

## Comment on “A proposal for a new generic structure of the killifish family Aphaniiidae, with the description of *Aphaniops teimorii* (Teleostei: Cyprinodontiformes)” by Jörg Freyhof & Baran Yoğurtçuoğlu, *Zootaxa* (July 2020) 4810 (3): 421–451

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### Abstract

Here we explain why the species name *Aphaniops hormuzensis* (Teimori, Esmaeili, Hamidan, Reichenbacher, 2018) should be considered as valid. As a consequence, the species name *Aphaniops teimorii* Freyhof and Yoğurtçuoğlu, 2020 should be treated as a junior synonym of *A. hormuzensis*.

**Keywords:** Taxonomy, *Aphanius*.

**Zoobank:** urn:lsid:zoobank.org:pub:3E76490F-A5A4-4903-87DE-7A5D31F82E1D

*Aphanius hormuzensis* Teimori, Esmaeili, Hamidan, Reichenbacher, 2018 (now *Aphaniops hormuzensis*), a new tooth-carp species, was described by Teimori et al. (2018) from the Hormuzgan River System in southern Iran based on a combination of data including pigmentation and morphological characters of the specimens, otolith morphology, and mt-DNA sequences. In their recent publication, Freyhof and Yoğurtçuoğlu (2020) re-describe *Aphaniops hormuzensis* as a new species under the name *Aphaniops teimorii*. By referring to the original description of *A. hormuzensis* in Teimori et al. (2018), Freyhof and Yoğurtçuoğlu (2020) write in the abstract that “The original description of *Aphanius hormuzensis* does not fulfil the criteria of the International Commission on Zoological Nomenclature”. Furthermore, on pages 429-430, Freyhof and Yoğurtçuoğlu (2020) state that “the authors designated “ZM-FISBUK 157” as the holotype of this new species, without mentioning which collection ZM-FISBUK might be and where this collection is located. The holotype of *A. hormuzensis* is therefore invalid, because it does not fulfill the requirements of Article 16.4.2, and the name *Aphanius hormuzensis* Teimori, Esmaeili, Hamidan & Reichenbacher, 2018 is not available following the rules of zoological nomenclature”. For that reason, Freyhof and Yoğurtçuoğlu (2020) considered *A. hormuzensis* as an unavailable name and replaced it with *A. teimorii* as a new species.

However, we strongly disagree with these statements. The original description of *A. hormuzensis* includes a ZooBank registration (urn:lsid:zoobank.org:act:DA995390-A7F3-4455-A9B5-E1F2436FAB3C, page 585 of Teimori et al. 2018), and part of this ZooBank registration is the explanation that ZM-FISBUK, where the holotype has been deposited, is the Zoological Museum and Fish collection of the Shahid Bahonar University of Kerman (see Fig. 1). It should be noted that although the ZooBank entry is not part of the original paper, the reference to the ZooBank entry is. Thus, the required information of the collection is available from the original description of *A. hormuzensis* by Teimori et al. (2018). This has been announced to Jörg Freyhof by one of us (Bettina Reichenbacher) via e-mail by October 10th, 2018, when he asked her about the issue.

Moreover, on page 430 of their article, Freyhof and Yoğurtçuoğlu (2020) mention that “the redescription is largely based on data presented by Teimori et al. (2018) in addition to our own materials”. Therefore, they describe a new species mainly based on already published data of other people, which is scientifically unusual.

Accepted: 16 September 2020; Published: 19 September 2020

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*Aphaniops hormuzensis* Teimori, Esmaeili, Hamidan & Reichenbacher, 2018

**LSID** urn:lsid:zoobank.org:act:DA995390-A7F3-4455-A9B5-E1F2436FAB3C

Rank: Species  
 Parent: *Aphaniops* Nardo, 1827  
 Specific Name: hormuzensis  
 Authorship: Teimori, Esmaeili, Hamidan & Reichenbacher  
 Publication: Teimori, Azad, Hamid R. Esmaeili, Nashat Hamidan & Bettina Reichenbacher. 2018 Systematics and historical biogeography of the *Aphaniops* *dispar* species group (Teleostei: Aphaniidae) and description of a new species from Southern Iran. *Journal of Zoological Systematics and Evolutionary Research* 56: 579–598.  
 Page:  
 Figure(s): 3a (holotype), (b) Alive, not-preserved female individual at type locality. (c–d) Alive, not-preserved male individuals from Lar (c) and near Bandar Abbas (d)  
 Type Specimen(s): holotype: deposited in the Zoological Museum and Fish collection of the Shahid Bahonar University of Kerman under the number ZM-FISBUK 157  
 Type Locality: Iran, Hormuzgan Province (S-Iran), 330 m, Mehran River, Gotab village, 15 km south of Bastak (E 54o, 15', 46.1" N 27o, 08', 39.8"),  
 Fossil: No

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**Figure 1.** ZooBank registration (urn:lsid:zoobank.org:act:DA995390-A7F3-4455-A9B5-E1F2436FAB3C) for *Aphaniops hormuzensis* (Teimori et al. 2018).

In our view, there is clearly no reason to provide a replacement name and give a new description for an already well-established species. We consider the approach of Freyhof and Yoğurtçuoğlu (2020) as remorseless, unethical, and an example of taxonomic vandalism, and our view is shared by all of our colleagues with which we have discussed this issue.

Finally, it should also be accentuated that the objective of the ICZN Code is to provide nomenclatural stability, and it should not be abused to describe unnecessary new names. Although the Code should be followed exactly, like in any other law or regulation, there is always room for interpretation. No formulation can meet all the possible cases, so for each case, the Code needs to be applied and interpreted. In conclusion, we emphasize to accept the name of *Aphaniops hormuzensis* as valid and to consider *Aphaniops teimorii* as a junior synonym of *A. hormuzensis*.

#### Literature cited

- Teimori A., Esmaeili H.R., Nashat H., Reichenbacher B. 2018. Systematics and historical biogeography of the *Aphaniops dispar* species group (Teleostei: Aphaniidae) and description of a new species from Southern Iran. *Journal of Zoological Systematics and Evolutionary Research* 56(4): 579-598.
- Freyhof J., Yoğurtçuoğlu B. 2020. A proposal for a new generic structure of the killifish family Aphaniidae, with the description of *Aphaniops teimorii* (Teleostei: Cyprinodontiformes). *Zootaxa* 4810(3): 421-451.