

## **Article**



http://dx.doi.org/10.11646/zootaxa.3693.2.2 http://zoobank.org/urn:lsid:zoobank.org:pub:CC2BE79B-5CC4-4A78-8A70-21BBD106A386

## Krobia petitella, a new species of cichlid fish from the Berbice River in Guyana (Teleostei: Cichlidae)

SARAH E. STEELE<sup>1</sup>, ELFORD LIVERPOOL<sup>2</sup> & HERNÁN LÓPEZ-FERNÁNDEZ<sup>1,3</sup>

<sup>1</sup>Department of Ecology and Evolutionary Biology, University of Toronto 25 Willcocks Street, Toronto, Ontario, Canada M5S 3B2. E-mail: sarah.steele@utoronto.ca

<sup>2</sup>Guyana National Museum, Ministry of Culture, Youth and Sport, Company Path, Georgetown, Guyana.

E-mail: elfordliverpool@yahoo.com

<sup>3</sup>Department of Natural History, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario, Canada M5S 2C6.

E-mail: hernanl@rom.on.ca

## **Abstract**

Krobia petitella, new species, is described from the Berbice River drainage of northeastern Guyana. It is distinguished from all other described species of Krobia (K. guianensis Regan, K. itanyi Puyo and K. xinguensis Kullander) as well as the closely related 'Aequidens' potaroensis and 'A'. paloemeuensis by tubed scales of the upper lateral line extending caudally into a line bisecting the lateral band blotches posterior to the mid-lateral spot. Krobia petitella n. sp. can be further diagnosed by the anterior lateral band spots lying immediately ventral to the upper lateral line, instead of being separated from the upper lateral line by a complete row of scales in all other species. Additionally, K. petitella n. sp. possesses a unique lateral coloration pattern formed by the combination of six vertical bars and four lateral band spots (vs. K. itanyi 5 bars/3 or 4 spots, K. guianensis 5/5, K. xinguensis 7/6, 'Aequidens' potaroensis 6/6, 'A'. paloemeuensis 5/5). The presence of Krobia petitella n. sp. in reaches of the Berbice River drainage in the Upper Demerara–Berbice region provides a novel locality for the genus in the Guianas and suggests the Berbice River has been isolated from the rest of nearby Guianese basins, particularly the Essequibo and the Corantijn.

Key words: Guiana Shield, Cichlasomatini, 'Aequidens' potaroensis, 'Aequidens' paloemeuensis

## Introduction

Kullander and Nijssen (1989) distinguished the genus Krobia from members of the similar genera Aequidens, Bujurquina and Tahuantinsuyoa and from all other Neotropical cichlids most notably by the position of the lateral band. Krobia displays a lateral band extending from the orbit to the base of the dorsal fin rather than to the posterior margin of the caudal peduncle. The possession of naked or nearly naked vertical fins, a furrow for the hyoid artery on the dorsal surface of the ceratohyal (lower than in morphologically similar taxa) and uniserial predorsal squamation in combination also distinguish Krobia from other similar genera.

As currently recognized, Krobia includes three species. Kullander and Nijssen (1989) included two species previously classified as Aequidens Eigenmann and Bray from the Atlantic drainages of the Guianas: K. guianensis from coastal drainages of Guyana and Surinam, and K. itanyi from the Marowijne River drainage in French Guiana and Surinam. More recently K. xinguensis from the Xingu River in Brazil was described by Kullander (2012). In addition, Kullander and Nijssen (1989) cited two undescribed species from French Guiana.

Morphological phylogenetic analysis by Kullander (1998) recovered Krobia, Bujurquina, Tahuantinsuyoa and Andinoacara as a monophyletic group, reflecting the conservative morphological features in Cichlasomatini and subtle diagnostic characters of each genus. However, recent molecular phylogenies have not supported the monophyletic relationship between these four genera (Musilová et al. 2008, Musilová et al. 2009, López-Fernández et al. 2010). Musilová et al. (2008, 2009), based on combined molecular and morphological phylogenies, and López-Fernández et al. (2010), based on molecular analysis, placed Krobia as sister to a clade