



A new species of the genus *Paramesotriton* (Caudata: Salamandridae) from Guangxi Zhuang Autonomous Region, southern China

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Abstract

A new species of Asian warty newt, *Paramesotriton ermizhaoi*, is described from Guangxi Zhuang Autonomous Region in southern China. This species is easily distinguished from other congeners by external morphology and osteology. Phylogenetic analyses based on mitochondrial data place *P. ermizhaoi* as a possible sister taxon to *P. hongkongensis* and *P. chinensis*. The number of trunk vertebrae varies from 12 to 13 in the new species. The relationship between *P. ermizhaoi* and a potentially new *Pachytriton* species (*Pachytriton* C), and the Guangxi population of *P. chinensis* is briefly discussed.

Key words: Caudata; Salamandridae; new species; *Paramesotriton ermizhaoi*; southern China

Introduction

New amphibian species are being discovered at an astonishingly high rate worldwide. Recent molecular technologies have accelerated this phenomenon by revealing cryptic species that were once undetected or misidentified by traditional taxonomic approaches (Hanken 1999).

The family Salamandridae ranges over almost the entire Holarctic region, with its diversity centering in temperate Europe and Asia (Duellman & Trueb 1994). In 2002, there were 58 formally described species in this family (Stuart & Papenfuss 2002). By the end of 2008, this number had jumped to 79, an increase of 36% in only six years (AmphibiaWeb). These salamanders comprise 20 genera, 5 of which occur in Asia, including *Cynops* (7 spp.), *Pachytriton* (3 spp.), *Paramesotriton* (9 spp.), *Echinotriton* (2 spp.), and *Tylototriton* (8 spp.) (AmphibiaWeb). The former three genera, recognized as modern Asian newts, form a monophyletic group that is well supported by various molecular data (Titus & Larson 1995; Chan *et al.* 2001; Weisrock *et al.* 2006; Steinfartz *et al.* 2007).

The genus *Paramesotriton*, commonly known as the Asian warty newts, currently comprises nine species, two of which were described recently (Li *et al.* 2008 a, b). The nine species are *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, and *P. zhijinensis* Li, Tian, and Gu. Except for *P. chinensis*, which occurs mainly in southeastern China, all species are distributed in southern China, northern Vietnam and Laos. Monophyly of *Paramesotriton* is not supported by whole-mitochondrial genomic data, with *P. laoensis* consistently grouping with the genus *Pachytriton* (Zhang *et al.* 2008). Intrageneric relationships among species of *Paramesotriton* have been studied, yet they are not fully resolved (Chan *et al.* 2001; Lu *et al.* 2004; Weisrock *et al.* 2006; Zhao *et al.* 2008).