

REDESCRIPTIONS OF LITTLE KNOWN JUMPING SPIDER GENERA (ARANEAE: SALTICIDAE) FROM WEST AFRICA

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The type species of four little known jumping spider genera: *Alfenus* SIMON, 1902, *Pellolessertia* STRAND, 1929, *Saraina* WANLESS et CLARK, 1975 and *Stenaelurillus* SIMON, 1886 are redescribed and illustrated from Central Africa. The hitherto unknown male of *Saraina rubrofasciata* WANLESS et CLARK, 1975 is described. *Stenaelurillus nigratarsis* SIMON, 1886 is proposed as a junior synonym of *Stenaelurillus nigricaudus* SIMON, 1886 and *Stenaelurillus cristatus* WESOŁOWSKA et RUSSELL-SMITH, 2000 is recorded from Ghana and new illustrations are given for the males. *S. nigricaudus* is recorded from Gambia for the first time.

Key words: redescription, synonymy, *Alfenus*, *Pellolessertia*, *Saraina*, *Stenaelurillus*

INTRODUCTION

In spite of the increasing number of taxonomical papers dealing with jumping spiders, the Afrotropical salticids are still poorly known. Some 550 salticid species (in 115 genera) are recorded from the Afrotropical region, out of the 5027 species currently known worldwide (in 550 genera) (PLATNICK 2005). Information about salticids of South and East Africa are found in LESSERT (1915, 1925, 1936), CAPORIACCO (1940, 1941, 1947, 1949) and WESOŁOWSKA & RUSSELL-SMITH (2000). The exploration of Central and West Africa is less thorough. Only a few papers (BERLAND & MILLOT 1941, WANLESS & CLARK 1975, WESOŁOWSKA & SZEREMETA 2001, ROLLARD & WESOŁOWSKA 2002) have been devoted to this topic in the last few decades. Many new genera have been described recently (WESOŁOWSKA & RUSSELL-SMITH 2000, WESOŁOWSKA 2001, WESOŁOWSKA & SZÚTS 2001, ROLLARD & WESOŁOWSKA 2002), but at the same time many “old” genera were “forgotten”. The present paper redescribes several “old” peculiar jumping spider genera, for which very little taxonomical information is available (*Alfenus*, *Pellolessertia*, *Saraina* and *Stenaelurillus*). Redescriptions are based on type material as well as new material from various museums (see material and methods section).

MATERIAL AND METHODS

Specimens were examined and illustrated using a Leica MZAPO stereoscopic microscope, with a camera lucida. Further details were studied using a Leica DMRXE compound microscope. Digital microscope images were recorded using a Nikon DMX1200F camera attached to a Leica MZ16 stereoscope and edited using the software package Auto-Montage. Left structures (palps, legs etc.) are depicted unless otherwise stated. Hairs and macrosetae are not depicted in most cases in the final palp and epigynum drawings. All measurements are given in millimetres.

Female genitalia were excised using surgical blades or sharpened needles. The specimen was then transferred to lactic acid for examination under the microscope, temporarily mounted on a slide.

The specimens studied are deposited in the following institutions: Hungarian Natural History Museum, Budapest (HNHM), Musée national d'Histoire Naturelle, Paris (MNHN), Musée royal de l'Afrique Centrale (MRAC), Zoological Museum, University of Copenhagen (ZMUC).

Abbreviations used: AEW = width of anterior eye row, ALE = anterior lateral eyes, AME = anterior median eyes, HSZE = Hungarian Soil Zoological Expedition to Congo (BALOGH *et al.* 1965), OCA = ocular area, PEW = width of posterior eye row, PLE = posterior lateral eyes, PME = posterior median eyes.

TAXONOMY

Alfenus SIMON, 1902

(Figs 1–3)

Alfenus SIMON, 1902a: 411. – SIMON 1903a: 722, 729, 733, 739, f. 868–870; 1903b: 112. – DIPPENAAR-SCHOEMAN & JOCQUÉ 1997: 264. (*Alfenus* considered a nomen dubium due to lost type material, p. 264).

Type species – *Alfenus calamistratus* SIMON, 1902 by monotypy.

Brief history – The genus was established for *A. calamistratus* from Congo by SIMON (1902a) and was based on a single male. Later, SIMON (1903b) described another species, *A. chrysopheus*, from Cameroon, also based on just a single male specimen. No females have been described and the holotypes of both species were considered lost (DIPPENAAR-SCHOEMAN & JOCQUÉ 1997). In our view, the two species are so different, that they may not belong in the same genus. Until more material appear, and especially females, it is impossible to decide whether these species are congeneric. We here include descriptions and illustrations of both species, including the type material.

Diagnosis – The type species of the genus (*Alfenus calamistratus*) has a characteristic hairy appearance (Figs 1C, 2A-B, 3A-B), which cannot be observed in *A. chrysophaeus* (either due the poor condition of the specimen (Figs 1B, 3G), or because it is truly lacking). Superficially similar strange hair-features are also present

in some *Stenaelurillus* species (*Stenaelurillus hirsutus* LESSERT, 1925 and *S. cristatus* see: WESOŁOWSKA & RUSSELL-SMITH 2000), but *Alfenus* is clearly different (Figs 2A-B). The carapace as seen from in front (Fig. 2A) and the copulatory organs (Figs 3 C-D) (tegulum provided with a prolateral ‘lobe’) of *A. calamistratus* slightly resembles those of *Plexippus* C. L. KOCH, 1846. However, it can be distinguished from *Plexippus* by the short and stout tibial apophysis curved inwards and by the long and thin embolus. The other species of *Alfenus*, *A. chrysophaeus*, has a bifid tibial apophysis and quite different from both *A. calamistratus* and *Plexippus*. SIMON (1903a) placed the genus into his group Plexippeae together with genera such as: *Plexippus*, *Pharacocerus*, *Malloneta*, *Dasycyptus*, *Thiratoscirtus*, *Pochyta*, to mention a few.

Description – Large (6.9–9.2) and hairy salticid spiders, with unidentate chelicerae (Figs 1–3). Carapace dark brown, medium height, highest at the PLE’s, which is slightly raised. Chelicerae rather robust, and hairy. Promargin with two small teeth, retromargin with one large tooth. Chelicerae, gnathocoxae, labium and sternum brownish. Legs of almost equal length, with dense spination.

Copulatory organs – with rather simple structure. Due the questionable placement of *A. chrysophaeus* it is hard to give a diagnosis which applies to both species (Figs 3C-F). Tibia with a single, short and stout retrolateral apophysis. Tegulum opaque, sperm duct hardly visible. Embolus length medium to short. Females unknown.

Species included – *A. calamistratus* SIMON, 1902 and *A. chrysophaeus* SIMON, 1903.

Distribution – Democratic Republic of the Congo and Cameroon or Equatorial Guinea. PLATNICK (2005) list *A. chrysophaeus* from Equatorial Guinea, but SIMON’s original label say ‘Cameroun’, even though the species was described in a paper with the title ‘Arachnides de la Guinée Espagnole’ (now Equatorial Guinea). The exact origin of the holotype of *A. chrysophaeus* is therefore uncertain.

Alfenus calamistratus SIMON, 1902
(Figs 1A, C, 2A-F, 3A-D)

Alfenus calamistratus SIMON, 1902a: 411. – SIMON 1903a: 739.

Diagnosis – Tibial apophysis of the palp short and robust (Fig. 3D). The tegulum is also characteristic, with a prolateral outgrowth (Fig. 2D, F).

Description – Male: Carapace brown, with many white, brownish-orange hairs (Figs 2A-B). Ocular area bordered by brown hairs and with two large ‘horns’ consisting of orange and orange-brown setae (Figs 3A-B). ‘Horns’ situated between PME, their inner side with white basal hairs. In dorsal view, ocular area with a white triangle, lateral sides of carapace covered with white hairs. Eyes with black rings, covered with differently coloured hairs. AME surrounded by orange and white, PME’s and PLE’s surrounded by brown hairs (Figs 2A-B, 3A-B). Clypeus with brown hairs and a few white ones at the center. Chelicerae robust, dark brown, with many hairs. Gnathocoxae, la-

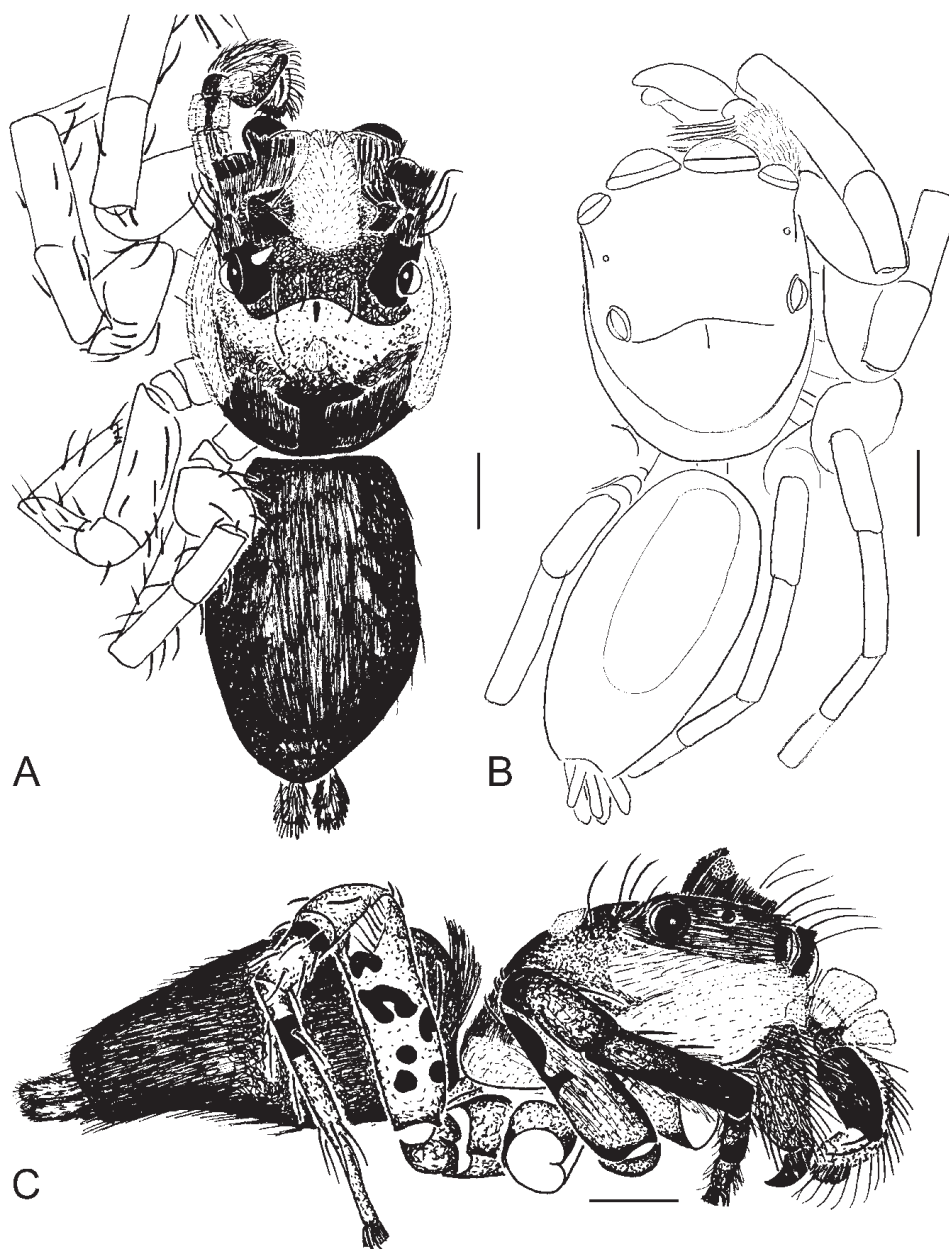


Fig. 1. Habitus of *Alfenus*. A= *Alfenus calamistratus*; B= *A. chrysopaeus*; C= *A. calamistratus*.
Scale = 1.0 mm

bium and sternum brown. Leg segments brownish-yellow. Femora with dark spots on yellowish background. Leg I–II with blackish tibia, metatarsi black distally, other leg segments light brown. Leg III–IV paler with dark spots. Abdomen oval, hairy with an unclear pattern on a brownish background.

Measurements – Male: total length 9.25. Carapace 4.25 long, 3.25 wide, 1.21 high at PLE. AEW 2.75, PEW 2.25, OCA 1.35 long. Abdomen 4.25 long 2.55 wide.

Palp (Figs 3C–D) – All palpal segments covered with thick, white, retrolateral brushes of hairs. Tibia with a strong short black retrolateral apophysis. Tegulum strongly sclerotized, sperm ducts not visible. Embolus moderately long, thin, and whip-like.

Female: unknown.

Distribution – Democratic Republic of the Congo.

Material examined – Type material: *Alfenus calamistratus* SIMON, 1902, holotype (examined), male from Congo. Handwritten labels in tube: “22084 *Alfenus calamistratus* E. S., Congo (Blaise)”; “22084” (MNHN 22084).

Other material: 1 male from Democratic Republic of the Congo, Méya, HSZE Nr 39: 29.X. 1963, leg. J. Balogh & A. Zicsi, “singled in apartment, on walls, around house, in plam [*sic!*]-roof” [probably palm-roof] (HNHM SALT395).

Alfenus chrysophaeus SIMON, 1903
(Figs 1B, 2G–H, 3E–G)

Alfenus calamistratus SIMON, 1903*b*: 112; SIMON 1903*a*: 722.

Diagnosis – Male palp with a short tibial apophysis, wide at base. Embolus short, with a membraneous basal part. Male holotype: Holotype pale, probably due to many years in ethanol. Carapace brownish, ocular area yellowish. The hairy appearance characteristic for the type species of the genus, *Alfenus calamistratus*, is not observable, moreover there is no hairs on the carapace. Chelicera with two smaller prolateral and one larger retrolateral teeth. Abdomen oval, covered with hairs, with brownish arrow-shaped pattern on a whitish background. Legs almost equal in length, the forelegs brownish, hind legs yellowish with darker stripes.

Measurements – Male: total length 6.9. Carapace 3.25 long, 2.25 wide, 1.63 high at PLE. AEW 2.3, PEW 2.0, OCA 1.6 long. Abdomen 3.25 long, 1.65 wide.

Palp – With simple structure (Figs 3E–F). Tibia with short apophysis. Bulbus weakly sclerotized (in contrast to *A. calamistratus*), sperm ducts visible. Embolus short, with a membranous basal part. The palp of this species is so different from *A. calamistratus* that we are in doubt about the generic placement (Figs 2D, F, H). However, we have currently no suggestion for alternative placement of this species.

Female: unknown.

Distribution – Cameroon/Equatorial Guinea (see discussion under genus).

Material examined – Type material: Male holotype (examined): “21994 *Alf. chrysophaeus* E. S: Cameroun (la Escaul.)”; “21994” (MNHN 21994).

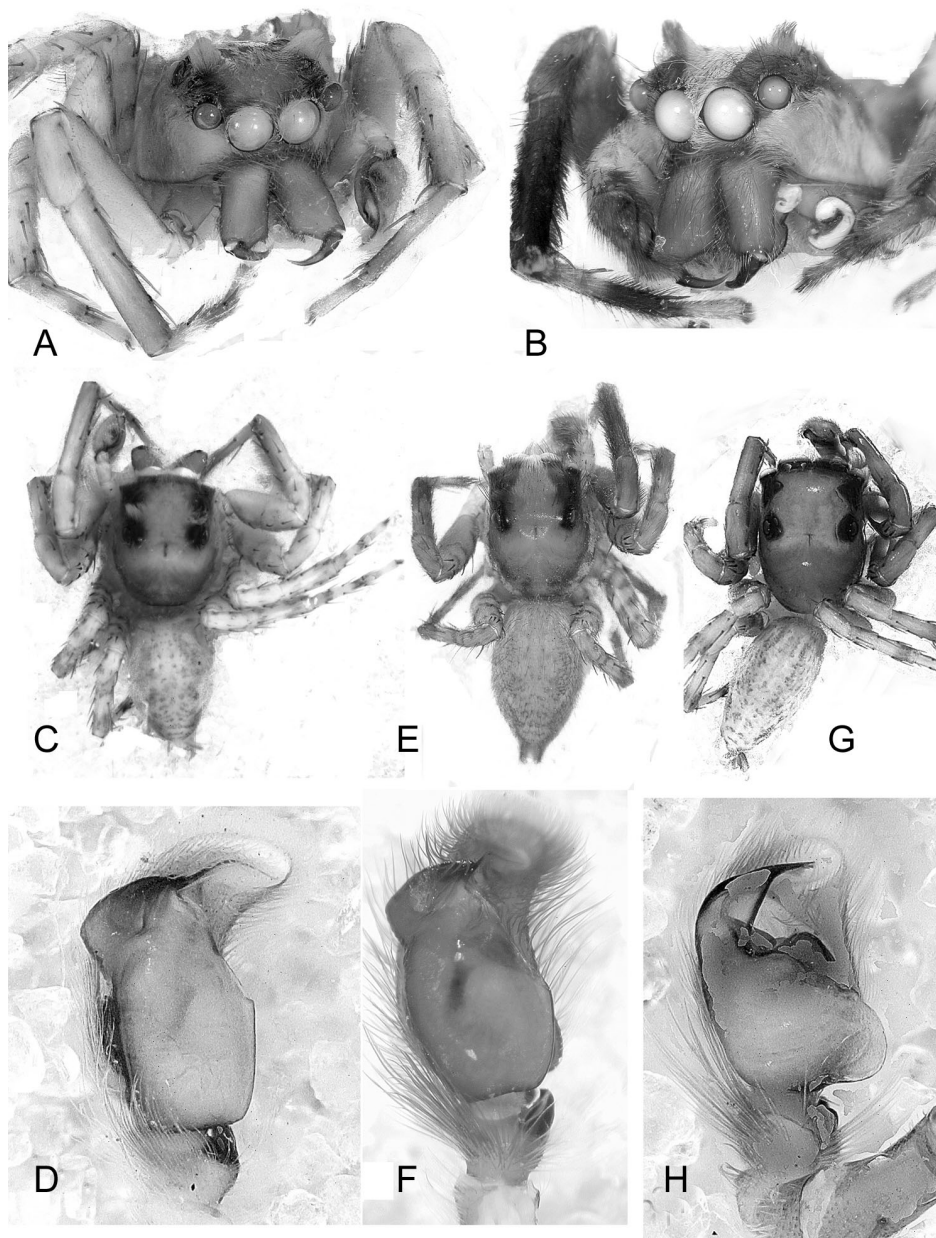


Fig. 2. Automontage images of *Alfenus*. *Alfenus calamistratus* A = male holotype, fronto-lateral view, B = specimen from Congo, fronto-lateral view, C = male holotype, dorsal view, D = palp of the holotype, ventral view, E = specimen from Congo, dorsal view, F = same, palp dorsal view; *A. chrysophaeus* G = male holotype, ventral view, H = palp of the holotype, dorsal view

Pellolessertia STRAND, 1929
(Fig. 4)

Avakubia LESSERT, 1927: 440

Pellolessertia STRAND, 1929: 14 – nom. nov. pro *Avakubia* LESSERT, 1927 non *Avakubia* PILSBRY, 1919 (Mollusca); PRÓSZYŃSKI 1984: 169.

Type species – *Avakubia castanea* LESSERT, 1927 by monotypy.

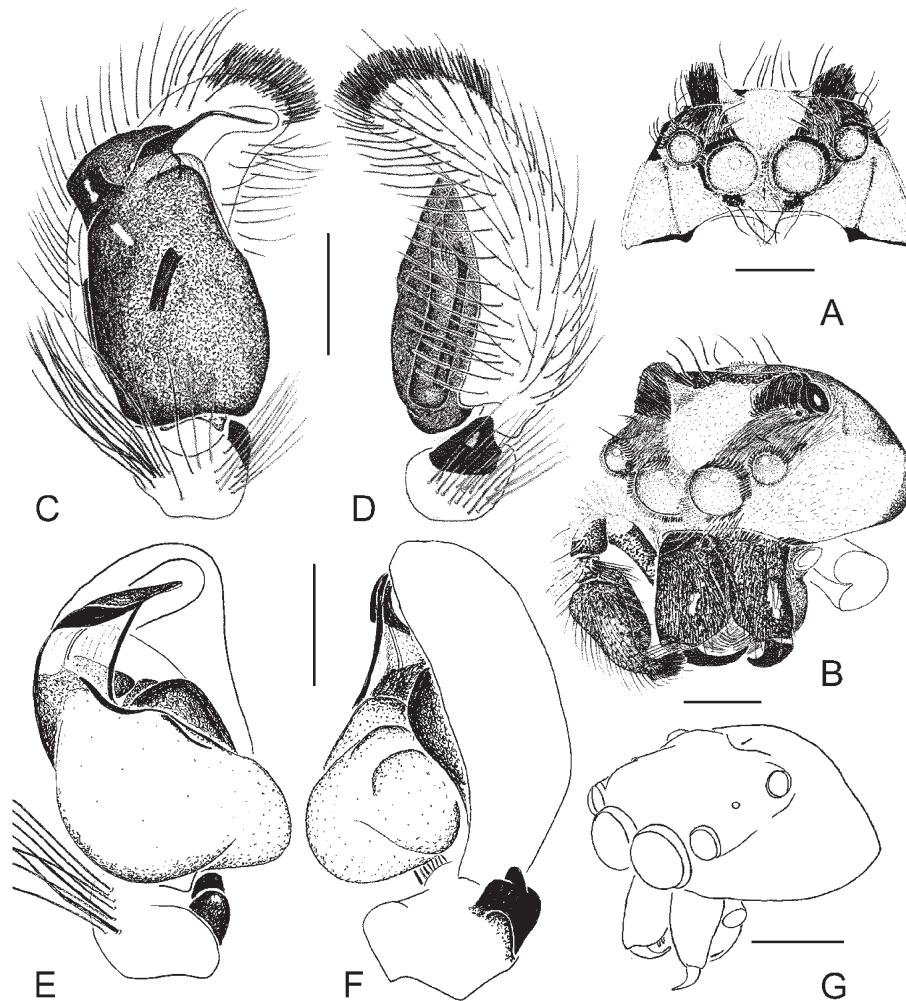


Fig. 3. *Alfenus* species. *Alfenus calamistratus* A= carapace, frontal view, B = same, fronto-lateral view, C = palp, ventral view, D = same, retrolateral view. *A. chrysophaeus* E = palp, ventral view, F = same, retrolateral view, G = carapace, fronto-lateral view. Scales 0.2 mm for palps, 1.0 mm for carapaces

Brief history – The genus was established for *Avakubia castanea* from Congo. The generic name was preoccupied by a mollusc genus (*Avakubia* PILSBRY, 1919), so it was replaced with *Pellolessertia* STRAND, 1929. Although the genus seems to be well represented in several collections (e.g. Tervuren, London, New York according to PRÓSZYŃSKI 2003) it is not very well documented. For example, the male is still known by the original description only. To provide new data and illustrations, a detailed description of a male from Cameroon is given.

Diagnosis and relationships – This genus is characterised by the very long third femur (Fig. 4C) and by the typical carapace shape, which is extraordinary wide (Fig. 4D). Carapace highest at PLE-s, which form a remarkable hump (Figs 4C-E). The long third femur is characteristic also for the so-called pellenid (*Pelleninae sensu* PRÓSZYŃSKI 1976) genera such as *Pellenes* SIMON, 1876, *Neaetha* SIMON, 1882, *Bianor* PECKHAM et PECKHAM, 1885, *Monomotapa* WESOŁOWSKA, 1999, etc. (see GRISWOLD 1987, LOGUNOV 1996, 2001a for further details). It seems that *Pellolessertia* belongs there, moreover its copulatory organs are also similar to those of pellenids (phylogenetic relationships are discussed in detail by GRISWOLD 1987): epigyne with blind ending central pocket, embolus short, originating from prolateral side of bulb. However, *Pellolessertia* differs from the other pellenids by having two tibial apophyses on the male palp: one retrolateral and one dorsal (Fig. 4B). The most similar genus to *Pellolessertia* seems to be *Monomotapa* WESOŁOWSKA, 2000 from Zimbabwe, which could be distinguished by the smaller tibial apophysis, and the retrolateral, basal, cymbial outgrown.

The genus includes only one species, the description is the same as type species description.

Copulatory organs – rather simple. Two tibial apophyses, short and stout. Retrolateral apophysis large, strongly sclerotized, slightly curved outside, dorsal apophysis brownish, like a pointed hump. Tegulum pale at central part, embolus wide, short and stout. Female epigyne illustrated by PRÓSZYŃSKI (1984).

Species included – *Pellolessertia castanea* (LESSERT, 1927).

Distribution – The genus was described from the former Zaïre (Avakubi, Democratic Republic of the Congo, 1°20'N, 27°34'E), and is recorded now from Cameroon. DIPPENAAR-SCHOEMAN and JOCQUÉ (1997) give the distribution range as Zaïre to Ethiopia, without further specification.

Pellolessertia castanea (LESSERT, 1927)
(Fig. 4)

Avakubia castanea LESSERT, 1927: 412–414.

Pellolessertia castanea (LESSERT, 1927): STRAND 1929: 14; PRÓSZYŃSKI 1984: 169.

Diagnosis – The species is characterized by the two tibial apophyses of the palp (Fig 4B). The embolus short and wide (Fig 4A).

Diagnosis – Male: Large and hairy spiders, with a characteristic carapace shape (Fig. 4D). Carapace yellowish chestnut-brown, covered with white hairs. Thoracic region also yellowish brown, covered sparsely with white hairs. Chelicerae darker, rather hairy, delicate, clypeus with a dense white moustache. Chelicerae, gnathocoxae, labium and sternum yellowish brown. Legs almost equal

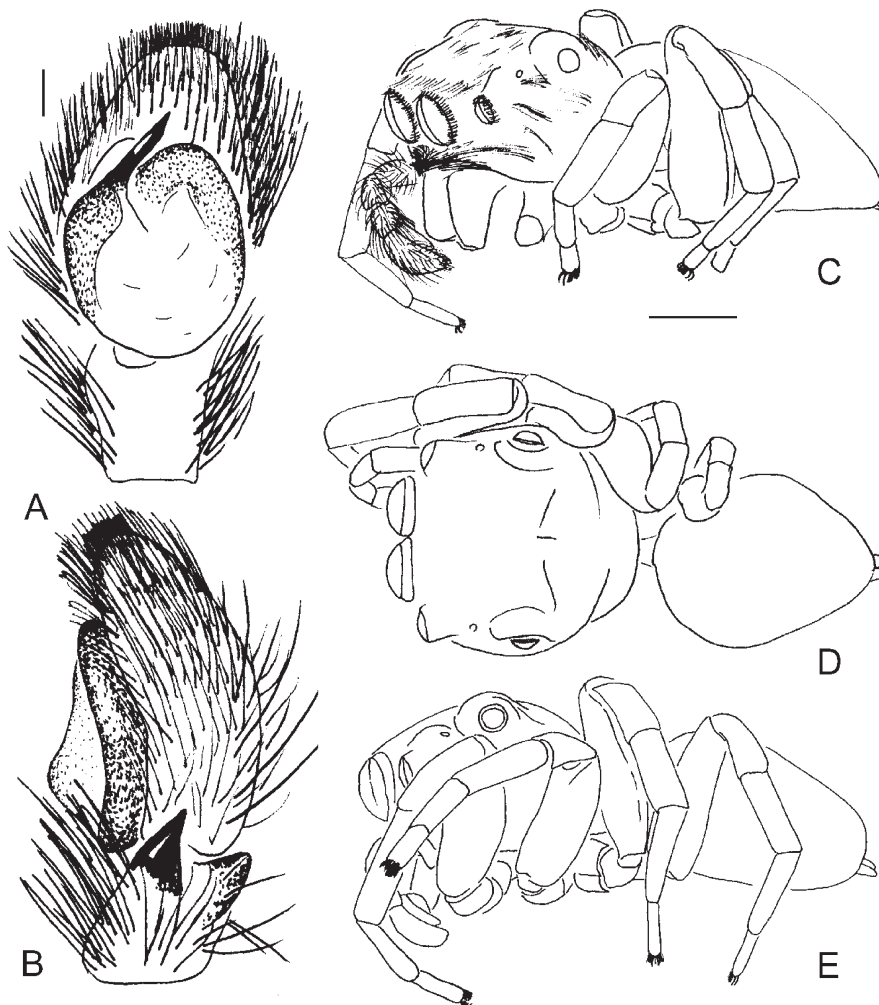


Fig. 4. *Pellolessertia castanea*. A= palp, ventral view, B= same, retrolateral view, C= habitus, fronto-lateral view, D= same, dorsal view, E= same, lateral view. Scales 0.1 mm for palps, 1.0 mm for habitus drawings

in length, except for third femur, which is noticeably longer (Fig. 4D, E). Legs with darker tibiae and metatarsi. Tarsi yellowish with darker longitudinal black stripes. Spination: metatarsus I with two ventral pairs and two lateral pairs (a proximal and a distal pair) of spines. Tibia I with four pairs ventral and two lateral pairs of spines. All patellae with a lateral pair of spines (a pro- and retrolateral piece). All spines fine and long. Palpal femur with one dorsal spine.

Measurements – Male: total length 6.05. Carapace 2.75 long, 2.5 wide, 1.75 high at PLE. AEW 2.25, PEW 2.35, OCA 1.5 long. Abdomen 3.25 long 1.85 wide.

Palp – simple (Figs 4A-B). All palpal segments covered with thick, white, retrolateral brushes and long fine brown prolateral hairs. Tibia with a strong short black apophysis. Tegulum sclerotized, with a paler central area, sperm duct visible. Embolus straight, short and stout.

Female: see LESSERT 1927, PRÓSZYŃSKI 1984.

Distribution – Republic of the Congo and Cameroon.

Material examined – Cameroon: 1 male from “Reserve forêstièrre de Makak (Campement Despierres), 12–23.VIII.1949, leg. J. BIRKET-SMITH (ZMUC).

Saraina WANLESS et CLARK, 1975

(Figs 5–6)

Saraina WANLESS et CLARK, 1975: 288, DIPPENAAR-SCHOEMAN et JOCQUÉ 1997: 264.

Type species – *S. rubrofasciata* WANLESS et CLARK, 1975 by monotypy.

Brief history – The genus *Saraina* was established by WANLESS and CLARK in 1975 for *Saraina rubrofasciata*. The description was based on five females from Ivory Coast, Nigeria and Cameroon. No further specimens of this genus has been reported until several other females were discovered in the Republic of the Congo. The specimens possess characteristic dense leg spination and colour pattern (see Figs 5A, C and WANLESS & CLARK 1975: fig. 23): abdomen light greyish-brown, with three orange longitudinal stripes. Several males with this abdominal pattern have been found in the same material suggesting their conspecificity with *S. rubrofasciata*.

Diagnosis and relationships – Representatives of the genus can be recognised by the dense spination of the legs (Figs 5A-B), and the unique copulatory organs (Figs 5E-G). Epigyne of females with two bent sclerotized structures (Figs 6A-B), male palp with tegulum much wider than high, embolus base at the prolateral side (Fig. 5G). Embolus originating on prolateral side of tegulum, curved upward between cymbium and tegulum, reemerging in front, then strongly curved into cymbial groove (Fig. 5G).

As WANLESS and CLARK (1975) and DIPPENAAR-SCHOEMAN and JOCQUÉ (1997) already pointed out, the relationships of this genus are unclear, because the copulatory organs are so unique and there isn't another genus known with similar structures.

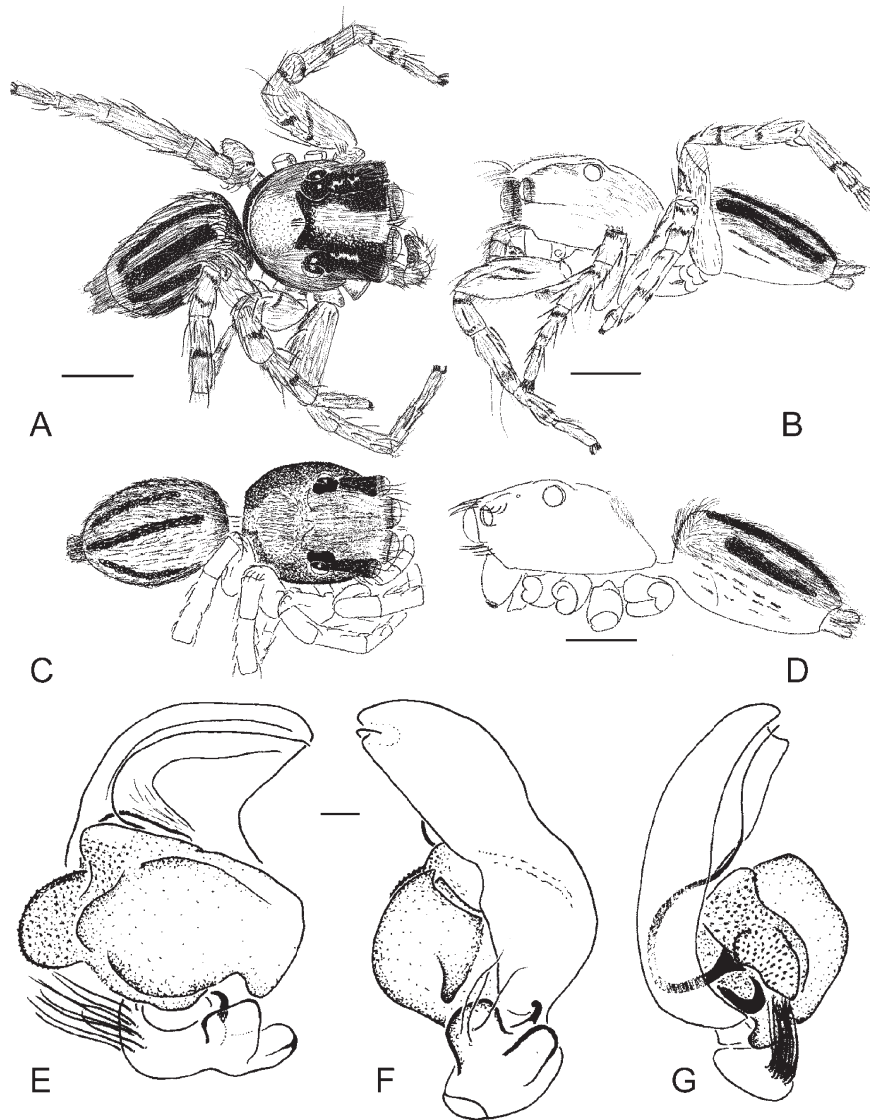


Fig. 5. *Saraina rubrofasciata*. A = male habitus, dorsal view B = same, lateral view C = female habitus, dorsal view D = same, lateral view, E = palp, ventral view, F = same, retrolateral view, G = same, prolateral view. Scales 0.1 mm for palps, 1.0 mm for habitus drawings

Diagnosis – The genus includes only one species, the description is the same as type species description.

Copulatory organs – Male palp with a remarkable shape (Figs 5E-G). Tibia with three apophyses. Embolus long, thin, whip-like, originates the prolateral side, directed towards the inside of cymbium. Female epigyne (Figs 6A-B) with two central, bent, sclerotized structure. Sperm ducts coiled.

Species included – *Saraina rubrofasciata* WANLESS et CLARK, 1975

Distribution – West and Central Africa: Ivory Coast, Cameroon, Nigeria and Republic of the Congo.

Saraina rubrofasciata WANLESS et CLARK, 1975
(Figs 5–6)

Saraina rubrofasciata WANLESS et CLARK, 1975: 288.

Diagnosis – The species can be recognised by the unique copulatory organs. Tibia of the male palp with three apophyses (Fig. 5E-G). Embolus long, thin, whip-like. It originates at the prolateral side and is directed towards the inside of cymbium (Fig. 5G). Epigyne of females with two bent sclerotized structures (Fig. 6A), sperm duct coiled (Fig. 6B).

Description – Male: Medium-sized spiders with fissident chelicerae. Carapace moderately high (Fig. 5B), dark brown, densely covered with greyish- to whitish hairs. Ocular area less densely covered, with black tegument, thoracic region with a whitish longitudinal band. Face yellowish (contrast to the dark tegument of the carapace). Clypeus white hairs comprising a sparse “moustache”. Chelicerae, gnathocoxae, labium and sternum pale yellow. Abdomen greyish, with three orange-brownish longitudinal stripes on dorsum, pale yellow on venter. As most of the colour pattern described above is composed of hairs, which easily come off, older individuals or specimens in poor condition are slightly different. Legs equal in length, all segments pale yellow, with several stripes composed of white- and black hairs. Legs with dense spination, spines fine and long. First metatarsus

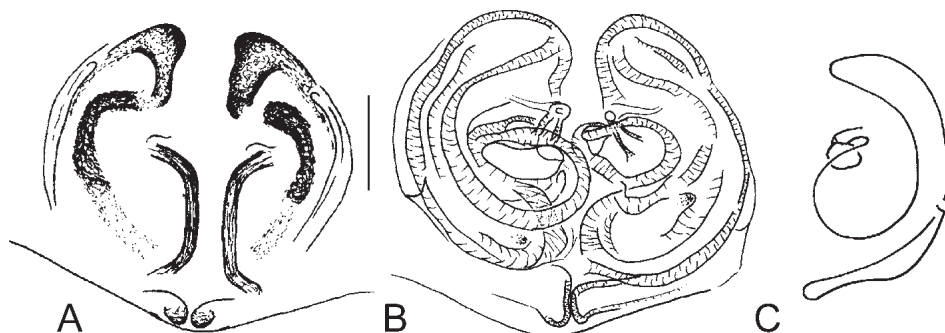


Fig. 6. *Saraina rubrofasciata*. A = female epigyne, ventral view, B = vulva dorsal view, C = diagrammatic course of sperm ducts. Scale 0.1 mm

with four pairs of spines, two pairs basally two distally. Metatarsus of leg II with a distal wreath of spines, which is usually present only in leg II–IV by other salticids. Tibia with eight pairs of spines. Patella with a pair of lateral spines (one pro- and one retrolateral spine). Femur I the shortest, femora III–IV the longest almost equal in length. Femora with dense spination also; the central row of spines (comprised of usually three spines) accompanied with two lateral rows of spines (they are more conspicuous on leg III–IV than the first two legs). The distal part of femur with 5–6 spines in a transverse row.

Measurements – Total length 3.94. Carapace 2.45 long, 2.05 wide, 1.5 high at PLE. AEW 1.95, PEW 1.64. OCA 1.35 long. Abdomen 2.45 long, 2.0 wide.

Palp – Palpal tibia with three apophyses, one small, strongly sclerotized, pointed and curved at the distal edge of tibia (Figs 5E–G). The others found more basally, and are wider, more blunt and less sclerotized. Coloured as tibia. Tegulum much wider than high, with a retrolateral concavity. Embolus base at the prolateral, granulated side of tegulum. Embolus directed towards behind the tegulum.

Female: Carapace tegument lighter than that of males (Fig. 5C), also with greyish- to whitish median hairs. Carapace lateral with orange brown hairs. Ocular area less densely covered with hairs, thoracic region with a whitish longitudinal band. Face pale yellowish (contrasting with dark tegument of the carapace). Clypeus with strong setae. Chelicerae, gnathocoxae, labium and sternum pale yellow. All leg segments pale yellow, densely covered with spines.

Abdomen greyish, with three orange-brownish longitudinal stripes on dorsum (Fig. 5C).

Measurements – Total length 8.7, carapace 3.2 long, 2.25 wide at PLE, 1.75 high at PLE. AEW 2.05, PEW 1.9. OCA 1.5 long. Abdomen length 4.5, width 3.32.

Epigyne – relatively complex, with two bent sclerotized structures (Fig. 6A). Spermducts long, longer than three times the diameter of spermathecae and coiled (Fig. 6B).

Distribution – West and Central Africa: Ivory Coast, Cameroon, Nigeria and Republic of the Congo.

Material examined – Republic of the Congo: 1 male, 1 female from Lefini Reserve, Nambouli river, gallery river, HSZE Nr 597, 7.I.1964, leg. J. Balogh & A. Zicsi, beaten from bushes of forest on looser, lighter sites (WU); 1 male from Lefini Reserve, Nambouli river, gallery river, HSZE Nr 660, 12.I.1964, leg. J. Balogh & A. Zicsi, beaten from bushes of forest (HNHM SALT405); 2 males from Brazzaville, ORSTOM park, HSZE Nr 11, 19.X.1963, leg. J. Balogh & A. Zicsi, beaten from trees and shrubs of park, mostly from border of woods (HNHM SALT406); 1 female, Kindamba, Méya, surroundings of Adam cave, HSZE Nr 121, 7.XI.1963, leg. J. Balogh & A. Zicsi, beaten from bushes overhanging dried-out brooklet (HNHM SALT391); 1 male from Brazzaville, Djoué river, HSZE Nr 37, 27.X.1963, leg. J. Balogh & A. Zicsi, soil traps on banks of brooklet, 5 traps for 3 days (HNHM SALT385); 1 male, Kindamba, Méya, Loulo river, HSZE Nr 160, 11.XI.1963, leg. J. Balogh & A. Zicsi, netted and singled material from low vegetation (HNHM SALT407).

Stenaelurillus SIMON, 1886 (Figs 7–9)

Stenaelurillus SIMON 1886: 351; 1901: 71; 1902b: 37; 1906: 1174; LESSERT 1925: 478, f. 64–65; 1927: 433, f. 18; REIMOSER 1934: 504, f. 25–26; CAPORIACCO 1936: 79; 1939: 374, f. 24; 1940: 859, f. 51; BERLAND & MILLOT 1941: 313, f. 14.; CAPORIACCO 1949: 474, f. 89a-b; DENIS 1966: 114, f. 15–17; CLARK 1974: 12 PRÓSZYŃSKI 1984: 138–139; SONG & CHAI 1991: 25, f. 16A-D; PRÓCHNIEWICZ & HEĆIAK 1994: 39, f. 7a-k, 8a-e; PENG 1995: 36, f.

6–12; SONG *et al.* 1999: 560, f. 317L-N, 318C, 329O; WESOŁOWSKA & RUSSELL-SMITH 2000: 96–102, f. 269–289; LOGUNOV 2001b: 66, f. 27–30.

Philotherus THORELL, 1895: 381.

Philotheroides STRAND, 1934: 275 – nom. nov. pro *Philotherus* THORELL, 1895 non *Philotherus* GRAY, 1855 (Aves).

Type species – *Stenaelurillus nigricaudus* SIMON, 1886.

Brief history – The genus *Stenaelurillus* was established by SIMON in 1886 to accommodate three salticid species from Senegal (*Stenaelurillus nigricauda* SIMON, 1886), Algeria (*Stenaelurillus nigritarsus* SIMON, 1886) and Tibet (*Stenaelurillus triguttatus* SIMON, 1886). All three species was described on the same page (SIMON, 1886: p. 43) and even though SIMON (1886) did not specifically establish *Stenaelurillus nigricauda* as the type species of the genus, this species was the first species on the page to be described and the description of this species was more detailed than for the others. Later in his monograph (SIMON 1903a) he mentioned *S. nigricauda* as type species of the genus. The original descriptions of SIMON (1886) mentioned only males (for all the three species) although mature female is present in both vials. Later specimens identified as *Stenaelurillus nigricauda* were illustrated by BERLAND and MILLOT (1941; male and female habitus, and male palp, ventral view). We examined the type material of *Stenaelurillus nigricauda* SIMON, 1886 and *Stenaelurillus nigritarsis* SIMON, 1886 and hereby provide illustrations and redescription of *Stenaelurillus nigricaudus*. We also formally suggest that *Stenaelurillus nigritarsis* is a junior synonym of *Stenaelurillus nigricauda* (see discussion later).

Diagnosis – All known *Stenaelurillus* species have two white longitudinal stripes on the carapace (Fig. 7C). Ocular area with strong bristles, present in both sexes. Male palp with a short, more or less straight, not coiled, visible embolus (Figs 7A, D). Tegular apophysis is visible, simple, finger-like, and situated some distance from embolus (Figs 7B, E).

Copulatory organs – Tegulum with characteristic retrobasal process or lobe (Figs 7A, D). Tibial apophysis simple, strongly sclerotized. PRÓCHNIEWICZ and HEĆIAK (1994) described another apophysis that should be characteristic for the genus. This apophysis is “broad, positioned dorso-laterally, and covered with short, strong hairs”. It seems to be present in *S. kronestedti* PRÓCHNIEWICZ et HEĆIAK, 1994; *S. fuscatus* WESOŁOWSKA et RUSSELL-SMITH, 2000 and *S. darwini* WESOŁOWSKA et RUSSELL-SMITH, 2000, but missing in *S. cristatus* WESOŁOWSKA et RUSSELL-SMITH, 2000, and *S. mirabilis* WESOŁOWSKA et RUSSELL-SMITH, 2000 (to mention a few). This kind of tibial apophysis can also be found in representatives of *Langelurillus* PRÓCHNIEWICZ, 1994 (e.g. *L. difficilis* WESOŁOWSKA et RUSSELL-SMITH, 2000; *L. manifestus* WESOŁOWSKA et RUSSELL-SMITH, 2000).

The male palp of *Stenaelurillus* in general is rather similar to that of *Microheros* WESOŁOWSKA et CUMMING, 1999.

Female epigyne is simple, with thick-walled copulatory openings. Copulatory ducts short (in *Microheros* they are long), often with accessory glands.

Species included – *Stenaelurillus* now include 22 species (PLATNICK 2005).

Distribution – Africa, Asia.

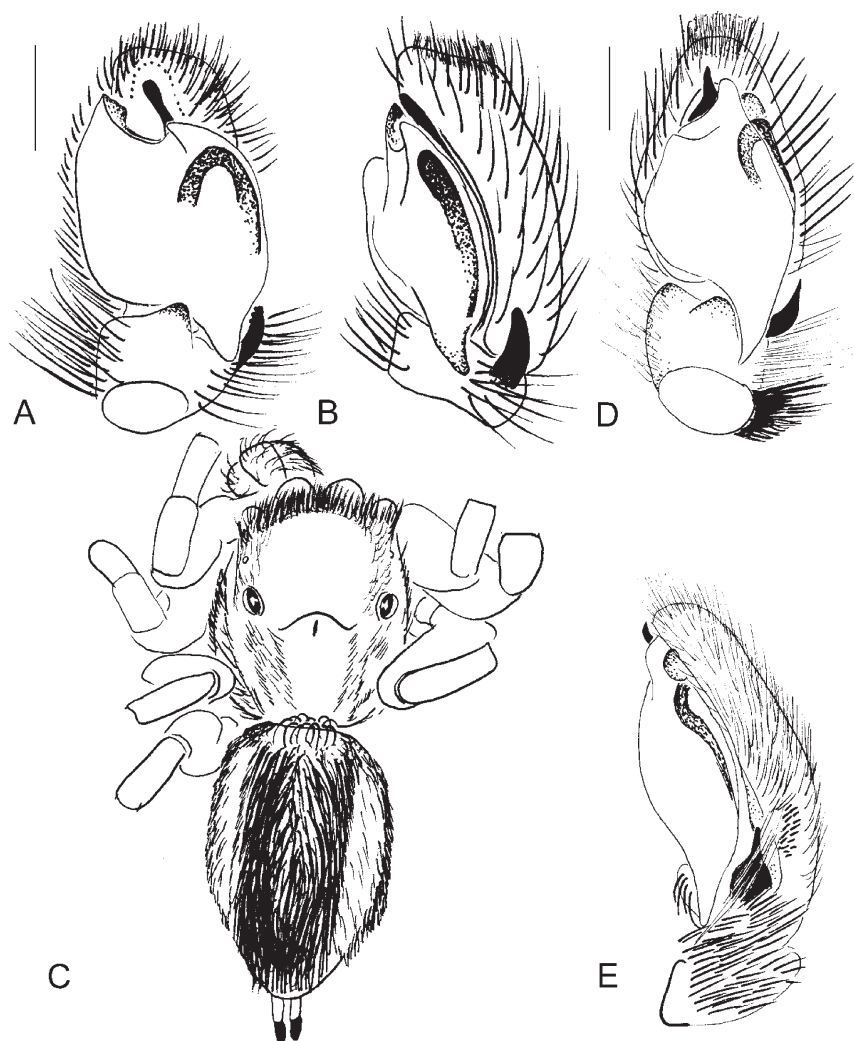


Fig. 7. *Stenaelurillus* species. *Stenaelurillus nigricaudus* A = palp, ventral view, B = same, retrolateral view. C = habitus, dorsal view; *S. cristatus* D = palp, ventral view, E = same, retrolateral view. Scales 0.1 mm for palps

Stenaelurillus nigricaudus SIMON, 1886
(Figs 7A-C, 8)

- S. nigricauda* SIMON, 1886: 351.
S. nigritarsis SIMON, 1886: 351 **syn. n.**
S. nigritarsis: CAPORACCO, 1936: 79.
S. nigricauda: BERLAND & MILLOT, 1941: 313, fig 14.
S. nigritarsis: CLARK, 1974:

Synonymy – The new synonymy was already suggested by CLARK (1974), although not formally established. He also noticed that one of the two females together with *S. nigritarsis* holotype represent another species (*Stenaelurillus* sp. and *Phlegra bresnieri* (LUCAS, 1846). SIMON described only the males of *S. nigricaudus* and *S. nigritarsis*. We compared the male palps of the type specimens and found them identical. We therefore suggest that *S. nigritarsis* is a junior synonym of *S. nigricaudus*. The females in the vials of *S. nigricaudus* and *S. nigritarsis*, however, have clearly different epigynes. CLARK (1974) suggested that the difference could reflect individual variation within the species, but in our opinion it could also reflect wrongly associated sexes. Additional females specimens found together with a *S. nigricaudus* male, also differ from each other and from the above mentioned females. Thus, matching males and females correctly are still problematic and must await discovery of more material. Females in holotype vial may not be conspecific.

Diagnosis – The species can easily be recognized by the shape and length of embolus: embolus with blunt tip and of medium length. Since the matching female of the species still in doubt, we cannot give diagnosis for the females.

Male holotype: Specimen in fair condition, but rather pale due to many years of storage in ethanol. Carapace reddish brown with two longitudinal stripes in the thoracic area, legs yellowish. Abdomen, with a poorly sclerotized reddish-brown scutum. Spinnerets pale yellow, with a black tip. Male from Gambia: specimen in good condition, carapace brown ocular area black. Thoracic area with two longitudinal white stripes, legs yellowish, densely covered with black hairs. Abdomen with three longitudinal stripes: the middle one is black, the lateral are white. Spinnerets yellow, with a black tip (Fig. 7C).

Measurements – Total length 4.0, carapace 2.0 long, 1.3 wide and 0.85 high at the PLE. Abdomen 2.0 long and 1.4 wide. AEW 1.17, PEW 1.1, OCA 0.78 long.

Male palp, with a slightly bent retrolateral tibial apophysis. Embolus of medium length and with a blunt tip.

Female from Dakar: Condition like male, but abdomen slightly damaged. Carapace reddish-brown, with two longitudinal whitish stripes on the lateral side of carapace, and two longitudinal stripes in the thoracic area. Abdomen damaged and dorsal pattern therefore difficult to reconstruct.

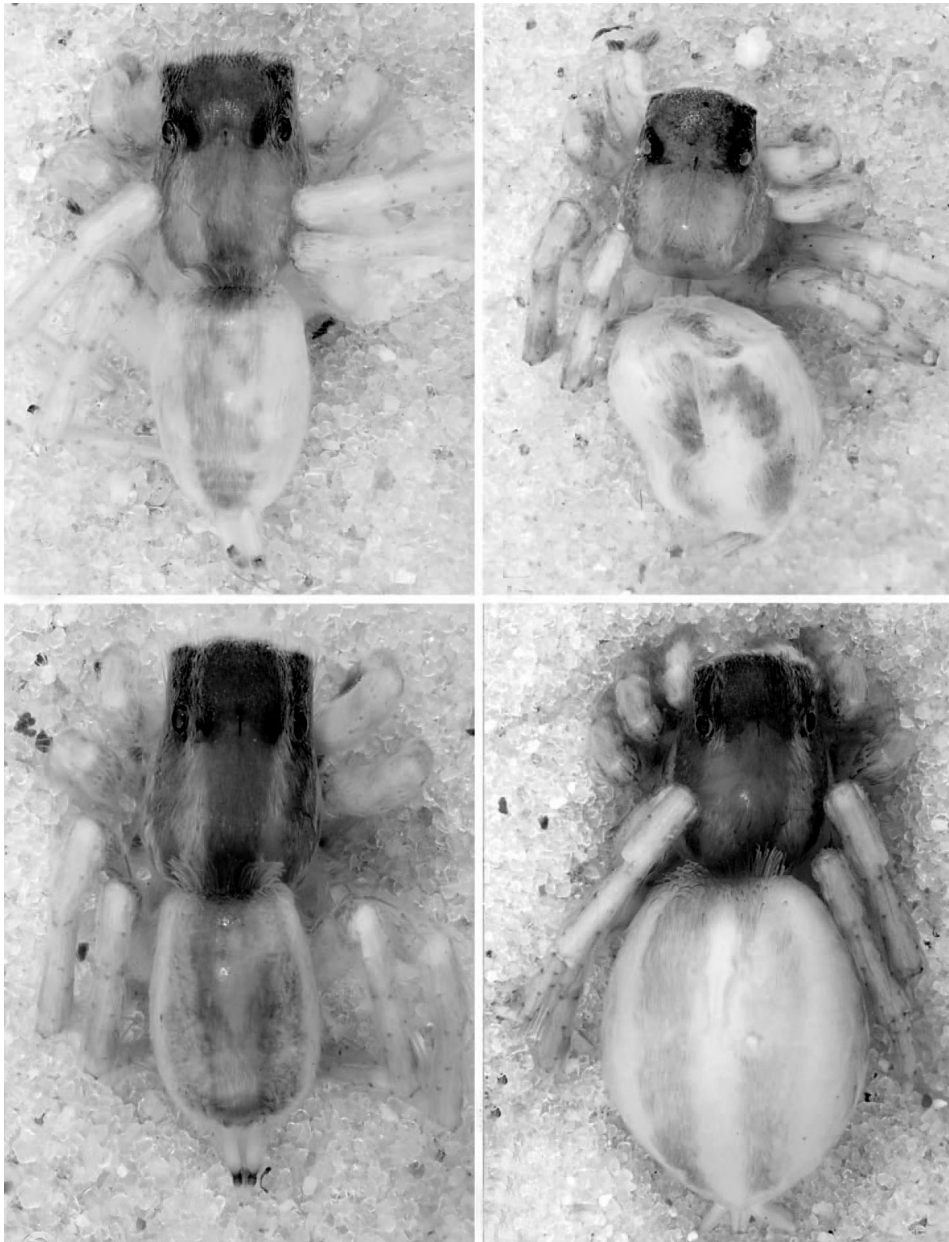


Fig. 8. Automontage images of SIMON's species. *Stenaelurillus nigricauda*. A = male holotype, B = female in the same vial; *Stenaelurillus nigratarsis*. C = male holotype, D = female in the same vial

Measurements – Total length 5.5, carapace 2.25 long, 1.63 wide and 1.0 high. Abdomen 3.0 long and 2.25 wide. AEW 1.25, PEW 1.25, OCA 0.75 long.

Epigyne – is similar to that of *S. kronestedti* PRÓCHNIEWICZ et HEĆIAK, 1994, but spermathecae are situated in front of copulatory openings. Vulva was not examined, due to lack of non-type material. However it must be emphasized there is no evidence, this female belongs to *S. nigricaudus*.

Distribution – Known from Senegal (Dakar) and Algeria (Bou Saada) and Gambia (Kiang West National Park).

Material examined – Type material: *Stenaelurillus nigricauda* SIMON, 1886, holotype (examined), male from Senegal. Handwritten labels in tube: “7032 *Stenae nigricauda* E. S., Dakar (Bl.)”; “7032” “TYPUS? M.E. GALIANO IX. 1959”. (MNHN 7032) [an adult female *Stenaelurillus* specimen also present in the tube however it is not mentioned in the original description, and therefore not type material]; *Stenaelurillus nigratarsis* SIMON, 1886, holotype (examined), male from Algeria, Bou-Saada. Handwritten labels in tube: “5415 *Stenae nigratarsis* E. S. B.Saada Marnio!” “5415” [2 adult females – one *Phlegra bresnieri* (LUCAS, 1846) and one *Stenaelurillus* specimen – and 1 juve-

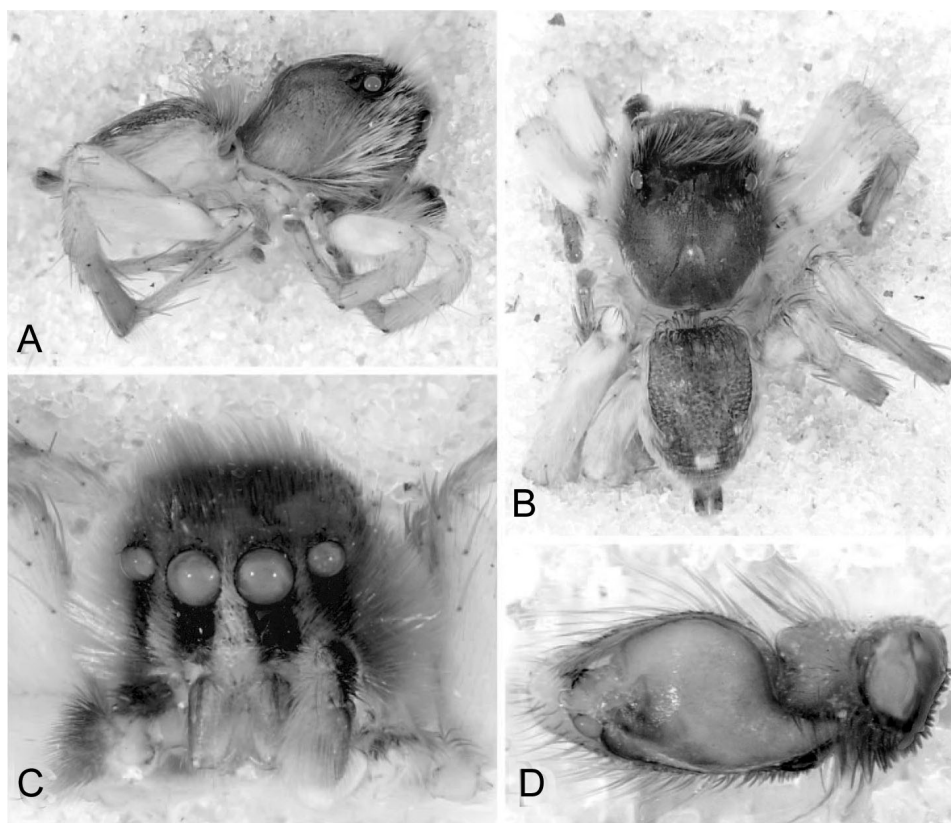


Fig. 9. Habitus of male *S. cristatus*. A = lateral view, B = dorsal view, C = fronto-lateral view; D = palp, ventral view

nile also present in the tube – however they are not mentioned in the original description, and are therefore not type material.]

Other material: 1 male from Gambia, Kiang West National Park, leg: L. LAJOS, X. 2001, det: T. SZŰTS.

Stenaelurillus cristatus WESOŁOWSKA et RUSSELL-SMITH, 2000
(Figs 7D-E, 9)

Stenaelurillus cristatus WESOŁOWSKA et RUSSELL-SMITH, 2000: 96, f. 261–268.

Diagnosis – The species can easily be recognized by the peculiar and strongly hirsute appearance of males and by the pin-shaped tibial apophysis of the male palp.

Description – Male: Carapace reddish-brown (Fig. 9A), without distinct longitudinal white stripes, ocular area hairy. In dorsal view, the hairy field brownish, extend from the second legs until the front eyes (Fig. 9B). As seen from the frontal view (Fig. 9C), the hairs below anterior eyes are black. Between the black stripes, the hairs are filled with air, working as a prisma, therefore rainbow coloured. Abdomen reddish-brown, with a reddish scutum and with three white dots on the dorsum.

Measurements – Total length 4.95, carapace 2.63 long, 1.63 wide and 2.13 high. Abdomen 2.13 long 1.50 wide. AEW 1.61, PEW 1.5, OCA 0.84 long.

Palp – Densely covered with white (prolateral side) and black (retrolateral side) hairs. Tibia with a straight pointed apophysis. Retrolateral side of the cymbium covered with thick strong setae. Embolus blunt almost hidden behind the tegular apophysis (Figs 7D-E, 9D).

Female: See WESOŁOWSKA & RUSSELL-SMITH, 2000: 96, f. 266–268.

Distribution – Known from Tanzania (Mkomazi Game Reserve – type locality) and Ghana (Banda-Nkwanta).

Material examined: Two males from Banda-Nkwanta, Ghana, 1–14.vii.1965, abandoned yams field, pitfall trap, ENDRÓDY-YOUNGA leg. (HNHM 397).

*

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