



A new species of newt of the genus *Paramesotriton* (Salamandridae) from southwestern Guangdong, China, with a new northern record of *P. longliensis* from western Hubei

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Abstract

We report two previously unknown populations of Asian warty newts (Salamandridae: *Paramesotriton*) in China. The first population, from southwestern Guangdong, is described as a new species, which is closely related to *P. guangxiensis* based on morphological and molecular data. The second new population, from western Hubei, is assigned to *P. longliensis*, which extends the known range of this species 400 km northwards. Limited genetic differentiation between *P. longliensis* and *P. zhijinensis* suggests that these two names may refer to the same (single) species.

Key words: Amphibia; salamander; Mitochondrial DNA; phylogenetics; taxonomy

Introduction

The salamandrid genus *Paramesotriton* is popular in the international amphibian pet trade. Their peculiar warty skin and variable color pattern make these salamanders appealing to most herpetological hobbyists. Illegal field collections, however, may seriously threaten natural populations of some species of *Paramesotriton*, especially those with restricted ranges. Indeed, some scientists and conservationists advocate withholding the locality data for newly described species that are potentially valuable in commercial markets (Stuart *et al.* 2006).

Ten species of *Paramesotriton* are currently recognized from southern China, northern Laos and northern Vietnam: *P. caudopunctatus* Liu and Hu; *P. chinensis* Gray; *P. deloustali* Bourret; *P. ermizhaoi* Wu, Rovito, Papenfuss and Hanken; *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. Recent studies suggest that *P. laoensis* constitutes a different lineage from *Paramesotriton* (Weisrock *et al.* 2006; Zhang *et al.* 2008), and a new monotypic genus, *Laotriton*, is proposed for this species (Dubois & Raffaëlli 2009). On the basis of external morphology and osteological characters, Freytag (1983) considered *P. caudopunctatus* to be distinct from congeners and proposed a new genus, *Allomesotriton*, to contain only this species. Freytag's proposed taxonomic change has not received wide acceptance from later workers, who instead recognize *Allomesotriton* as a subgenus or species group within *Paramesotriton* (Pang *et al.* 1992; Fei *et al.* 2006; Dubois & Raffaëlli 2009).

The first species of *Paramesotriton* was described 150 years ago (Gray 1859), and an additional five species were described over the next 140 years. Four new species, however, have been reported in just the last ten years (Stuart & Papenfuss 2002; Li *et al.* 2008a, b; Wu *et al.* 2009). This recent surge suggests that species-level diversity within *Paramesotriton* may remain underestimated, especially in poorly surveyed areas of Southeast Asia. Here we present a molecular and morphological analysis of the taxonomic status of two previously unreported populations of *Paramesotriton* from China. We describe one population as a new species and identify the other population as a new record of the recently described *P. longliensis*.