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

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Abstract

We describe a new species of salamander, *Paramesotriton zhijinensis*, from Guizhou Province, China. The generic allocation of the new species is based on morphological and molecular characters. In morphology, it is most similar to *Paramesotriton chinensis* but differs in having distinct gland emitting a malodorous secretion (here named scent gland), a postocular stripe, and two non-continuous, dorsolateral stripes on the dorsolateral ridges. Furthermore, neoteny was observed in most individuals of the new species. This has not been previously reported to occur in any other species of *Paramesotriton*. Analysis of our molecular data suggests that this species a third major evolutionary lineage in the genus *Paramesotriton*.

Key words: Caudata; Salamandridae; *Paramesotriton zhijinensis*; new species; scent gland; Guizhou; China

Introduction

Guizhou Province, located in the southwestern mountainous region of China, is known for its rich amphibian faunal diversity (Liu and Hu 1961). During recent surveys of the Guizhou herpetofauna (July, September, and November, 2006; January and September, 2007), we collected salamanders superficially resembling *Paramesotriton chinensis* (Gray). Similar to *P. chinensis*, these specimens also appeared to be associated with the phenetically defined *P. chinensis* species group of Fei *et al.*(2005). Members of the genus *Paramesotriton* have not been previously collected from Zhijin County, Guizhou. Superficially, our specimens were unique in that most adult individuals appeared to retain larval characteristics, i.e. they were neotenic. Given the new locality and the samalander's distinctive phenotype, we investigated the phylogenetic position and taxonomic status of these specimens.

Presently, the family Salamandridae consists of 20 genera and about 74 described species, mostly occurring in Eurasia and North America, along with a recent expansion into North Africa (http://www.amphibiaweb.org/lists/Salamandridae.shtml). Five genera occur in Asia, including *Cynops*, *Echinotriton*, *Pachytriton*, *Paramesotriton*, and *Tylototriton*. The Asian genera do not form a monophyletic lineage. *Echinotriton* and *Pachytriton*, along with the European and North African genus *Pleurodeles*, form a monophyletic group (Weisrock *et al.* 2006). A second monophyletic lineage includes *Cynops*, *Pachytriton*, and *Paramesotriton*) (Weisrock *et al.* 2006).

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