

4. Teimori, A., Esmaeili, H.R., Gholami, Z., Zarei, N. & Reichenbacher, B. (2012) *Aphanius arakensis*, a new species of tooth-carp (Actinopterygii, Cyprinodontidae) from the endorheic Namak Lake basin in Iran. *Zookeys*, 215, 55–76.
5. Teimori, A.; Esmaeili, H. R.; Erpenbeck, D.; Reichenbacher, B., 2014: A new and unique species of the genus *Aphanius* (Teleostei: Cyprinodontidae) from Southern Iran: a case of regressive evolution. *Zool. Anz.* 253, 327–337.
6. Collette, B.B., 1977. Epidermal breeding tubercles and contact organs in fishes. *Symp. Zool. Soc. Lond.* 39: 225-268.
7. Hollander, R.R., 1986. Microanalysis of scales of poeciliid fishes. *Copeia* 1, 86-91.

### Scanning Electron Microscopy of scale teeth (lepidonts) in some Iranian endemic *Aphanius* species (Teleostei, Cyprinodontidae)

Teimori, A.<sup>1,\*</sup>; Manizadeh N<sup>1</sup>; Motamedi. M.<sup>1</sup>

Department of biology, Faculty of sciences, Shahid Bahonar University of Kerman, Kerman, Iran

\*Email: a.teimori@uk.ac.ir

In this study, the microstructure of scale lepidont (scale teeth) in six endemic *Aphanius* species has been studied and their possible contribution to discrimination of these species has been evaluated and discussed. The results showed that the morphology of lepidonts, space between them, their distribution and mode of implantation on the circuli crest play an important role in separation of the studied species. Overall, the results agree with those of previously published molecular analysis of the phylogenetic relationships among species of *Aphanius*. Therefore, this study demonstrates that the study of microstructures of scale, such as lepidont, can provide some useful information on the relationships among species of the genus *Aphanius* encouraging the use of scale characters, combined with other traits, in phylogenetic analyses.

**Keywords:** Phylogeny, scale, hard structure, Cyprinodontidae.