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A new species of *Paramesotriton* (Caudata: Salamandridae) from Guizhou Province, China

XIAOMING GU^{1,5}, RONGRONG CHEN², YINGZHOU TIAN³, SONG LI³ & JINGCHENG RAN⁴

¹ School of Life Sciences, Guizhou Normal University, 180 N Baoshan Rd, Guiyang, Guizhou, China 550001.

² Molecular Biology Unit of King's College London, London UK

³ Department of Biology, Liupanshui Normal College, Shuicheng, Guizhou China 553004

⁴ The Administration Bureau of Maolan National Nature Preservation, Libo, Guizhou China 558400

⁵ Corresponding author: E-mail: gxmswx@163.com

Abstract

In this study, we describe a new species of salamander, *Paramesotriton maolanensis* sp. n., from the Maolan National Nature Reserve, Libo County, Guizhou Province, China. The new species is placed in the genus *Paramesotriton* based on morphological characteristics and molecular data. It differs from all other members of the genus in a number of morphological characteristics, especially in its much larger body size, absence of granular warts from head and body, largely reduced external eyes and peculiar shape of epibranchia in hyoid apparatus. We examined the relationships of nuclear POMC haplotypes between and within the new species and six recognized species. POMC variation and published mitochondrial data suggested that the new species' closest known relatives are *P. longliensis*, *P. zhijinensis* and *P. caudopunctatus*, and it should be placed into the *P. caudopunctatus* species group or subgenus *Allomesotriton*.

Key words: Caudata; Salamandridae; nuclear DNA; new species; *Paramesotriton maolanensis*

Introduction

The genus *Paramesotriton* (Caudata: Salamandridae), commonly known as the Asian warty newts, currently comprises eleven species: *P. caudopunctatus* Liu and Hu, *P. chinensis* Gray, *P. deloustali* Bourret, *P. fuzhongensis* Wen, *P. guangxiensis* Huang, Tang and Tang, *P. hongkongensis* Myers and Leviton, *P. laoensis* Stuart and Papenfuss, *P. longliensis* Li, Tian, Gu and Xiong, *P. zhijinensis* Li, Tian and Gu, *P. ermizhaoi* Wu, Rovito, Papenfuss and Hanken, and *P. yunwuensis* Wu, Jiang and Hanken. The last four species were described recently (Li *et al.* 2008 a, b; Wu *et al.* 2009, 2010).

One species from Laos initially described in *Paramesotriton* as *P. laoensis* is remarkably different, with a bright dorsal coloration (Stuart & Papenfuss 2002). Weisrock *et al.* (2006) and Zhang *et al.* (2008) suggested that *P. laoensis* constitutes a different lineage from *Paramesotriton*, and a new monotypic genus, *Laotriton*, was proposed for this species (Dubois & Raffaelli 2009). This proposal was followed by Frost (2011) in the Amphibian Species of the World database (ASW), and in Amphibiaweb (<http://www.amphibiaweb.org>, accessed November 2011).

Sparreboom (1983) reported the morphological features, reproduction and egg-laying behavior of *P. caudopunctatus*. Based on morphological and osteological characteristics, Freytag (1983) considered that *P. caudopunctatus* is distinct from congeners and proposed a new genus, *Allomesotriton*, for this species. However, Freytag's taxonomic change proposal has not been accepted widely. Pang *et al.* (1992), Fei *et al.* (2006), and Dubois and Raffalli (2009) considered *Allomesotriton* as a species group or a subgenus within *Paramesotriton*. Recent studies suggested that the *P. chinensis* species group or subgenus *Paramesotriton* includes *P. chinensis*, *P. fuzhongensis*, *P. guangxiensis*, *P. hongkongensis*, *P. deloustali*, *P. ermizhaoi* and *P. yunwuensis*; the *P. caudopunctatus* species group or subgenus *Allomesotriton* comprises *P. caudopunctatus*, *P. zhijinensis*, *P. longliensis* and a newly discovered population (*P. maolanensis* sp. n., the new species described in the paper, for