

Leiurus nasheri sp. nov. from Yemen (Scorpiones, Buthidae)

František KOVAŘÍK

P. O. Box 27, CZ–145 01 Praha 45, Czech Republic

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Abstract. *Leiurus nasheri* sp. nov. is described and compared with other species of the genus. The base colour is yellowish grey with black spots. Trichobothrium *db* on the fixed finger of pedipalp is located between trichobothria *est* and *esb* (other species of the genus have *db* located between *est* and *et*). The first and second tarsomeres bear long paired ventral setae (in other species of the genus the tarsomeres bear paired ventral spines, which are usually short).

Taxonomy, new species Scorpiones, Buthidae, *Leiurus*, Afrotropical region

Leiurus nasheri sp. nov.

(Figs 1–8, Table 1)

TYPE LOCALITY AND TYPE DEPOSITORY. Yemen, Al Hudaydah gov., 10 km W Al Mansuriah, 14°43'N, 43°12'E, 110 m; the author's collection (FKCP) and University of Sana'a collection.

TYPE MATERIAL. Yemen, Al Hudaydah gov., 10 km W Al Mansuriah, 14°43'N, 43°12'E, 110 m, 8. IV. 2007, 5♀ (holotype and paratypes preserved in 75% alcohol), leg. P. Kabátek and D. Král. Holotype and three paratypes are in author's collection (FKCP), one paratype in the University of Sana'a collection.

ETYMOLOGY. Patronymic; named after Professor Abdul Karim Nasher (University of Sana'a, Yemen).

DIAGNOSIS. Total length 60–72 mm. Base colour yellowish grey with black spots. Trichobothrium *db* on fixed finger of pedipalp located between trichobothria *est* and *esb*. Trichobothrium *esb* smaller than *eb*. Movable fingers of pedipalps with four terminal granules, bear 11 or 12 rows of granules with external and internal granules present at all rows. First and second tarsomeres with long paired ventral setae. Tarsi of first to third legs with bristlecombs. Pectinal teeth number 25–28.

DESCRIPTION OF HOLOTYPE. The holotype is an adult female 72 mm long. Measurements of the carapace, telson, segments of the metasoma and segments of the pedipalps, and numbers of pectinal teeth are given in Table 1.

Coloration. The base colour is yellowish grey with black spots (see Figs 1–2).

Carapace and Mesosoma. The anterior margin of the carapace is nearly straight. All carinae on the carapace are strong, granulose; centrolateral and posteriomedian carinae are fused to form a lyre-shaped row of granules (Fig. 7). Tergites I and II bear five strong, granulose carinae. Tergites III to VI bear three strong, granulose carinae. Lateral surfaces are moderately and irregularly granulate. Tergite VII is pentacarinata. Sternite III bears two weak, smooth carinae. Sternites IV to VI bear four smooth carinae. Sternite VII bears four finely granulate carinae.

Metasoma and telson. All segments are longer than wide. The first segment has a total of 10 carinae, the second through fourth segments have eight carinae, and the fifth segment has five carinae. Intermediate carinae of the second segment are replaced by less than 10 small and isolated granules situated mainly in the posterior half; the third segment bears only two or three posteriorly situated

Table 1. Measurements (in millimetres) of female holotype of *Leiurus nasheri* sp. nov.

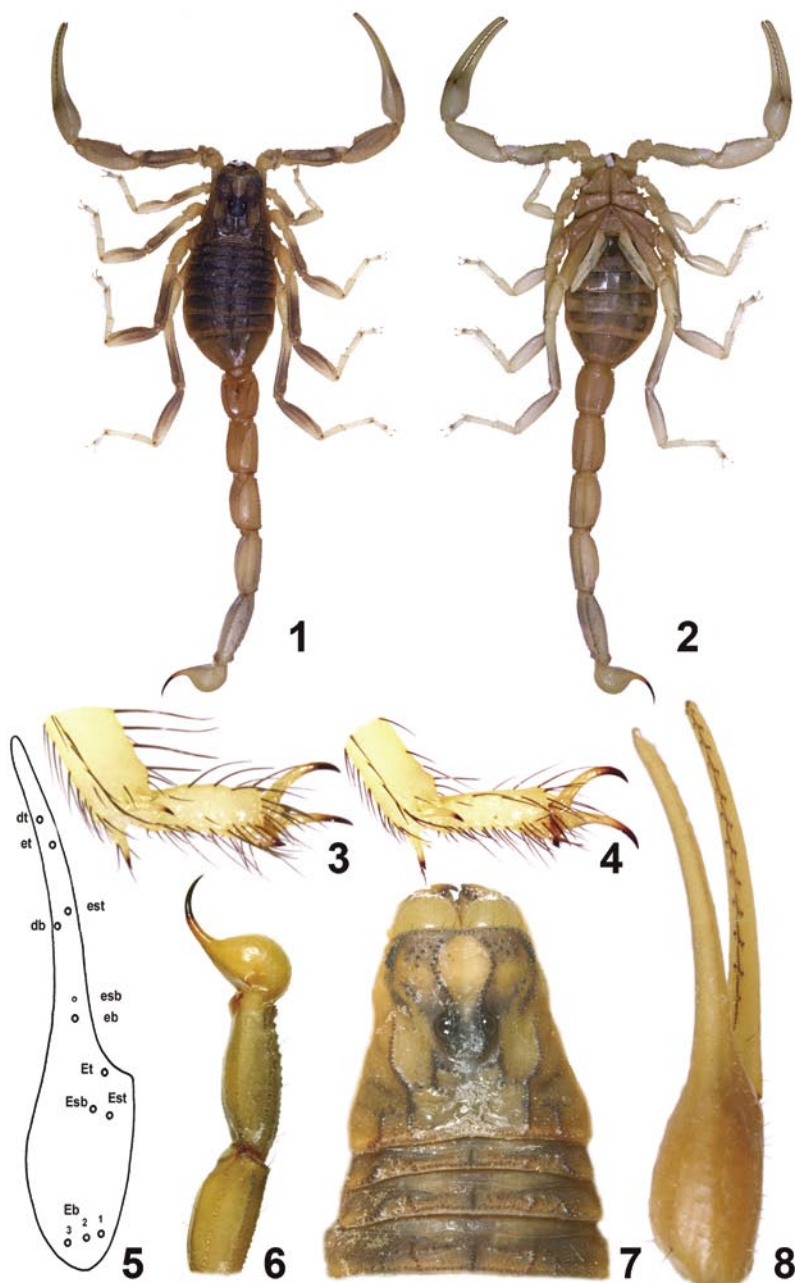
total	length	72.0
carapace	length	8.0
	width	9.1
metasoma and telson	length	41.5
segment I	length	5.3
	width	4.4
segment II	length	6.3
	width	3.8
segment III	length	6.4
	width	3.8
segment IV	length	7.3
	width	3.4
segment V	length	8.2
	width	3.4
telson	length	8.0
	pedipalp femur	length
patella	width	2.1
	length	8.1
tibia	width	2.8
	length	13.5
finger movable	width	2.8
	length	9.4
pectinal teeth		27:27

granules; and the fourth segment has the lateral surface smooth, entirely devoid of granules. Only the ventral carinae, mainly in the posterior part of the fifth segment, is composed of irregularly shape the granules. The segments bear only a few bristles. The telson lacks a subaculear tubercle; the aculeus is sharply curved and shorter than the vesicle; the vesicle is globose, with the ventral surface smooth to irregularly finely granular, shiny, and sparsely setose (Fig. 6).

PEDIPALPS. The trichobothrial pattern is of Type A, orthobothriotaxic. Dorsal trichobothria of the femur are arranged in beta-configuration with d_2 situated on the dorsal surface. Trichobothrium *db* on the fixed finger of pedipalp is located between trichobothria *est* and *esb*. Trichobothrium *eb* is clearly on the fixed finger of pedipalp. Trichobothrium *esb* is smaller than *eb*. For the position and distribution of trichobothria on the tibia of pedipalp see Fig. 5. Dorsointernal, dorsoexternal and ventrointernal carinae of the femur are strong, granulose. The ventroexternal carina bears a few coarse granules. The surfaces are smooth to shagreened. The patella has dorsal carinae moderate, usually granulate, and the ventral carinae weak to moderate, irregularly granulate. The chela has smooth, weak carinae which are barely detectable. The movable fingers of pedipalps have four terminal granules and bear 11 or 12 rows of granules with external and internal granules present at all rows (Fig. 8).

LEGS. The third and fourth legs bear well developed tibial spurs, the first and second tarsomeres bear long paired ventral setae (Figs 3 and 4). Tarsi of the first to third legs bear bristlecombs.

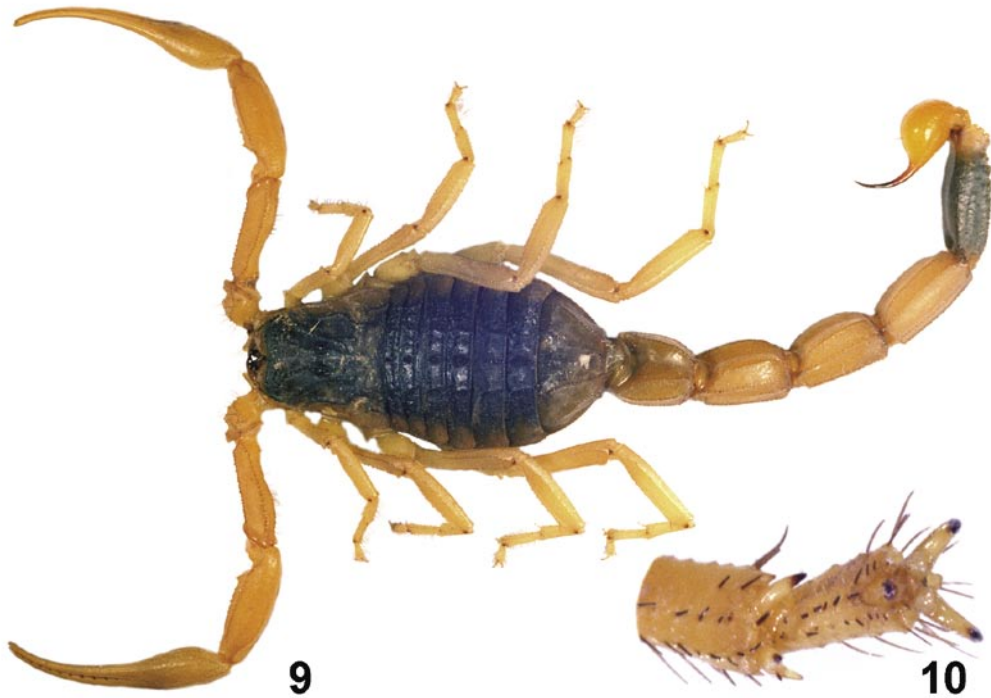
VARIATION. Differences between the holotype and paratypes appear in the above diagnosis. Discernible variation includes size (total length 60–72 mm), number of pectinal teeth (25–28), number



Figs 1–8. *Leirus nasheri* sp. nov., 1 – female paratype, dorsal aspect; 2 – female paratype, ventral aspect, 3 – female holotype, tarsomeres of third leg, 4 – female holotype, tarsomeres of fourth leg; 5 – female holotype, tibia of pedipalp, 6 – female holotype, telson, fifth, and fourth metasomal segment, 7 – female holotype, chelicerae, carapace and first to third mesosomal tergites, 8 – female paratype, chela of pedipalp.

of cutting rows of granules on the movable fingers of pedipalps (11 or 12) and number of smooth carinae on sternites IV to VI (two or four).

AFFINITIES. The only species of *Leiurus* Ehrenberg, 1828 hitherto recorded from Yemen is *L. quinquestriatus* Ehrenberg, 1828 (Fig. 9), which differs from *Leiurus nasheri* sp. nov. in having pairs of short spines on the ventral side of the first and second tarsomeres (Fig. 10). This character has so far been considered generic, because it is present in all three previously described species. In some populations from Egypt and Israel some of the spines may be longer, but long setae such as in *Leiurus nasheri* sp. nov. (Figs 3 and 4) are never present. Another difference is the position of trichobothrium *db* on the fixed finger of pedipalp, which in *Leiurus nasheri* sp. nov. is between the trichobothria *est* and *esb* (Fig. 5) whereas in *L. quinquestriatus* it is between *est* and *et* (fig. 19e in Hendrixson, 2006: 89). *L. jordanensis* Lourenço, Qi et Cloudsley-Thompson, 2006 from Jordan and Saudi Arabia (fig. 17d in Hendrixson 2006: 83) and *L. savanicola* Lourenço, Qi et Cloudsley-Thompson, 2006 from Cameroon (fig. 11 in Lourenço et al. 2006: 99) have the trichobothrium *db* in the same position as *L. quinquestriatus*. Coloration could also possibly differ, but I suspect



Figs 9–10. *Leiurus quinquestriatus* Ehrenberg, 1828, female from Yemen, Jabal Lawz SE Sana'a, 15° 23' N, 44° 29' E, 2828 m, leg. P. Kabátek, FKCP, 9 – dorsal aspect; 10 – tarsomeres of fourth leg.

it varies according to the colour and texture of the substrate (see Hendrixson, 2006: 84), as is the case in the genus *Hottentotta* Birula, 1908 (Kovařík 2007: 86, 94). It is thus possible that further work will show *Leiurus quinquestriatus*, *L. jordanensis* and *L. savanicola* to be conspecific.

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