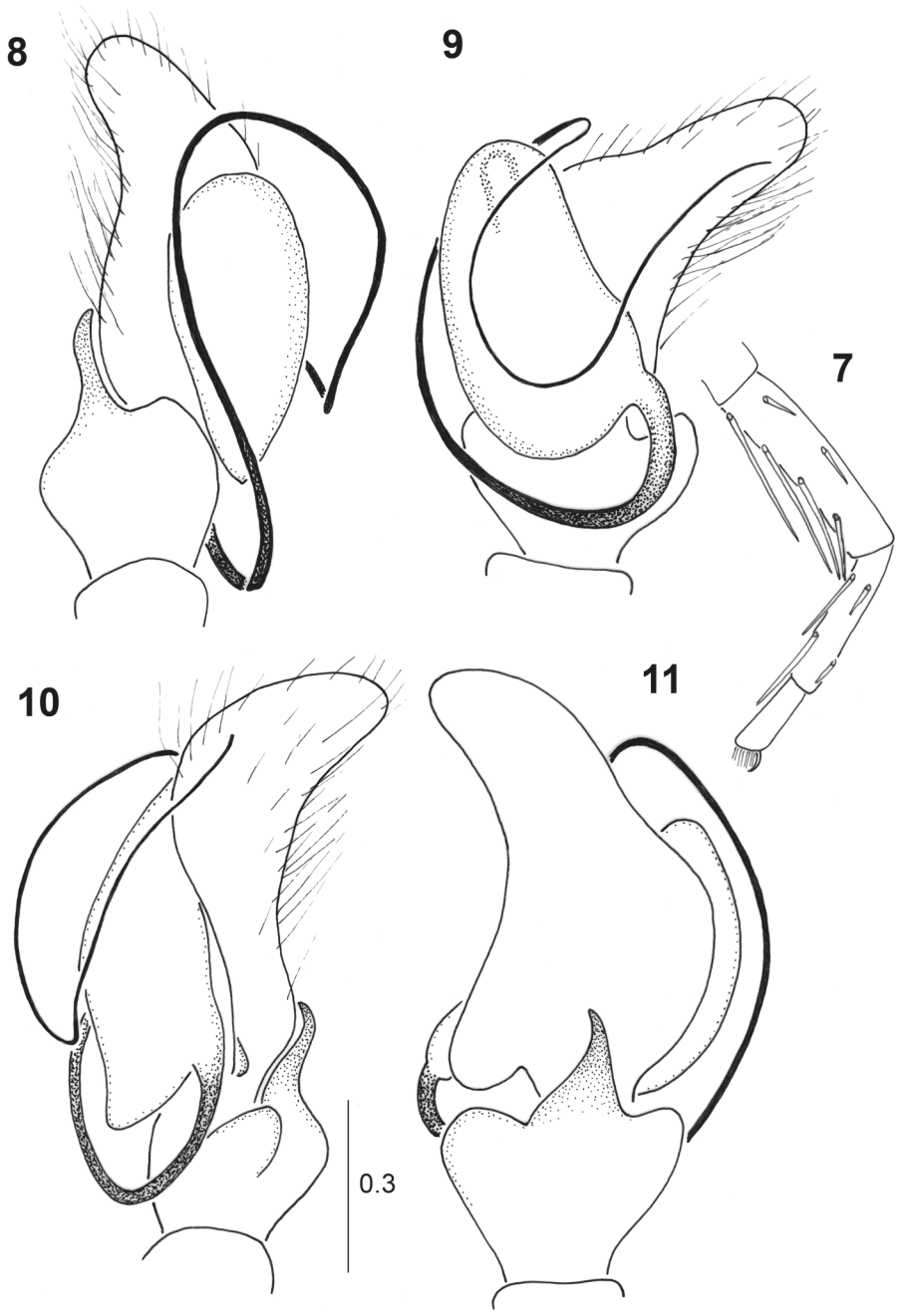


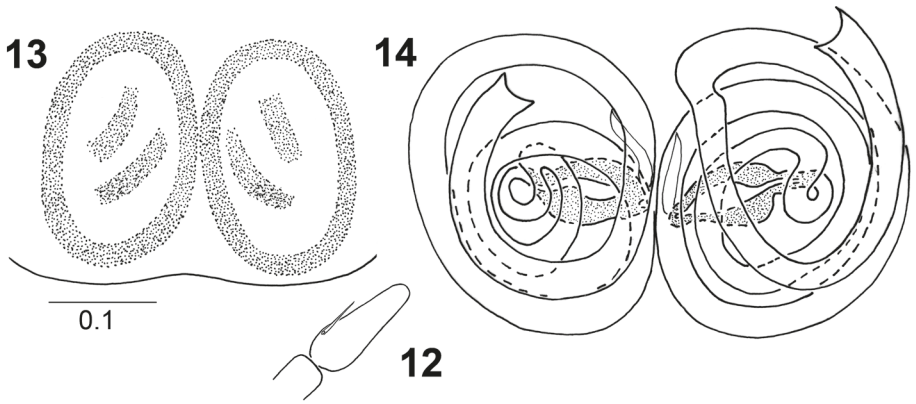
Figs 1–4. *Ansienulina mirabilis* sp. n., holotype ♂: (1) dorsal habitus; (2) lateral view; (3) frontal view; (4) ventral view.



Figs 5–6. *Ansienulina mirabilis* sp. n., paratype ♂, palpal organ in (5) ventral and (6) retrolateral views.



Figs 7–11. *Ansienulina mirabilis* sp. n., paratype ♂: (7) distal segments of first leg; (8–11) palpal organ in (8) prolateral, (9) ventral, (10) retrolateral and (11) dorsal views.



Figs 12–14. *Ansienulina mirabilis* sp. n., paratype ♀: (12) tip of palp; (13) epigyne; (14) internal structure of epigyne.

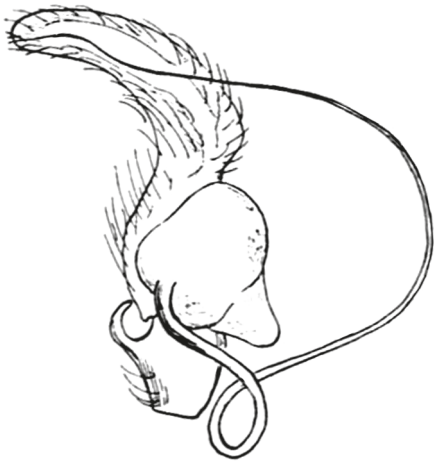


Fig. 15. Copy of Simon's (1903) figure of "*Eustiromastix major*".