



<http://dx.doi.org/10.11646/zootaxa.3914.5.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:A6C5103F-A6E5-457E-8C95-43AD6B29918B>

***Cobitis avicennae*, a new species of spined loach from the Tigris River drainage (Teleostei: Cobitidae)**

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Abstract

Cobitis avicennae, new species, from the Karkheh and Karun sub-drainages in the Tigris catchment is distinguished from other *Cobitis* species in the Persian Gulf, Kor and the southern Caspian Sea basins by having a single lamina circularis in males, a small comma-shaped black spot on the upper caudal-fin base, 5½ branched anal-fin rays, 5–6 rows of dark spots on the dorsal and caudal fins, scales below the dorsal-fin base with a small focal zone and pigmentation zone Z4 with 12–17 large, partly fused blotches. It is also distinguished from other *Cobitis* species in the comparison group by six fixed, diagnostic nucleotide substitutions in the mtDNA COI barcode region.

Key words: *Cobitis*, morphology, new species, Tigris, Iran

Introduction

Spined loaches of the genus *Cobitis* are widespread throughout the Palearctic, from northern Morocco and Portugal east to China and Japan and south to Vietnam and Central Iran (Kottelat 2012). Kottelat (2012) recognized 65 species in *Cobitis*, five are found in the Caspian Sea basin (*C. amphilekta*, *C. faridpaki*, *C. keyvani*, *C. melanoleuca*, and *C. taenia*). From these, *C. melanoleuca* and *C. taenia* are restricted to the northern Caspian Sea basin (Kottelat & Freyhof 2007) while the other three species have recently been described from the southern Caspian Sea basin (Mousavi-Sabet *et al.* 2011, 2012; Vasil'eva & Vasil'ev 2012). Three *Cobitis* species are known from the Persian Gulf and Kor basins: *C. elazigensis* from the upper Euphrates (Coad & Sarieyyipoglu 1988), *C. kellei* from the upper Tigris (Erk'akan *et al.* 1998), and *C. linea* from the Kor endorheic basin in Central Iran (Esmaeili *et al.* 2010). A comprehensive phylogenetic analysis of the genus *Cobitis*, including species with two laminae canestrini, and the colonization history of Europe and the Middle East by freshwater fishes in general and *Cobitis* in particular, has been discussed in detail by Perdices & Doadrio (2001), Perdices *et al.* (2003, 2008) and Bohlen *et al.* (2006).

The presence of a species of *Cobitis* in the lower Tigris drainage, from the Karun and Karkheh Rivers, was first reported by Abdoli (2000), who identified these fishes as *C. taenia*. Esmaeili *et al.* (2010) listed them as *Cobitis* sp., while Coad (2010) reported spined loaches, identified as *C. taenia*, from the Iraqi part of the Tigris drainage. Comparing spined loaches from the Iranian Tigris with congeneric species from the area, it became clear that they represent an unnamed species, which is described here.



FIGURE 9. Stream Dehno; type locality of *C. avicennae*.

Acknowledgements

We express our sincere thanks to A. Juladeh, R. Seifi, H. Nofersti and H. R. Bagherpour for their help in the field, to E. Sepahi for her help with photography and G. Sayyadzadeh for helping in molecular works. Thanks also to R. Patimar for providing JF with materials of Iranian *Cobitis* used in this study and E. Ünlü (Dijabakir) for his unpublished information on *C. kellei*. Support came from the project FREDIE (Freshwater Diversity Identification for Europe, www.fredie.eu), funded by the Joint Initiative for Research and Innovation (PAKT) program of the German Leibniz Association. Thanks also to Z. Moradkhani for her help with English revision.

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