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Odontobuthus tirgari sp. nov. (Scorpiones, Buthidae) from the eastern region of the Iranian Plateau

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Abstract

A new species of scorpions in the genus *Odontobuthus* (Scorpiones, Buthidae) is described from Khorasan Province, Iran. Currently, *Odontobuthus* includes two species in Iran, *Odontobuthus doriae* Thorell, 1876, which is restricted to high elevations of the central Iranian Plateau and *Odontobuthus bidentatus* Lourenço & Pezier, 2002 from the Zagros Mountains. The results of morphological comparisons, univariate and multivariate statistical analyses and phylogenetic analysis of *COI* sequence data clearly confirm a deep split between populations from the eastern Iranian Plateau and *O. bidentatus* Lourenço & Pezier, 2002 and *O. doriae* Thorell, 1876. Therefore, according to comparative morphological and molecular analyses, a new species, *Odontobuthus tigari* sp. nov. (♀♂) was described from eastern Iran. This addition represents the third species of this genus from Iran.

Key words: Scorpion, fauna, Khorasan, new species, *COI*

Introduction

In 1950, Dr. Max Vachon at the Museum National d'Histoire Naturelle, France, created a new buthid genus named *Odontobuthus* after his revision of the traditional genus *Buthus* Leach, 1815. He partitioned this large taxon into several genera primarily based on differences in carination of prosoma, tergites and metasomal segments. The genus *Odontobuthus* is characterized by sharing prominent, enlarged dentition on metasomal segments II–III. Vachon (1950) considered *O. doriae* and *O. odonturus* as distinct species, *O. doriae* which was recorded from high elevations of western and central Iran and *O. odonturus* from the Indus River drainage of eastern Pakistan and the Rajasthan desert of western India. Lourenço & Pézier (2002) confirmed the taxonomic validity of these taxa as separate species in their revision of the genus *Odontobuthus*. They also described the third species, namely *O. bidentatus* from the Tigris-Euphrates River drainage of eastern Iraq and the western foothills of the Zagros Mountains in Iran. Lowe (2010) described the fourth species, *O. brevidigitus*, from northern Oman. The discovery of this species represents a significant range extension of this genus across the Persian Gulf into the Arabian Peninsula (Lowe, 2010). All *Odontobuthus* species are fossorial animals with distinct morphological adaptations for burrowing in consolidated sandy or silty substrates on alluvial plains (Lowe, 2010; Farzanpay, 1987). The genus *Odontobuthus* is known by two species in Iran, namely, *O. doriae* and *O. bidentatus* (Lourenço & Pézier, 2002; Navidpour et al., 2008a,b,c,d; Lowe, 2010). All of the previous records of *O. odonturus* from Iran (Farzanpay, 1987; Kovařík, 1997) are now considered as *O. bidentatus* (Lourenço & Pézier, 2002), therefore, the record of *O. odonturus* from Iran requires further investigations.

Systematic studies on the scorpion fauna have not been performed intensively in much of central, eastern and southern Iran because of lacking comprehensive sampling from the distribution ranges of *Odontobuthus*. Therefore, confirmed records of the genus *Odontobuthus* in eastern parts of Iran are lacking. For example, Birula

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