Zootaxa 1612: 25–44 (2007)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Two new cichild species *Neolamprologus* (Teleostei: Cichlidae) from Lake Tanganyika, East Africa

PIET VERBURG[1] & ROGER BILLS[2]

[1]*Institute of Ecology, University of Georgia, Athens, GA 30602. E-mail: verburg@uga.edu*
[2]*South African Institute of Aquatic Biodiversity, Private Bag 1015, Somerset Street, Grahamstown 6140, South Africa*

Abstract

Two new cichlid species, *Neolamprologus walteri* **sp. nov.** and *N. chitamwebwai* **sp. nov.**, from the Bangwe peninsula (Tanzania), on the east coast of Lake Tanganyika, are described. Both species belong to the *N. savoryi* species complex, characterised by a lunate tail with long filaments. *Neolamprologus chitamwebwai* and *N. walteri* are highly stenotopic species, restricted to rocky habitat. They occur sympatrically with each other and with two other species of the complex but occupy different microhabitats. *Neolamprologus walteri* lives in large numbers in sheltered areas with rubble substrate whereas *N. chitamwebwai* occurs in much lower numbers on more exposed parts of the rocky shores, with large boulders, lower sedimentation rates, coarser sediment, and higher visibility. The two new species although closely related, show clear ecological differentiation. Evidence of ecological differentiation between closely related sympatric cichlids is rare in literature. Closely related sympatric cichlids in the large African lakes (with literature mainly referring to Lake Victoria and Lake Malawi) have been suggested to differ little in diet and habitat use, which has encouraged the idea that cichlid species can coexist without niche partitioning. Our paper provides a different perspective with cichlids from Lake Tanganyika.

Key words: *Neolamprologus walteri*, *Neolamprologus chitamwebwai*, ecology, stenotopic, sympatry, lamprologines, mechanosensory lateral line

Introduction

Members of the genus *Neolamprologus* (49 described species, all but one endemic to Lake Tanganyika) are highly diverse, and the genus is probably not monophyletic (Poll, 1986; Schelly *et al.*, 2003; Aibara *et al.*, 2005). Within the genus *Neolamprologus*, 10 described species are characterised by a lunate tail with long filaments, uncommon among lamprologines. These closely related species form the stenotopic lithophilic *N. savoryi* complex (Poll, 1978; Brichard, 1989), of which several members are popular with the aquarium trade (Konings, 1998) and which are of interest to behavioural biologists (Balshine-Earn *et al.*, 1998). The 10 members of the *N. savoryi* complex are, in chronological order of description: *N. savoryi* (Poll, 1949), *N. brichardi* (Poll, 1974), *N. pulcher* (Poll, 1974), the latter two first described as subspecies of *N. savoryi* (Trewavas & Poll, 1952), *N. splendens* (Brichard, 1989), *N. olivaceous* (Brichard, 1989), *N. gracilis* (Brichard, 1989), *N. falcicula* (Brichard, 1989), *N. crassus* (Brichard, 1989), *N. marunguensis* Büscher, 1989 and *N. helianthus* Büscher, 1997. The species complex has been referred to as the *N. brichardi* complex (Konings, 1998), but because *N. savoryi* was described first (Poll, 1949), while *N. brichardi* was described later as a subspecies of *N. savoryi* (Trewavas & Poll, 1952), we here refer to the complex as the *N. savoryi* species complex. Here we report on two new species belonging to the complex, both of which occur at the Bangwe peninsula on the east coast of Lake Tanganyika, 5 km south of Kigoma (Tanzania, Fig. 1).

Accepted by L. Page: 27 Aug. 2007; published: 10 Oct. 2007