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Triplophysa lixianensis, a new nemacheiline loach species (Pisces: Balitoridae) from the upper Yangtze River drainage in Sichuan Province, South China

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Abstract

Triplophysa lixianensis, a new nemacheiline loach species, is described from the Min Jiang of the upper Yangtze River drainage in Sichuan Province, South China. It can be separated from all other species of *Triplophysa* by having a unique combination of the following characters: posterior chamber of gas bladder greatly reduced or absent; caudal peduncle columnar with a roughly round cross-section at its beginning; anterior edge of lower jaw completely exposed or uncovered by lower lip; intestine short, forming a zigzag loop below stomach; dorsal-fin origin closer to caudal-fin base than to snout tip; pelvic fin inserted anterior to dorsal-fin origin; snout length 50.6–57.5 % of head length; eye diameter 12.3–15.4 % of head length; caudal peduncle length 25.1–27.1 % of standard length; anal fin with five branched rays; lower lip greatly furrowed with two thick lateral lobes; and body smooth or scaleless.

Key words: *Triplophysa*, new species, upper Yangtze River drainage, Sichuan Province

Introduction

The nemacheiline loach genus *Triplophysa* Rendahl, 1933 (type species: *Nemacheilus hutjerjuensis* Rendahl, 1933) is found on the Qinghai-Xizang Plateau and adjacent areas. The genus is absent from the southern slope of Himalayas, and the only Indian localities are in the upper portion of the Indus River drainage in Jammu and Kashmir, and Lahul and Spiti (Himachal Pradesh) (Kullander *et al.*, 1999). It occurs in the Red River (Yuan Jiang), upper and middle Yangtze River (Chang Jiang), Pearl River (Zhu Jiang) and Yellow River (Hwang He) drainages of China, upper Indus and Tigris River drainages of West Asia, and also in river drainages of Central Asia (Zhu, 1989; Zhou and Cui, 1997). *Triplophysa* is a species-rich genus uniquely characterized by having marked sexual dimorphism in which males have tubercle-bearing, elevated skin on both sides of the head, and a thickened tuberculated pad on the dorsal surfaces of the broadened and widened pectoral-fin rays. Presently, *Triplophysa* consists of about 116 currently recognized species, 99 of which have so far been documented from China (Yang *et al.*, 1986, Ding, 1993; Li and Zhu, 2000; Prokofiev, 2003, 2007a; Chen *et al.*, 2004a, b; Li, 2004; Yang *et al.*, 2004; Froese and Pauly, 2007; Li *et al.*, 2007). Among Chinese species of *Triplophysa*, about 23 are currently identified from Sichuan Province, South China. From Ding's (1994) report on the freshwater fish fauna of Sichuan Province including Chongqing City, 18 species of *Triplophysa* has been recognized; another five species were later added (Ding, 1993; Ding and Lai, 1996; Ding *et al.*, 1996; Prokofiev, 2001).

Field surveys conducted during July, 2006 and 2007 in the Zagunao River, a tributary on the western bank of the Min Jiang flowing to the upper Yangtze River drainage, at Lixian County of Aba Prefecture, Sichuan

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