

## A new species of *Aelurillus* Simon, 1885 (Araneae: Salticidae) from Kenya

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### Abstract

A new species of *Aelurillus* Simon, 1885 from Kenya, *A. murphyorum* sp. n. (♂, Baringo County), is diagnosed, illustrated and described.

**Keywords:** Aranei • Afrotropical Region • jumping spiders • Madagascar  
• new species • sub-Saharan Africa.

### Introduction

Nine species of *Aelurillus* Simon, 1885 are known from sub-Saharan Africa (World Spider Catalog 2022). Three species were described at the end of the 19th and beginning of the 20th centuries: *A. catus* Simon, 1886, *A. rugatus* (Bösenberg & Lenz, 1895), and *A. cristatopalpus* Simon, 1902. The next species to be described, *A. subaffinis* Caporiacco, 1947, was 45 years later (Caporiacco 1947). The remaining five species were described in the 21st century: *A. madagascariensis* Azarkina, 2009, *A. minutus* Azarkina, 2002, *A. mirabilis* Wesołowska, 2006, *A. russellsmithi* Azarkina, 2009, and *A. tumidulus* Wesołowska & Tomasiewicz, 2008 (see Table 1 for their distribution). Two of these species, *A. cristatopalpus* Simon, 1902 and *A. subaffinis* Caporiacco, 1947, were re-examined and re-described (see Clark 1974 and Szűts & Azarkina 2002 respectively). *Aelurillus murphyorum* sp. n. will raise the count of sub-Saharan *Aelurillus* species to ten.

The aim of this paper is to describe a new species of *Aelurillus* from Kenya.

### Material and methods

The specimen studied in the present paper is deposited in the Manchester Museum, the University of Manchester, UK (MMUE, curator: D. V. Logunov). The specimen was studied in 70% ethanol and the description of its colouration refers to that of the preserved specimen. All drawings were made with the aid of a reticular eyepiece attached to a MBS-10 stereomicroscope in the Institute of Systematics and Ecology of Animals (ISEA, Novosibirsk, Russia). Photographs of the specimen were taken with a Canon EOS

550D camera attached to a Zeiss Stemi 2000-C stereomicroscope at the ISEA. When photos and drawings had been done, the male palp was deposited in a microvial and stored with the specimen. The drawings were edited in Adobe Photoshop CS5.

Abbreviations used in the text are as follows: AME = anterior median eyes, d = dorsal, E = embolus, ED = embolic division, Fm = femur, Mt = metatarsus, PLE = posterior lateral eyes, pr = prolateral, Pt = patella, rt = retrolateral, TA = terminal apophysis, Tb = tibia, v = ventral. The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus (total). All measurements are in millimetres (mm). For the leg spination the system adopted is that used by Ono (1988).

The distributional map was compiled using the online mapping software SimpleMappr (Shorthouse 2010).

### Salticidae Blackwall, 1841

### Salticinae Blackwall, 1841

### Tribe Aelurillini Simon, 1901

### Subtribe Aelurillina Simon, 1901

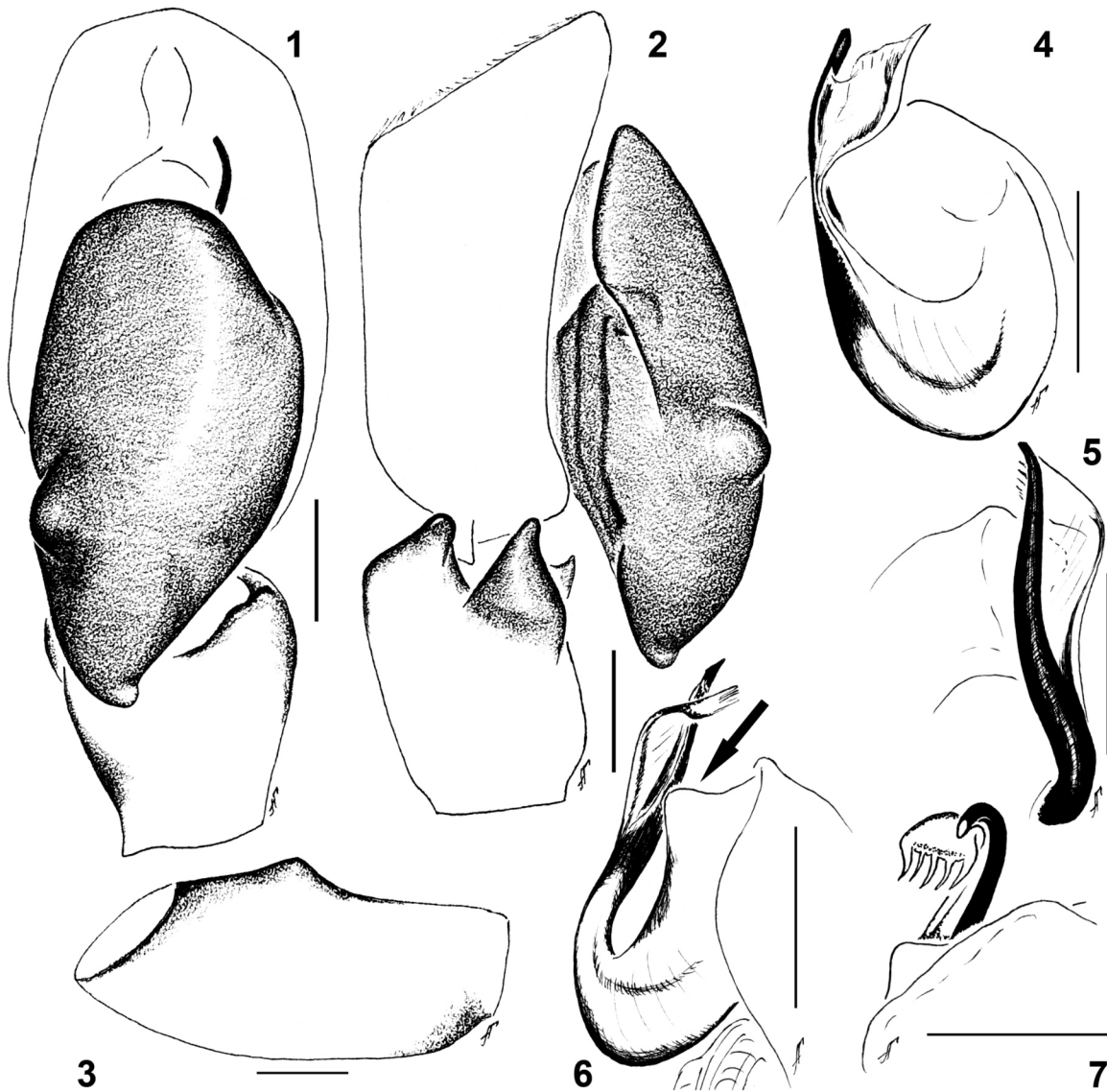
The genus *Aelurillus* contains 73 species, including two subspecies (World Spider Catalog 2022), of which 50 are known from both sexes, 13 from the males and 10 from the females. The *Aelurillus* species are confined to the Old World, distributed predominantly (61 species) in the Palaearctic Region. Yet, nine species occurs in the Afrotropics and three in the Oriental Region.

The genus *Aelurillus* differs from other Aelurillina genera in having the embolic division U-shaped and consisting of the embolus (E) and the terminal apophysis (TA) which are connected to each other by a membrane (Figs. 4–6 and Azarkina 2020: figs. 8–9) for males. The epigyne is always with epigynal wings and a pocket, with copulatory openings located in its anterior half (see Azarkina 2019: figs. 8, 35), or sometimes in its middle part in some members of the *luctuosus* species-group (see Azarkina 2002: figs. 26–27, 50, 93 and Azarkina 2006: fig. 38); accessory glands are strongly sclerotized and, in most cases, visible from dorsal view of the vulva (Azarkina 2020: figs. 1–3). The newly described species, *A. murphyorum* sp. n., fits well the diagnostic characters of *Aelurillus*.

### *Aelurillus murphyorum* sp. n. (Figs. 1–14)

**Type:** Holotype ♂ (MMUE, G7572.46), KENYA: Baringo County, Lake Baringo, c. 0°36'N 36°04'E, lakeside shrub, 1100 m, 28 August 1972, J. & F. Murphy.

**Etymology:** This new species is named after the late, notable British arachnologists John Alan Murphy (1922–2021) and his wife Frances Mary Murphy (1926–1995).



Figs. 1–7: Copulatory organs of the holotype male of *A. murphyorum* sp. n. **1** palp, ventral view; **2** same, retrolateral view; **3** palpal femur, retrolateral view; **4** embolic division, dorsal view; **5** same, prolateral view; **6** same, retrolateral view (arrow = apical bump near base of ED); **7** same, apical view. Scale bars = 0.1 mm.

**Diagnosis:** In the body colouration and conformation of the copulatory organs, *A. murphyorum* sp. n. is similar to all members of the *minimontanus* species-group, but differs from them in having three thin longitudinal stripes on the ocular area and dark brown tarsi with yellow longitudinal

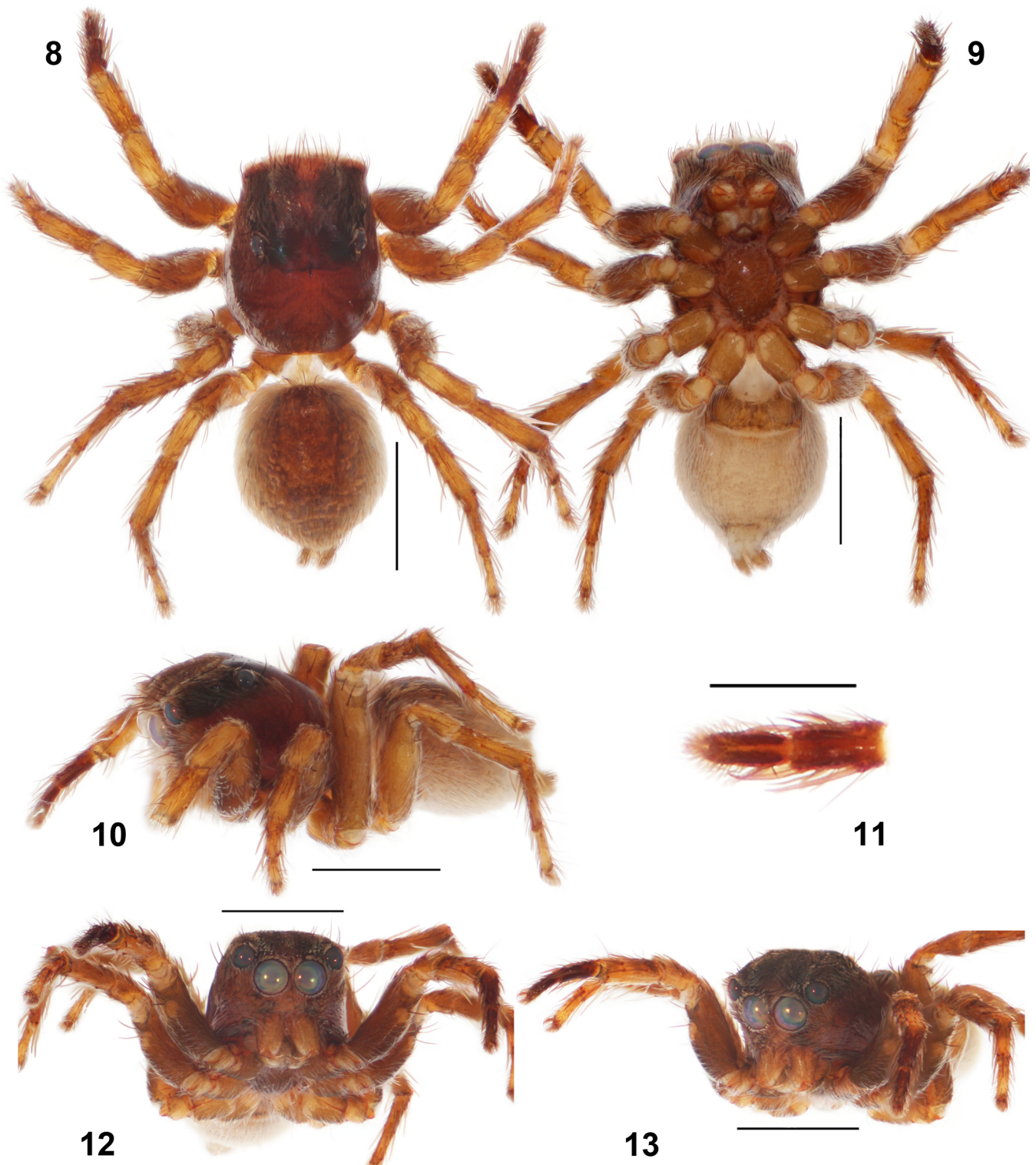
stripe ventrally (Figs. 8, 11–13). The embolic division differs from those of other related species in having an apical bump near the ED base (Fig. 6, arrowed).

**Distribution:** Only the type locality (Fig. 14).

**Description of holotype male:** Total length 3.05. Carapace 1.60 long, 1.20 wide, 0.90 high at PLE. Ocular area 0.70 long, 0.95 wide anteriorly and 0.90 wide posteriorly. Diameter of AME 0.30. Abdomen 1.45 long, 1.20 wide. Cheliceral length 0.40. Clypeal height 0.15. Length of leg segments: I 0.80 + 0.50 + 0.50 + 0.35 + 0.30 (2.45); II 0.75 + 0.40 + 0.40 + 0.30 + 0.30 (2.15); III 1.20 + 0.55 + 0.60 + 0.60 + 0.35 (3.30); IV 0.95 + 0.40 + 0.55 + 0.70 + 0.40 (3.00). Leg formula: III, IV, I, II. Leg spination: I: Fm d 0-1-1-4; Pt pr and rt 1; Tb d 1-0, pr 1-1-, rt 0-1, v 1-1-2ap; Mt pr and rt 1-1ap, v 2-2ap. II: Fm d 0-1-2-5; Pt pr and rt 1; Tb d 1-0, pr 1-1-1, rt 1-1, v -1-1-2ap; Mt pr and rt 1-1ap, v 2-2ap. III: Fm d 0-1-2-4; Pt pr and rt 1; Tb d 1-0-0, pr 1-1-1-1, rt 1-1-1, v 0-0-2ap; Mt d 1-0-0, pr and rt v 1-0-2ap, v 2-2ap. IV: Fm d 0-1-1-4; Pt pr and rt 1; Tb d 1-0-0, pr 1-1-1,

Species name	Sexes known	Distribution
<i>A. catus</i> Simon, 1886	♂	Senegal
<i>A. cristatopalpus</i> Simon, 1902	♂	South Africa
<i>A. madagascariensis</i> Azarkina, 2009	♂♀	Madagascar
<i>A. minutus</i> Azarkina, 2002	♂♀	Eritrea, Syria
<i>A. mirabilis</i> Wesolowska, 2006	♂♀	Namibia
<i>A. murphyorum</i> sp. n.	♂	Kenya
<i>A. rugatus</i> (Bösenberg & Lenz, 1895)	♀	Tanzania
<i>A. russellsmithi</i> Azarkina, 2009	♂♀	Ivory Coast
<i>A. subaffinis</i> Caporiacco, 1947	♀	Ethiopia
<i>A. tumidulus</i> Wesolowska & Tomasiewicz, 2008	♀	Ethiopia

Table 1: Species composition and distribution of *Aehurillus* Simon, 1885 in sub-Saharan Africa.



Figs. 8–13: *A. murphyorum* sp. n., holotype male. **8** habitus, dorsal view; **9** same, ventral view; **10** same, lateral view; **11** metatarsus and tarsus of leg I, ventral view; **12** habitus, frontal view; **13** same, latero-frontal view. Scale bars = 0.5 mm (11), 1 mm (8–10, 12–13).

rt 1-1-1-1, v 1-0-2ap; Mt d 1-1-0, pr 1-1-2ap, rt 1-0-2ap, v 1-1-2ap. Colouration (Figs. 8–13). Carapace brown, with dark brown ocular area, with broad white marginal stripes. Ocular area with two thin white transverse stripes running from first eye row to rear end of ocular area and fused together in third eye row; with thin short transverse white stripe medially. Sternum brown. Labium and endites yellow brown, pale apically. Clypeus, cheeks and chelicerae

yellow-brown, covered with sparse whitish setae. Abdomen yellow grey ventrally. Dorsum brown, with narrow scutum occupying half of abdominal length. Book-lung covers and spinnerets brownish yellow. Femora of all legs brown, remaining yellow. Metatarsi and tarsi of first legs brown, tarsi I with yellow longitudinal stripe ventrally (Fig. 11). Palpal structure as in Figs. 1–7: Femur, patella and tibia yellow-brown, covered with dense white setae prolaterally



Fig. 14: Type locality of *A. murphyorum* sp. n.

and dorsally. Cymbium yellow-brown, covered with brown setae. Femur with a prolatero-ventral bulge (Fig. 3). Tibia with three retrolateral apophyses (two sclerotized and one membranous)—ventral sclerotized apophysis triangle, pointed apically (Fig. 2); dorsal apophyses massive, with round tip, pointed ventrad (Fig. 2). Embolus and TA bent ventrad (Figs. 5–6). TA tip and membrane between TA and embolus with long teeth (Fig. 7).

Female unknown.

## Discussion

The modern centre of species diversity of *Aelurillus* lies in the Mediterranean and Middle Asia: 34 and 12 species correspondingly, with four of them as shared species (World Spider Catalog 2022; Metzner 2022). Sub-Saharan Africa contains nine species (Table 1).

Eight species-groups are considered within the genus *Aelurillus* (Azarkina 2006b). *A. murphyorum* sp. n. belongs to the *minimontanus* species-group (see Azarkina 2019: 410 for the *minimontanus* species-group definition). This is quite surprising because the three other species of this group, *A. afghanus* Azarkina, 2006, *A. minimontanus* Azarkina, 2002, and *A. thailandicus* Azarkina, 2019, are only known from Asia (Afghanistan, India, Pakistan and Thailand) (Azarkina 2019).

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