



# Article

urn:lsid:zoobank.org:pub:06C92974-A6A3-4D2F-97CC-2D3CA362B41F

## ***Triplophysa pseudostenura*, a new nemacheiline loach (Cypriniformes: Balitoridae) from the Yalong River of China**

CHUNLIN HE<sup>1,2</sup>, E ZHANG<sup>2</sup> & ZHAOBIN SONG<sup>1,3,4</sup>

<sup>1</sup>Sichuan Key Laboratory of Conservation Biology on Endangered Wildlife, College of Life Sciences, Sichuan University, Chengdu 610065 P. R. China

<sup>2</sup>Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan 430072 P. R. China

<sup>3</sup>Key Laboratory of Bio-Resources and Eco-Environment of Ministry of Education, College of Life Sciences, Sichuan University, Chengdu 610065 P. R. China

<sup>4</sup>Corresponding author. E-mail: zbsong@scu.edu.cn

### **Abstract**

A new species of nemacheiline loach, *Triplophysa pseudostenura*, is described from the Yalong River, a tributary of the upper Yangtze River drainage in China. Previous collectors misidentified the species as *T. stenura*. *Triplophysa pseudostenura* can be separated from *T. stenura* and other valid species of *Triplophysa* by the following combination of characters: body smooth and without scales; head tapering; lips thin and smooth; trunk and caudal peduncle slender, laterally compressed; depth of caudal peduncle tapering posteroventrally approaching caudal fin; posterior chamber of gas bladder reduced or absent; intestine short, forming a zigzag loop posterior to bottom of 'U'-shaped stomach; insertion of pelvic fins anterior to dorsal-fin origin; caudal fin deeply concave.

**Key words:** Teleost, new species, Upper Yangtze River, fish

### **Introduction**

The genus *Triplophysa* is a species-rich group in the subfamily Nemacheilinae, and is currently hypothesized to have 126 species, 108 of which are thus far known from China (He 2008; He *et al.* 2008; Xu & Wang 2009; Zheng *et al.* 2010; Froese & Pauly 2012). Species of the genus occur primarily in the Qinghai-Tibet Plateau and adjacent areas (Zhu 1989; Ding 1994). They are known to occur in the upper and middle Yangtze, Red, Yellow, and Pearl river drainages of China, upper Indus and Tigris river drainages of western Asia, and in river drainages of Central Asia (Zhu 1989; Zhou & Cui 1997). Species of the genus are uniquely distinguished from those of other genera in possessing marked sexual dimorphism: males have breeding tubercles, elevated skin on both sides of the head, and a thickened tuberculate pad on the dorsal surface of the outer broadened pectoral-fin rays (Zhu 1989; Li *et al.* 2007; Prokofiev 2007).

Surveys by our team from 2004 to 2007 throughout the Yalong River yielded an unidentified species of *Triplophysa*. Following comparisons with Yalong River specimens deposited in the Museum of Aquatic Organisms at the Institute of Hydrobiology, Chinese Academy of Sciences (IHB), the unidentified species could not be distinguished from IHB specimens originally identified as *T. stenura* (Herzenstein). After further study and analysis, these unidentified specimens were determined to represent a distinct species described herein.

### **Materials and methods**

All counts and measurements of captured and museum specimens follow methods outlined by Prokofiev (2007) and He *et al.* (2008). Measurements were taken point to point to the nearest 0.1 mm with digital calipers. Head depth was measured at its greatest depth; prepectoral length was measured from snout tip to pectoral-fin origin; postorbital length was measured from the posterior margin of the eye to the posterior edge of operculum;