



## Notes on the annual killifish species *Nothobranchius rachovii* (Cyprinodontiformes; Nothobranchiidae) with the description of two new species

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### Abstract

Two new species of the East African annual killifish genus *Nothobranchius*, *N. krysanovi* and *N. pienaar*, occurring on the coastal plains of Mozambique and in the Republic of South Africa, are described. Both are members of a clade, herein termed as *N. rachovii* species group, within the subgenus *Nothobranchius*. The species *N. rachovii* is rediagnosed on the basis of cytology, mtDNA analyses, morphology and male colouration. Both new species, *N. krysanovi* and *N. pienaar*, can be distinguished from the other species of the group by male colouration, morphology, cytology and mtDNA sequences. Based on mtDNA analyses the subgenus *Zononothobranchius* is reviewed and presently regarded as containing only one species.

**Key words:** chromosome number, new species, *Nothobranchius krysanovi*, *Nothobranchius pienaar*, Mozambique, Republic of South Africa, *Zononothobranchius*

### Introduction

*Nothobranchius* is the most species rich and geographically widespread genus of seasonal nothobranchiid killifishes in Africa (Wildekamp 2004). To date, seven described *Nothobranchius* species are known from southern and central Mozambique and the northeastern Republic of South Africa, of which only four are currently regarded as valid: *N. kadleci* Reichard, 2010, *N. furzeri* Jubb, 1971, *N. orthonotus* (Peters, 1844) and *N. rachovii* Ahl, 1926. Two others, *N. kuhntae* Ahl, 1926 and *N. mayeri* Ahl, 1935 are presently regarded as synonyms of *N. orthonotus* (Wildekamp, 2004). The status of another one, *N. mkuziensis* (Fowler, 1934) is unclear and needs further study.

*Nothobranchius rachovii* was described after syntypes originating from a commercial ornamental fish import from Beira, Portuguese East Africa, now Mozambique, that came to Germany in 1925 (Ahl, 1926). A comprehensive historical review of collections of *N. rachovii*, and populations that were regarded as *N. rachovii* or *N. aff. rachovii*, has been presented in Watters *et al.* (2009).

Since its introduction, *N. rachovii* has been a popular aquarium fish. During the Second World War it disappeared from the aquarium hobby. As a result of its reintroduction in Germany by Roloff, who collected specimens near Beira in 1958 (Roloff, 1959), an aquarium fish population was again established. Subsequent collections of *N. rachovii* from Mozambique confirmed the presence of the typical (“blue”) morph of *N. rachovii* being restricted to the Beira area and the south side of the mouth of the Zambezi River (Rosenstock, 1992; Watters *et al.*, 2009). A lower Shire River population recently discovered in western Mozambique (Kearney and Jordaan, pers. comm.) was not available for this study and will be reported upon later.

In 1968 Pienaar collected *Nothobranchius* from a seasonal pool at Pumbe Picket in the Kruger National Park (K.N.P.) in the northeastern Republic of South Africa (Pienaar, 1968). These specimens differed from the