

Another new species of *Tityobuthus* from Madagascar (Scorpiones, Buthidae)

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(With 8 figures)

Abstract

Tityobuthus dastychi sp. n. (Scorpiones, Buthidae) is described based on two specimens (male and female), collected in Ampijoroa, NW Madagascar, and it is the tenth species described in the genus. Some comments concerning the taxonomic position of the new species are included.

Introduction

When Vachon (1979) published his analysis of the genus *Tityobuthus*, only two species were regarded as valid: *Tityobuthus baroni* (Pocock, 1890) and *Tityobuthus gracilis* (Fage, 1946). The situation remained unchanged until the publication of a paper by Lourenço (1995) in which two new species were added to the genus *Tityobuthus*: *Tityobuthus guillaumeti* and *Tityobuthus pococki*. In two recent publications (Lourenço 1996a, b) two more species were described, *Tityobuthus lucileae*, and *Tityobuthus copalensis*, the last being a pre-fossil scorpion. Finally, in a monograph on the scorpion fauna of Madagascar (Lourenço 1996c), three more species were described. As suggested (Lourenço 1996a, c), the increasing number of new taxa suggests that the genus *Tityobuthus*, which can be included among the micro-scorpion genera, may be very rich in species. A similar phenomenon has already been observed in other micro-scorpion genera such as *Ananteris* Thorell, in which the number of new species increased from 3 to 19 in the space of only twelve years (Lourenço 1993, 1994).

Tityobuthus dastychi sp. n.

(Figs 1-6)

HOLOTYPE (male): NW Madagascar, Ampijozoa, III/1996, coll. Ph. Choteau. Deposited in the Zoologisches Museum Hamburg (Reg. No. A19/97).

PARATYPE (female): data same as for holotype. (Reg. No. A20/97).

ETYMOLOGY: Patronym in honor of Dr. H. Dastych of the Zoologisches Institut und Zoologisches Museum, Universität Hamburg.

Description based on male holotype. Measurement in Table I.

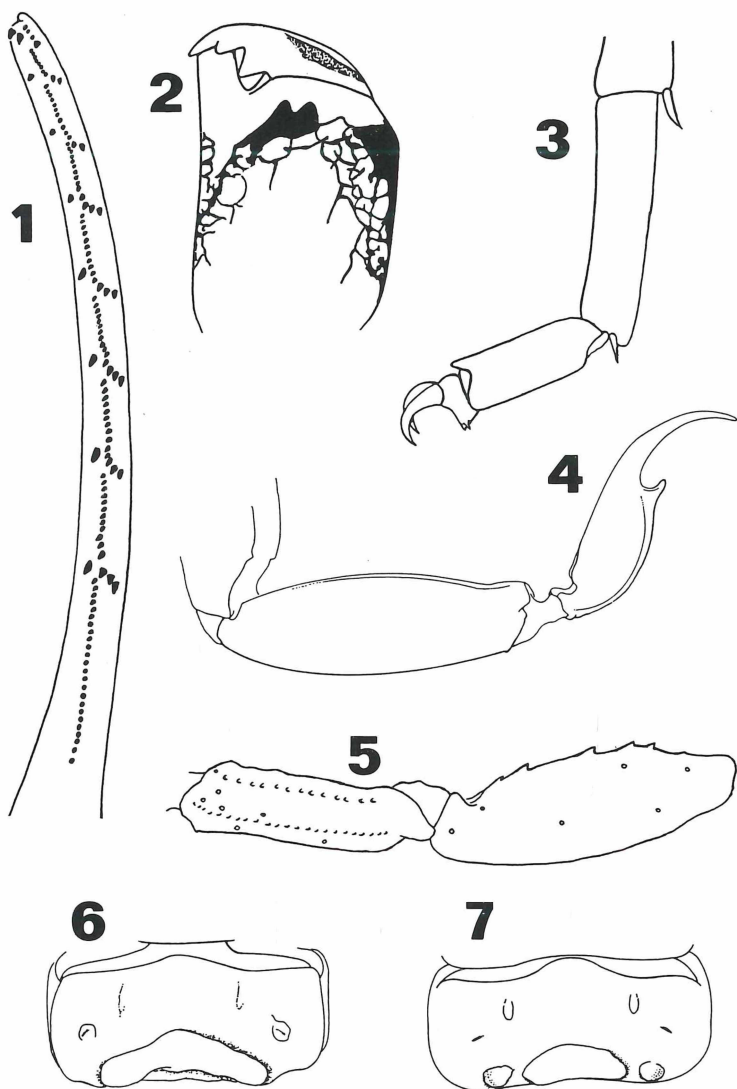
C o l o r a t i o n. Basically yellowish, symmetrically marbled with dark brown, producing an overall spotted appearance. Prosoma: carapace yellowish heavily spotted; eyes surrounded by black pigment. Mesosoma: yellowish with three longitudinal brown stripes. Metasoma: segments I to V yellowish; vesicle yellowish but lighter than segment V. Venter yellow with a number of spots on sternites II to V. Sternite III with a bright white zone in the posterior region. Chelicerae yellowish with dark spots anteriorly and laterally; fingers reddish. Pedipalps yellowish with several spots on femur and tibia; chelae less densely spotted; fingers much darker, reddish. Legs yellowish with diffuse fuscous spots.

M o r p h o l o g y. Carapace moderately to feebly granular; anterior margin with a feeble median concavity. Anterior median superciliary and posterior median keels moderate to feeble. All furrows moderate to feeble. Median ocular tubercle distinctly anterior to the center; median eyes separated by more than one ocular diameter. Three pairs of lateral eyes. Sternum subtriangular to pentagonal. Mesosoma: tergites feebly granular. Median keel moderate in all tergites. Tergite VII pentacarinat. Venter: genital operculum divided longitudinally. Pectines: pectinal tooth count 18-18; basal middle lamellae of the pectines not dilated; presence of fulcra. Sternites smooth with moderately elongate stigmata; VII without keels. Metasoma: segments I to IV with dorsolateral and lateral supramedian keels, crenulate. Lateral inframedian keels on segments I and II complete, strongly crenulate; absent from III and IV. Ventrolateral keels and ventral submedian keels on segments I to III, crenulate. Intercarinal spaces feebly granular. Segment V smooth and rounded. Telson smooth with some punctuations and with a long and moderately curved aculeous; subaculeous tooth strong and slightly spinoid. Cheliceral dentition characteristic of the family Buthidae (Vachon 1963); ventral aspect of both finger and manus with dense, long setae. Pedipalps: femur pentacarinat; tibia and chelae with some keels but moderately crenulate; internal face of tibia with four/five spinoid granules; all faces moderate to feebly granular. Movable fingers with 8/9 oblique rows of granules; internal and external accessory granules present. Trichobothriotaxy; orthobothriotaxy A- α (Vachon 1973, 1975). Legs: tarsus with very numerous median fine setae ventrally. Tibial spurs present.

D i f f e r e n c e s p r e s e n t e d b y a l l o t y p e f e m a l e: Coloration and pigmentation similar to that of the holotype male, but slightly darker. Morphology: the same as for the male, but slightly bulky. Morphometric differences in Table I. Smaller pectines; tooth count 18-18; basal middle lamellae not dilated.

T a x o n o m i c p o s i t i o n o f t h e n e w s p e c i e s

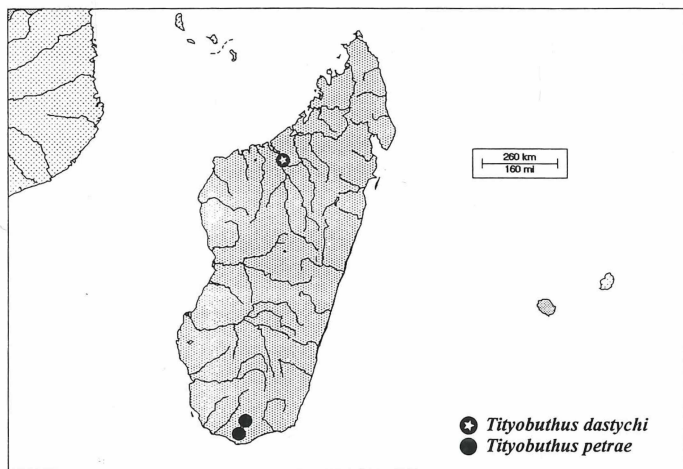
According to the key proposed by Lourenço (1996c) for the species of the genus *Tityobuthus*, the new species *Tityobuthus dastychi* appears to be most close related to *Tityobuthus petrae* Lourenço, 1996. The two species can, however, be readily distinguished by the following features: (i) a different pattern of pigmentation of the metasoma, (ii) the different shape of the pectines, (iii) the presence of a conspicuous white spot on the Vth sternite of the new species, which is much smaller in *T. petrae* (Figs. 6 and 7).



Figs 1-7. *Tityobuthus dastychi* sp. n. (Figs 1-6): 1 - movable finger of pedipalp chelae; 2 - chelicerae; 3 - leg showing tibial spur and pro-lateral pedal spur; 4 - fifth metasomal segment and telson, lateral view; 5 - tibia and femur, dorsal view; 6 & 7 - fifth sternite (all holotype); *T. petrae* Lourenço: 7 - fifth sternite (paratype, male).

Table I. Morphometric values (in mm) of the male holotype and female allotype of *Tityobuthus dastychi* sp. n.

	Holotype (♂)	Allotype (♀)
Carapace:		
- length	2.4	2.8
- anterior width	1.8	2.0
- posterior width	2.6	3.2
Metasomal segment I:		
- length	1.5	1.8
- width	1.4	1.6
Metasomal segment V:		
- length	3.2	3.2
- width	1.2	1.2
- depth	1.0	1.0
Vesicle:		
- width	0.8	0.9
- depth	0.8	0.9
Pedipalp:		
- Femur length	2.0	2.2
- Femur width	0.6	0.8
- Tibia length	2.4	3.1
- Tibia width	0.9	1.1
- Chelae length	4.0	4.3
- Chelae width	0.8	0.9
- Chelae depth	0.8	0.8
Movable finger:		
- length	2.8	2.9

Fig. 8. Type localities of *T. dastychi* sp. n. and *T. petrae* Lourenço.

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