



A review of the Nemacheilinae genus *Oreonectes* Günther with descriptions of two new species (Teleostei: Balitoridae)

LI-NA DU^{1,2}, XIAO-YONG CHEN^{1,3} & JUN-XING YANG^{1,3}

¹Department of Systematic Zoology, Kunming Institute of Zoology, The Chinese Academy of Sciences, Kunming, Yunnan, 650223, P. R. China

²Graduate School of Chinese Academy of Sciences, Beijing, 100039, P. R. China

³Corresponding authors. E-mail: chenxy@mail.kiz.ac.cn; yangjx@mail.kiz.ac.cn

Abstract

The loach genus *Oreonectes* is reviewed in this study. Six valid species are recognized, including two new species. *Oreonectes polystigmus* sp. nov., and *Oreonectes microphthalmus* sp. nov. are described from the Guangxi Zhuang Autonomous Region, China. Among its congeners, *O. polystigmus* is most similar to *O. platycephalus* in morphology. It can be distinguished from all its congeners by an incomplete lateral line with 6–8 pores; a cephalic lateral-line system with 7 supraorbital and 4–7 infraorbital pores; sexual dimorphism (males have a genital papilla located immediately posterior of the anus, and the gonad is opened at the end of a fleshy prominence); and a body with many differently shaped spots. *Oreonectes microphthalmus* is most similar to *O. furcocaudalis* in morphology. It can be distinguished from all congeners by its degenerate eyes, which only have black pigment; a cephalic lateral-line system with 2+2 supratemporal, 7 supraorbital, 3+0 infraorbital and 8 preoperculomandibular pores; and an incomplete lateral line with 3 pores. A key to all valid *Oreonectes* species is provided. The validity of some related species is discussed. *Nemacheilus liboensis*, *Oreonectes liboensis* and *Oreonectes translucens* are all proved to be synonyms of *Paracobitis longibarbatulus*, and *Paracobitis longibarbatulus* is actually a species of *Triplophysa*.

Key words: Nemacheilinae; *Oreonectes*; Guangxi; China

Introduction

Genus *Oreonectes* Günther 1868, assigned to the subfamily Nemacheilinae of Balitoridae, mainly occurs in southern China with one species expanding to northern Vietnam (Zheng, 1981; Zhu and Cao, 1987; Zhu, 1989; Lan, et al., 1995; Kottelat, 2001; Zhang, 2005). *Oreonectes* shares a common character with several genera of Nemacheilinae, such as *Lefua* Herzenstein, *Yunnanilus* Nichols and *Barbatula* Linck, in that the anterior and posterior nostrils are separated from each other by a short distance. *Oreonectes* is distinguished from *Lefua* by several characteristics: the head and caudal peduncle are compressed versus whole body compressed; the lower lip is smooth or slightly furrowed versus papillate; the lateral-line is incomplete or absent versus absent; a longitudinal black stripe from the upper edge of the gill opening or vertical from the dorsal fin to the middle of caudal fin base versus from the snout to the caudal fin; and caudal fin rounded, forked or emarginate versus rounded. Furthermore, *Oreonectes* is a warm-water fish, occurring in southern China and northern Vietnam versus a cold-water fish, and occurring in northern China, Korea, Japan and Russia. *Oreonectes* can be distinguished from *Yunnanilus* by the following characteristics: the anterior nostril is tube-like and elongate versus short and tube-like; the head is compressed versus depressed; the caudal-adipose keel is present versus absent; the lower lip is smooth or slightly furrowed versus strongly furrowed. The genus *Ore-*