



## ***Nothobranchius kadleci* (Cyprinodontiformes: Nothobranchiidae), a new species of annual killifish from central Mozambique**

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### **Abstract**

*Nothobranchius kadleci*, a new African annual killifish species, is described from the drainages of the Save, Gorongose, Pungwe and Zangue Rivers in the Sofala Province of central Mozambique. *Nothobranchius kadleci* is similar to *Nothobranchius furzeri* from which it is distinguished by colouration (red pelvic fins, red lips, more extensive red colouration on body) and morphology (larger distance between pectoral and pelvic fins, shorter anal and dorsal fins, and shorter base of the anal fin). The currently known distribution of these two species is allopatric, with the *N. kadleci* range north of the *N. furzeri* range. *Nothobranchius kadleci* occurs sympatrically with *Nothobranchius orthonotus* and *Nothobranchius rachovii*, from which it can clearly be distinguished by different colour patterns of the fins and body, head shape and morphometric characteristics. A total of 12 populations were recorded between the northern bank of the Save River and southern bank of the Zambezi during collection trips in February 2008 and February 2009.

**Key words:** Save River, Beira region, Sofala Province, Zambezi, Limpopo

### **Introduction**

The genus *Nothobranchius* (Cyprinodontiformes: Nothobranchiidae) is comprised of small (3–15 cm), short-living (3–12 months) fish inhabiting temporary habitats such as isolated savannah pools throughout eastern Africa, from southern Sudan to KwaZulu-Natal in South Africa. The genus currently includes at least 50 valid species, separated into five subgenera (Huber 2000; Wildekamp 2004). All *Nothobranchius* species are annual. They hatch at the start of rainy season and sexually mature within a few weeks. After reaching sexual maturity, they reproduce daily and females lay 5–50 eggs/day (Haas 1976a). Eggs remain in the substrate after pools desiccate and survive in developmental diapause until the next rainy season (Wildekamp 2004). *Nothobranchius* species are sexually dimorphic and dichromatic; males are robust and colourful while females are pale. The bright male colouration is sexually selected (Haas 1976b) and species specific (Huber 2000). Many species occur in several colour forms that may be either sympatric or allopatric (Huber 2000; Wildekamp 2004; Reichard *et al.* 2009). Several *Nothobranchius* species may co-occur in sympatry in the same pool (Huber 2000).

At least five *Nothobranchius* species are reported from Mozambique (Woods 2000; Skelton 2001; Wildekamp 2004; Valdesalici 2007; Valdesalici & Hengstler 2008; Reichard *et al.* 2009; Watters *et al.* 2009). The distribution of *Nothobranchius furzeri* Jubb, 1971 is restricted to southern Mozambique, with records from basins of the Limpopo and Incomati Rivers (Jubb 1971; Wood 2000; Terzibasi *et al.* 2008; Watters *et al.* 2009; reviewed in Reichard *et al.* 2009). The range of *Nothobranchius orthonotus* (Peters, 1844) extends from KwaZulu-Natal in South Africa in the south to the northern banks of the Zambezi River in Quelimane in the north (Wildekamp 2004). Two closely related species, *Nothobranchius kuhntae* (Ahl, 1926) and *Nothobranchius mayeri* Ahl, 1935, both often synonymised with *N. orthonotus* (Wildekamp 2004), were described from Beira region in central Mozambique (Ahl 1935; Ahl 1936). *Nothobranchius rachovii* Ahl,