

Afroisometrus gen. n. from Zimbabwe (Scorpiones: Buthidae)

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Abstract. *Afroisometrus* gen. n. with the type species *Lychas minshullae* Fitzpatrick, 1994 is described. The new genus is related to the genus *Isometrus* Hemprich & Ehrenberg, 1828, from which it differs by the absence of a subaculear tubercle and the presence of three keels on the dorsal surface of the mesosoma. It differs from the genus *Lychas* C. L. Koch, 1845 in the absence of tibial spurs on the third and fourth legs.

Taxonomy, description, new genus, new combination, Scorpiones, Buthidae, *Afroisometrus* gen. n., *Lychas minshullae*, Afrotropical region

Afroisometrus gen. n.

(Figs 1–3, Table 1)

TYPE SPECIES. *Lychas minshullae* Fitzpatrick, 1994.

ETYMOLOGY. Denotes affinity to the genus *Isometrus* and the geographic distribution.

DESCRIPTION. A combination of characters differentiates this genus from all other genera of the family Buthidae. The basic trichobothrial pattern is beta (Fitzpatrick 1994: 25, fig. 6 and Sissom 1990: 70, fig. 3.3), the third and fourth legs are without tibial spurs (Sissom 1990: 74, fig. 3.8A), the sternum is subtriangular (Fitzpatrick 1994: 24, fig. 2), and tibia and tarsomeres of the first through third legs bear setae which are not arranged into a bristlecomb.

This complex of characters is exhibited by the genus *Isometrus* Hemprich & Ehrenberg, 1828, but *Afroisometrus* gen. n. has three keels on the dorsal surface of the third through sixth mesosomal segments, lacks a subaculear tooth, and has 12 pectinal teeth.

The first and second metasomal segments bear 10 keels, the third and fourth segments bear 8 keels, and the fifth segment lacks keels. Other characters are given in the description of *Afroisometrus minshullae* (Fitzpatrick, 1994) below.

AFFINITIES. Differentiation from the genus *Isometrus* and inclusion in the Sissom's (1990: 96) key of genera of the family Buthidae is as follows:

Tibia and tarsomeres of legs I – III with setae not arranged into a bristlecomb:

- Subaculear tooth present, mesosoma with one keel. *Isometrus*
- Subaculear tooth absent, mesosoma with three keels. *Afroisometrus* gen. n.

Afroisometrus minshullae (Fitzpatrick, 1994) comb. n.

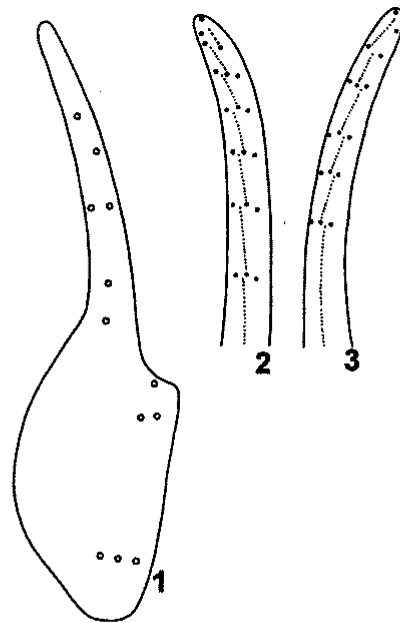
(Figs 1–3, Table 1)

Lychas minshullae Fitzpatrick, 1994: 24–25.

MATERIAL. Holotype – a female preserved in alcohol, labelled: Zimbabwe, Doddieburn Headquarters, Doddieburn Ranch (Z129A4), 18.XII.1985, leg. J. Minshull, deposited in the Natural History Museum, Bulawayo, Zimbabwe, No. NMZ/86/48.

Table 1. Measurements in millimeters of holotype of *Afroisometrus minshullae* (Fitzpatrick) comb. n.. Line denoted „pectinal teeth“ contains numbers of both left and right teeth separated by a colon.

		<i>Afroisometrus minshullae</i> (Fitzpatrick, 1994) comb. n. holotype
Total length		27.3
Carapace	length	2.8
	width	2.6
Metasoma segment I	length	15.1
	width	1.6
segment II	length	1.5
	width	2.1
segment III	length	1.4
	width	2.2
segment IV	length	1.3
	width	2.7
segment V	length	1.3
	width	3.2
telson	length	1.3
	width	3.0
Pedipalp femur	length	2.4
	width	0.9
patella	length	3.0
	width	1.2
tibia	length	5.0
manus	width	1.1
movable finger length		3.0
Pectinal teeth		12:12



Figs 1–3. *Afroisometrus minshullae* (Fitzpatrick) comb. n., holotype. Fig. 1. tibia of pedipalp, Fig. 2. movable finger, Fig. 3. fixed finger.

DESCRIPTION. The length of the holotype is 27.3 mm. Measurements of the carapace, telson, segments of the metasoma and of the pedipalps, and numbers of pectinal teeth are given in Tab. 1. For the position and distribution of trichobothria on the pedipalps see Fig. 1 and Fitzpatrick 1994: 25, figs 4–8. Cutting edges of movable and fixed fingers are shown in Figs 2–3. Other characters are given in the diagnosis of *Afroisometrus* gen. n. and the description of *Afroisometrus minshullae* (Fitzpatrick 1994: 23–28) above.

DISCUSSION

Fitzpatrick placed *Afroisometrus minshullae* in the genus *Lychas* but noted certain differences. He stated that *Lychas minshullae* has tibial spurs on the third and fourth legs, but the female holotype examined by me lacks any such spurs. This important character indicates a relationship closer to *Isometrus* than to *Lychas*. However, the differences between *Afroisometrus minshullae* and *Isometrus* are profound enough to warrant erection of *Afroisometrus* gen. n..

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