

A remarkable bifid aculeus in *Androctonus amoreuxi* (Audouin, 1826) from central Algeria (Scorpiones: Buthidae)

Salah Eddine Sadine

Faculté des Sciences de la Nature et de la Vie et Sciences de la terre, Université de Ghardaïa, BP 455 Ghardaïa 47000, Algeria.
sse.scorpion@yahoo.fr

Abstract: An adult female of the buthid scorpion *Androctonus amoreuxi* (Audouin, 1826) from a palm grove of Ghardaïa region (central Algeria) having a bifid aculeus (double aculeus) is recorded. This type of malformation of the telson has not been previously reported for this species.

Key words: Scorpiones, Buthidae, telson anomaly, Algeria.

Notable acúleo bífido en *Androctonus amoreuxi* (Audouin, 1826), de Argelia central (Scorpiones: Buthidae)

Resumen: Se registra una hembra adulta del escorpión bútido *Androctonus amoreuxi* (Audouin, 1826), procedente de un palmar en la región de Ghardaïa, Argelia central, que tiene el telson con doble acúleo. Este tipo de malformación no se había reportado previamente en esta especie.

Palabras clave: Scorpiones, Buthidae, telson anómalo, Argelia.

Developmental anomalies are well known in scorpions (Polis, 1990). Many cases of malformations have been recorded in various scorpion families (Galvis & Flórez, 2016). But, the teratological malformation of the telson was reported only in Buthidae (Dupré & Leganguex, 1999). For the genus *Androctonus* Ehrenberg, 1828 (Buthidae) with more than 29 species (Rein, 2021), this malformation of the telson was reported only in *A. australis* (Linnaeus, 1758) with double aculeus (Sergent, 1942) and with triple aculeus (Sergent, 1946).

In this note, we describe a new telson teratology in *Androctonus amoreuxi* (Audouin, 1826) with a double aculeus. This species has a very wide distribution in Algeria (Vachon, 1952) and it is considered as the biggest scorpion in Algeria (Sadine *et al.* 2020). It also is the most abundant scorpion species in Ghardaïa region, with

more than 42.05% (Sadine, 2018) and it is generally found on sandy, gravelly and stony grounds (Sadine *et al.*, 2018).

This female was found in its natural biotope (palm grove), with a normal body (prosoma, mesosoma and appendages normal). This malformation has been only on telson (Fig. 1) with a double aculeus (Fig 2-3). The specimen examined is an adult female with a medium seize. As mentioned by Galvis & Flórez (2016), this malformation might does not cause a problem in hunting prey, because they big scorpion can hunt prey without using the telson

MATERIAL EXAMINED. *Androctonus amoreuxi* (Audouin, 1826). Algeria, region of Ghardaïa (32°18'N, 003° 33'E), in Palm grove, 530 m, April/2021, female adult. Specimen is deposited in Laboratory of Zoology, University of Ghardaïa, Algeria.

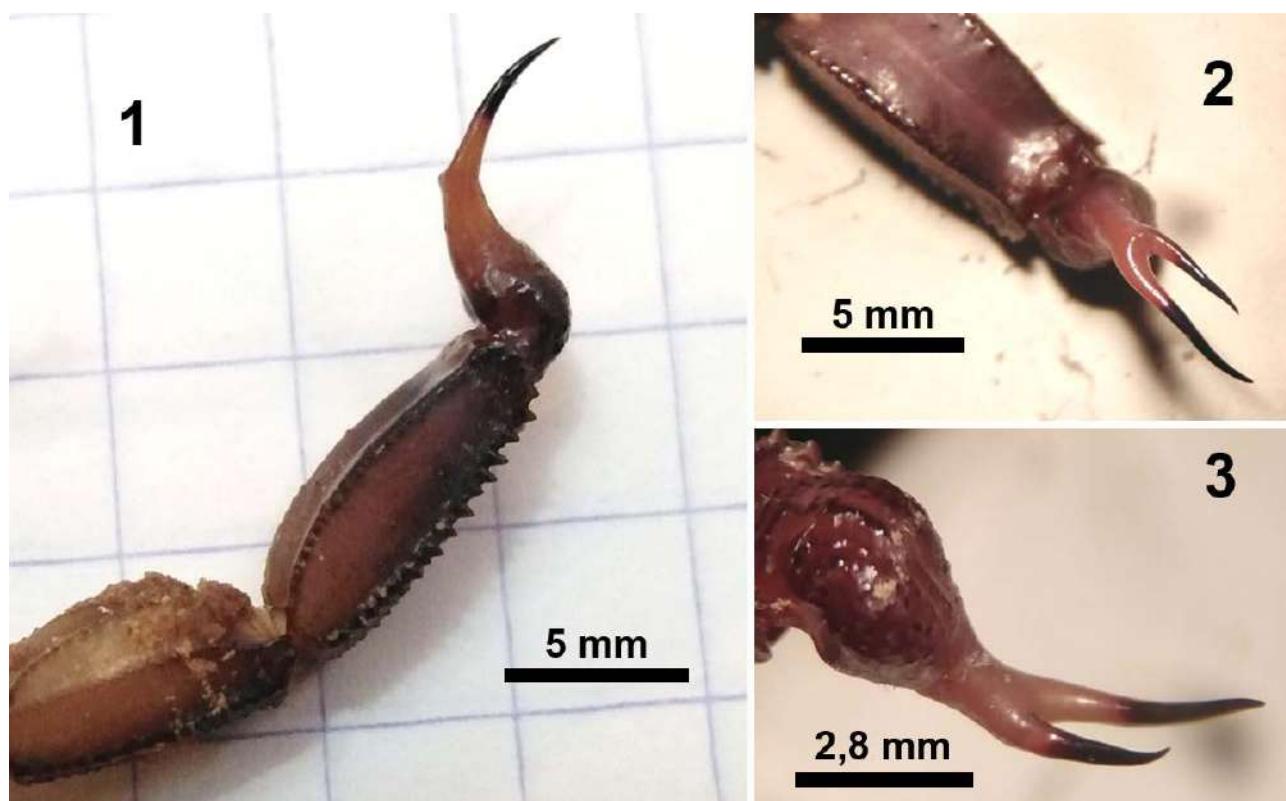


Fig. 1-3. *Androctonus amoreuxi* (Audouin, 1826), female from region of Ghardaïa, Algeria, showing double aculeus. 1, Segment V and telson, lateral view, 2-3, telson in ventral (2) and lateral (3) view.

Bibliography

- DUPRE, G. & J. LEGANGNEUX 1999. Synthèse sur la tératologie des scorpions à propos d'un cas rare chez *Euscorpius flavicaudis* (Scorpiones, Euscorpiidae). *Arachnides*, **40**: 4-7.
- GALVIS, W. & E. FLÓREZ-D 2016. A new telson teratology in the scorpion *Opisthacanthus* Peters, 1861 (Scorpiones: Hormuridae). *Arachnology*, **17**(3): 157-158.
- POLIS, A.G. 1990. *The Biology of Scorpions*. Standford University Press. 587p.
- REIN, J.O. 2020. *The Scorpion Files*. <https://www.ntnu.no/ub/scorpion-files/buthidae.php> (Update 29.04. 2021).
- SADINE, S.E. 2018. *La faune scorpionique du Sahara septentrional algérien: Diversité et Ecologie*. Thèse de Doctorat ès sciences. Université Kasdi Merbah-Ouargla. Algérie: 112 pp.
- SADINE, S.E., S. BISSATI, & M.A. IDDER 2018. Diversity and structure of scorpion fauna from arid ecosystem in Algerian Septentrional Sahara (2005-2018). *Serket*, **16**(2): 51-59.
- SADINE, S.E., S. DJILANI & K.E. KERBOUA 2020. Overview on Scorpions of Algeria. *Algerian Journal of Health Sciences*, **2** (s): 8-14.
- SERGENT, E. 1942. Sur une anomalie de l'aiguillon d'un scorpion. *Arch. Inst. Pasteur Algérie*, **20**(1): 100-101.
- SERGENT, E. 1946. Anomalies chez les Scorpions. *Arch. Inst. Pasteur Algérie*, **24**(1): 80-82.
- VACHON, M. 1952. *Etudes sur les scorpions*. Publications de l'Institut Pasteur d'Algérie, Alger: 482 pp.