

Phylogeny of the genus *Cobitis* (Linnaeus, 1758) in the southern Caspian Sea basin using osteological characters

Jalili, P.^{1,*}; Eagderi, S.¹; Pourbagher, H.¹

¹ Department of Fisheries, Faculty of Natural Resources, University of Tehran, P.O. Box 4314, Karaj, Iran.

*Email: pariya.jalili@yahoo.com

The taxonomic status of the members of the genus *Cobitis* is poorly recognized. Hence, the present study was conducted to study the phylogenetic relationships of two species of spined loaches from the southern Caspian Sea basin, including *C. faridpaki* and *C. keyvani* and two unknown populations of this genus from the Doogh River at the western and Gisum River at the eastern part of this basin as in-group and *Oxyneomacheilus bergianus* as out-group by employing a cladistic method based on osteological data. Based on the results, the member of the genus *Cobitis* in the southern Caspian Sea basin form a monophyletic taxon (significantly supported with 100% bootstrap values). The results showed that the genus *Cobitis* of the southern Caspian Sea basin could be divided into two subclades, including *Cobitis* sp. 2 (Doogh) and *C. faridpaki* (Siahrud) + *Cobitis* sp. 1 (Gisum) + *C. keyvani* (Babulrud). The results also do not confirm the distinction of two species i.e. *C. faridpaki* and *C. keyvani* in the southern Caspian Sea basin using osteological characters.

Keywords: Phylogeny, *Cobitis*, Caspian Sea basin, Osteology, Loach.