

## A new species of *Compsobuthus* Vachon, 1949 from Afghanistan (Scorpiones, Buthidae)

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(With 8 figures)

### Abstract

A new species of buthid scorpion from Afghanistan belonging to the genus *Compsobuthus* Vachon, 1949 (*C. tofti* sp. n.) is described on the basis of one specimen collected at S of Kunduz (Qonduz), NE of Pul-i-Khumri (Pol-e-Khomri), eastern region of Afghanistan. From the absence of outer denticles on the movable finger of the pedipalps, the new species can be placed in the *acutecarinatus*-group.

### Introduction

In some recent papers dealing with the genus *Compsobuthus* Vachon, 1949 (Lourenço 1999, in press), I discussed the fact that most authors agree that the taxonomy of this genus remains confused and poorly studied (Sissom 1994, Fet & Lowe 2000), even though the status of some species has been clarified in recent contributions (Sissom 1994, Sissom & Fet 1998, Lourenço & Monod 1998). Moreover, little by little, more new species are discovered and described, and the composition and distribution of the genus *Compsobuthus* becomes better known.

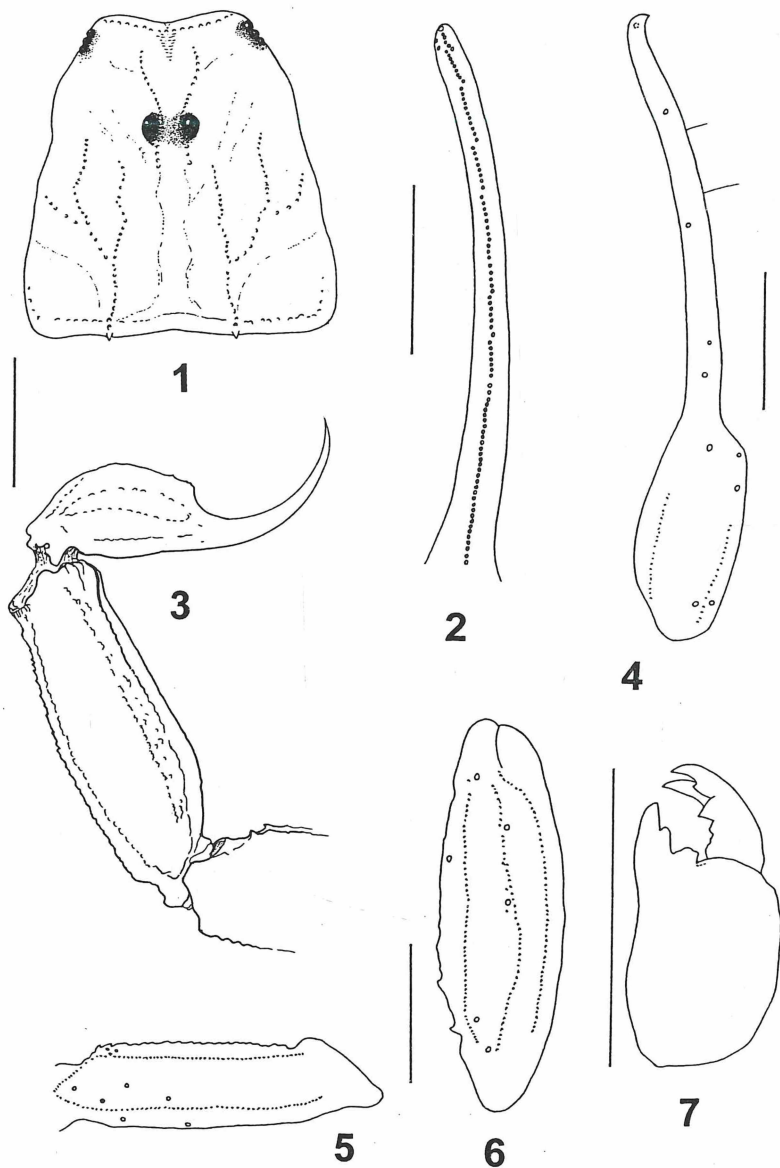
The examination of some scorpions collected in Afghanistan revealed a further new species belonging to *Compsobuthus*. This taxon is described in the present paper.

*Compsobuthus tofti* sp. n.

(Figs 1-7)

TYPE MATERIAL: Holotype, male. Afghanistan, eastern region of the country, S of Kunduz (Qonduz), NE of Pul-i-Khumri (Pol-e-Khomri), 7 April 1972, coll. C. Naumann. Deposited in the Zoologisches Museum Hamburg (ZMH Acc. No A 48/01).

ETYMOLOGY: Patronym in honor of my colleague Dr. Soren Toft, Aarhus University (Denmark).



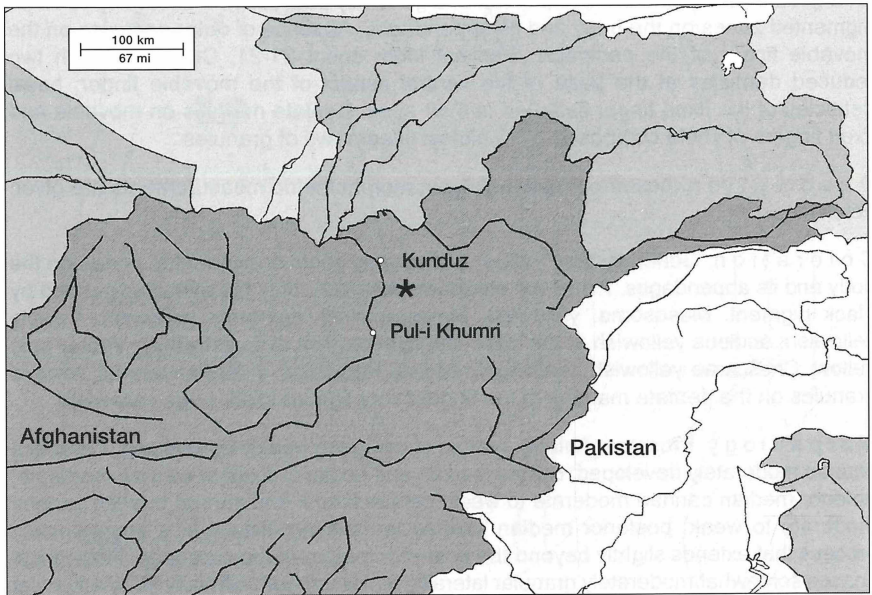
**Figs 1-8.** *Compsobuthus tofti* sp. n., holotype ♂: 1 - carapace; 2 - position on the granulations over the dentate margins of pedipalp-chela movable finger; 3 - metasomal segment V and telson, lateral aspect; 4-6 (trichobothrial pattern): 4 - chela, dorso-external aspect; 5 - femur, dorsal aspect; 6 - tibia, dorsal aspect; 7 - chelicera (all scale bars = 1 mm).

**D i a g n o s i s.** Small sized scorpions with a generally pale yellow without any spots or pigmented zones on the body and its appendages. Absence of outer denticles on the movable finger of the pedipalps. Pectinal tooth count 21-21. Chelicerae with two reduced denticles at the base of the ventral aspect of the movable finger; basal denticles of the fixed finger flattened in their apex. Dentate margins on movable and fixed fingers of chela composed of 10 almost linear rows of granules.

**D e s c r i p t i o n** (based on male holotype; morphometric measurements are given below).

**C o l o r a t i o n.** Generally pale yellow, without any spots or pigmented zones on the body and its appendages. Prosoma: carapace yellowish; only the eyes surrounded by black pigment. Mesosoma: yellowish. Metasoma: all segments yellowish. Vesicle yellowish; aculeus yellowish at the base and light reddish at its extremity. Venter pale yellow. Chelicerae yellowish; teeth light reddish. Pedipalps: yellowish overall; rows of granules on the dentate margins of the fingers very light reddish. Legs yellowish.

**M o r p h o l o g y.** Prosoma: Anterior margin of carapace weakly emarginate. Carapace carinae moderately developed; central median and posterior median carinae moderate; anterior median carinae moderate to weak; central lateral and central median carinae moderate to weak; posterior median carinae terminating distally in a small spinoid process that extends slightly beyond the posterior margin of the carapace. Intercarinal spaces somewhat moderately granular laterally; almost smooth centrally. Median ocular tubercle only slightly anterior to the center of the carapace; median eyes separated by one ocular diameter. Three pairs of lateral eyes. Mesosoma: Tergites I-VI tricarinate. Lateral carinae on I-VI moderate to strong, granular; each carina terminating distally with a spinoid process that extends slightly beyond the posterior margin of tergite. Median carinae on I weak; on II-VI moderate, 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 moderate to strong; median carinae present on proximal one-half, moderate. Intercarinal spaces weakly granular, almost smooth. Sternites: Lateral carinae absent from sternite III; weak on sternites IV-V; moderate, finely crenulate on VII. Submedian carinae absent on sternites III-VI; on VII moderate. Pectines moderately long; pectinal tooth count 21-21. Metasoma: Segments I-II with 10 keels, crenulate; III-IV with 8 keels. Dorsolateral carinae moderate to strong, terminating distally by a few slightly spinoid denticles, especially on III-IV. Ventral submedian carinae moderate on segments I-IV. Segment V with 5 keels; ventromedian carinae moderate. Dorsal furrows of all segments moderately developed, smooth; intercarinal spaces moderately to weakly granular. Telson weakly granular with only a few granules ventrally. Subaculear tubercle very weak, inconspicuous. Chelicerae: With two very reduced denticles at the base of the ventral aspect of the movable finger; basal denticles of the fixed finger flattened in their apex (Vachon 1963). Pedipalps: Trichobothrial pattern orthobothriotaxic, type A (Vachon 1974); dorsal trichobothria of femur in *beta* configuration (Vachon 1975). Femur pentacarinate; all carinae moderately crenulate. Tibia with 8 keels; all carinae weak to moderate; dorsointernal carinae with slightly spinoid granules. Chelae slender, with elongated fingers; all carinae weakly granular. Dentate margins on movable and fixed fingers composed of 10 almost linear rows of granules. Legs: Ventral aspect of tarsi with two rows of setae. Tibial spurs present on leg IV but reduced; absent from leg III. Pedal spurs present, moderate on all legs.



**Fig. 8.** Type locality of *Compsobuthus tofti* sp. n.

**R e m a r k s:** Within the genus *Compsobuthus*, the new species is allied to *Compsobuthus rugosulus* (Pocock, 1900). It can, however, be distinguished from the latter by the following characters: (A) absence of outer denticles on the movable finger of the pedipalps; (B) pectinal tooth counts in the new species show a superior number of teeth than found in the specimens of *C. rugosulus* (see Lourenço & Monod 1998).

**M e a s u r e m e n t s** (in mm): Total length 17.6. Carapace: length 2.4, anterior width 1.4, posterior width 2.4; Metasomal segment I: length 1.5, width 1.3; Metasomal segment V: length 2.6, width 0.9, depth 0.9; Vesicle: width 0.8, depth 0.7; Pedipalp: Femur length 2.2, femur width 0.7, tibia length 2.8, tibia width 0.9, chela length 4.7, chela width 0.8, chela depth 0.6; Movable finger: length 3.3.

### A c k n o w l e d g e m e n t s

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