

A new species of
Compsobuthus Vachon, 1949 from Mali
(Scorpiones, Buthidae)

Uma nova espécie de
Compsobuthus Vachon, 1949 do Mali
(Scorpiones, Buthidae)

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As noted in a recent paper (LOURENÇO, 2009), a series of studies on the African species of the genus *Compsobuthus* Vachon have been started, with the aim of bring a better clarification to this complex group of scorpions.

Compsobuthus weneri (Birula), a 'key species' in the genus, was originally described from Nubia (now Sudan) and subsequently recorded from quite many regions both in Africa and Middle East.

Studies in preparation (Lourenço unpublished) attest, however, that the distribution of *C. weneri* is limited to Sudan (Nubia), Egypt and parts of Sinai. The records of this species in Western Africa, and Middle East, are clearly due to misidentifications. This is particularly true for the elements distributed in Mali, first recorded by VACHON (1940) as *C. acutecarinatus* Simon and subsequently as *C. weneri* (Vachon, 1950, 1952). Re-examination of part of the material studied by VACHON (1952) led to the description of a new species distributed in Mali. The single re-

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examined specimen from Air in Niger is very poorly preserved and incomplete (VACHON, 1950), consequently any decision concerning its taxonomic status is postponed. The population from South of Algeria - Tassili des Ajjer- (VACHON, 1958) will be the subject of another paper (in preparation).

METHODS

Illustrations and measurements were produced using a Wild M5 stereomicroscope with a drawing tube (camera lucida) and an ocular micrometer. Measurements follow STAHNKE (1970) and are given in mm. Trichobothrial notations follow VACHON (1974) and morphological terminology mostly follows VACHON (1952) and HJELLE (1990).

TAXONOMIC TREATMENT

Family Buthidae C. L. Koch, 1837
Genus *Compsobuthus* Vachon, 1949

Compsobuthus tombouctou sp. n.

(Figs. 1-8)

DIAGNOSIS — Medium sized scorpions, 30 to 36 mm in total length (excluding telson). General coloration yellowish to pale yellow; eyes surrounded by black pigment. Carinae on carapace and tergites strongly developed, specially in male; granulations moderately marked. Sternites weakly granular to smooth. Pectines long; pectinal tooth count 21 in males, 17/18 in females. Metasomal segments I-V with 10-10-8-8-5 carinae; dorsal surface of segments granulated; better marked on segments IV-V. Telson smooth; aculeus shorter than vesicle; subaculear tubercle absent. Trichobothrial pattern orthobothriotaxic, type A- β . Femur and patella with moderately marked carinae. Chela with moderately elongated fingers. Dentate margins on fixed and movable fingers composed of 9/10 almost linear rows of granules; inner and outer accessory granules weakly marked to inconspicuous.

RELATIONSHIPS — The new species shows affinities with *C. weneri*, however can be distinguished from this last species by the following characters: (i) a bigger overall size, (ii) inner and outer accessory granules of chela fingers weakly marked to inconspicuous, (iii) carinae of carapace and tergites strongly marked, (iv) dorsal surface of metasomal segments moderately to strongly granulated.

Description based on female holotype and male paratype (measurements in Table 1).

Coloration. Generally yellowish to pale yellow; eyes surrounded by black pigment. Vesicle yellowish; aculeus yellowish at the base and reddish at the tip. Chelicerae yellowish, with dark reddish teeth. Pedipalps yellowish overall; rows of granules on the dentate margins of the fingers reddish. Legs and venter pale yellow.

Morphology. Prosoma: Anterior margin of carapace weakly emarginate. Carapace carinae strongly developed; anterior median, central median, posterior median and central lateral carinae strongly marked; posterior median carinae terminating distally in a small spinoid process that extends beyond the posterior margin of the carapace. Intercarinal spaces moderately granular; almost smooth centrally. Median ocular tubercle anterior to the centre of the carapace; median eyes separated by more than one ocular diameter. Three pairs of lateral eyes. Mesosoma: Tergites I-VI tricarinate. Lateral carinae on I-VI strongly marked; each carina terminating distally with a spinoid process that extends strongly beyond the posterior margin of tergite. Median carinae on I moderate; on II-VI strong, crenulate; terminating distally on each segment with a spinoid process that extends slightly beyond the posterior margin of the tergite. Tergite VII pentacarinate, with lateral pairs of carinae strong; median carinae present on proximal one-half, moderate. Intercarinal spaces moderately to weakly granular. Sternites: Lateral carinae absent from sternites III-V; weak to vestigial on VI; moderate, finely crenulate on VII. Submedian carinae absent from all sternites. Pectines long; pectinal tooth count 18-18 (21-21) in female holotype and male paratype. Metasoma: Segments I-II with ten carinae, crenulate; III-IV with eight carinae. Segment V with five carinae; ventromedian carinae moderate to weak. Dorsal furrows of all segments weakly developed and moderately to strongly granulated; intercarinal spaces moderately to weakly granular. Telson smooth; subaculear tubercle absent. Chelicerae: With two denticles at the base of the movable finger, not fused (VACHON, 1963). Pedipalps: Trichobothrial pattern orthobothriotaxic, type A (VACHON, 1974); dorsal trichobothria of femur in β configuration (VACHON, 1975). Femur pentacarinate; all carinae moderately crenulate. Patella with eight carinae; all carinae moderately marked; dorsointernal carinae with one spinoid granule. Chela moderately slender, with weakly elongated fingers; all carinae weakly marked. Dentate margins on fixed and movable fingers composed of 9/10 almost linear rows of granules; inner and outer accessory granules weakly marked to inconspicuous. Legs: Ventral aspect of tarsi

with two rows of setae. Tibial spurs present on legs III and IV, moderate. Pedal spurs present, moderate on all legs.

Table 1. Morphometric values (in mm) of *Compsobuthus weneri*, male topotype and *Compsobuthus tombouctou* sp. n., male paratype and female holotype.

	<i>C. weneri</i>	<i>C. tombouctou</i> sp. n.	
	Male	Male	Female
<i>Total length</i>	24.0 *	30.3 *	36.3 *
Carapace:			
- length	3.1	4.1	4.7
- anterior width	1.9	2.5	2.9
- posterior width	3.1	4.2	5.2
Metasomal segment I:			
- length	2.0	2.8	2.9
- width	1.8	2.5	2.6
Metasomal segment V:			
- length	3.5	4.5	4.9
- width	1.5	1.8	1.9
- depth	1.5	1.8	2.0
Vesicle:			
- width	1.1	1.6	1.5
- depth	1.2	1.4	1.5
Pedipalp:			
- Femur length	2.6	3.7	4.1
- Femur width	0.8	1.2	1.3
- Patella length	3.4	4.3	4.9
- Patella width	1.3	1.8	1.9
- Chela length	5.6	7.0	7.9
- Chela width	1.1	1.8	1.6
- Chela depth	1.2	1.8	1.6
Movable finger:			
- length	3.9	4.5	5.5

* excluding telson length

TYPE MATERIAL — Mali, Tombouctou, 1938 (J. Millot), 1 female holotype, 1 male paratype, MNHN-RS-1852; Sanga (Sangha), 1 female paratype, 1 male paratype, 1938 (J. Millot), MNHN-RS-1850, 1855.

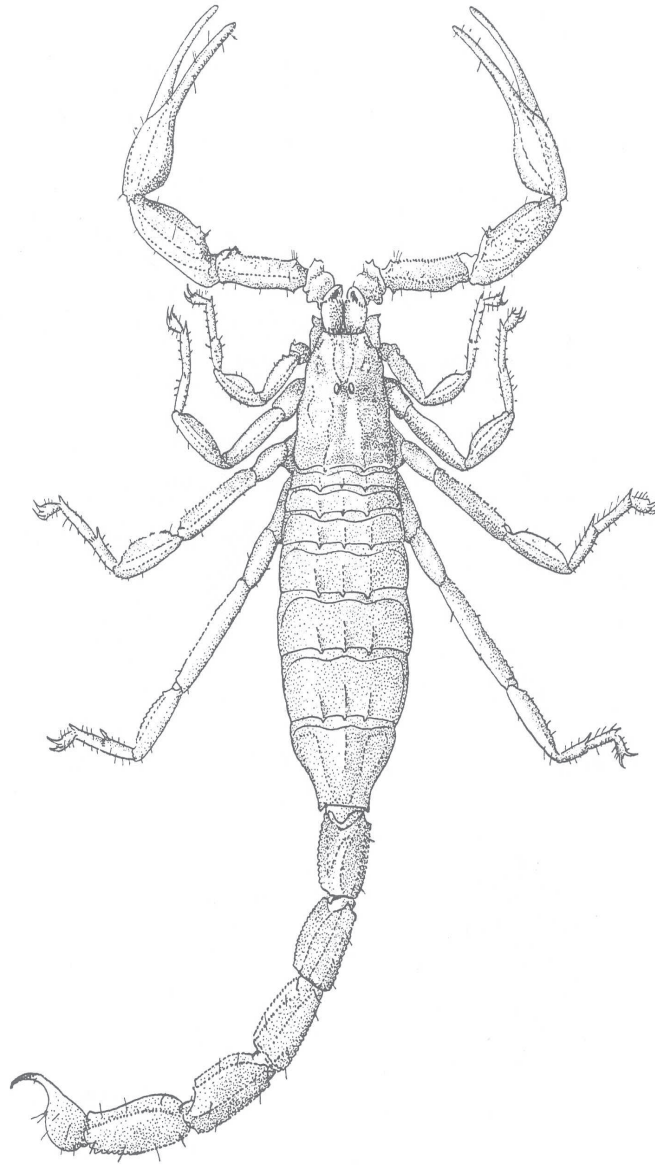
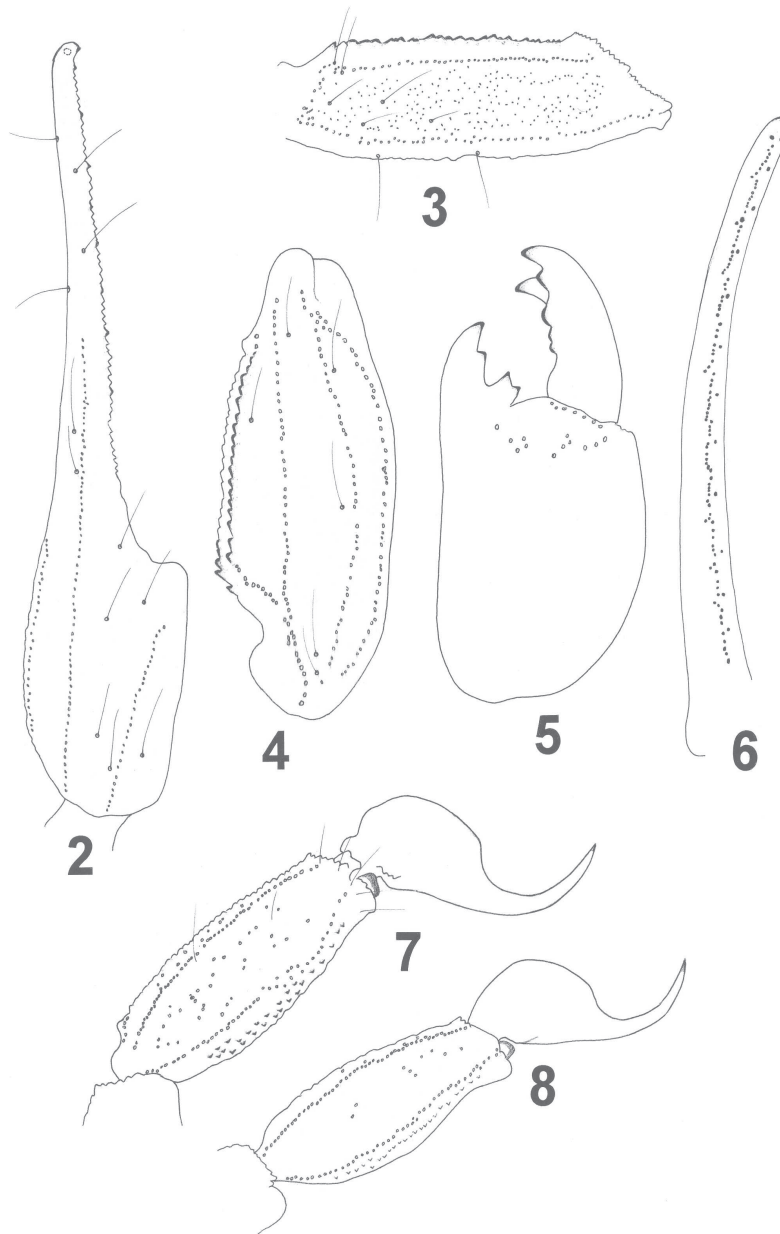


Fig. 1. *Compsobuthus tombouctou* sp. n. Female holotype from Tombouctou. Habitus (from VACHON, 1952).



Figs. 2-8. *Compsobuthus tombouctou* sp. n. 2-7, female holotype; 8, male paratype. 2-4, trichobothrial pattern; 2, chela, dorso-external aspect; 3, femur, dorsal aspect; 4, patella, dorsal aspect; 5, chelicera, dorsal aspect; 6, disposition of the granulations over the dentate margins of pedipalp-chela movable finger; 7-8, metasomal segment V and telson, lateral aspect. 7, female holotype; and 8, male paratype.

ETYMOLOGY — The specific name is placed in apposition to the generic name and refers to Tombouctou, the location in which the new species was collected.

ACKNOWLEDGEMENTS — I am most grateful to Prof. John L. Cloudsley-Thompson, London, and two anonymous readers for their useful comments to the manuscript.

SUMMARY

The *Compsobuthus* (Scorpiones, Buthidae) population previously recorded from Mali, and successively identified by Vachon as *Compsobuthus acutecarinatus* (Simon) and *Compsobuthus weneri* (Birula) is now confirmed as a new species from Western Africa.

KEY-WORDS: Scorpion, Buthidae, *Compsobuthus*, new species, Mali.

RÉSUMÉ

La population des *Compsobuthus* (Scorpiones, Buthidae) préalablement citée pour le Mali, et successivement identifié par Vachon comme *Compsobuthus acutecarinatus* (Simon) et *Compsobuthus weneri* (Birula) est à présent confirmée comme une espèce nouvelle pour l'Afrique occidentale.

MOTS-CLÉS: Scorpion, Buthidae, *Compsobuthus*, nouvelle espèce, Mali.

RESUMO

A população dos *Compsobuthus* (Scorpiones, Buthidae), previamente citada para o Mali, et sucessivamente identificada por Vachon como *Compsobuthus acutecarinatus* (Simon) et *Compsobuthus weneri* (Birula) é confirmada neste trabalho como uma espécie nova para a África ocidental.

PALAVRAS-CHAVE: Escorpião, Buthidae, *Compsobuthus*, espécie nova, Mali.

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