



A new cave-dwelling species of *Cyrtodactylus* Gray, 1827 (Squamata: Gekkonidae) from Khammouane Province, southern Laos

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Abstract

A new cave-dwelling bent-toed gecko, *Cyrtodactylus lomyenensis* **sp. nov.** is described from a karst forest in Gnommalath District, Khammouane Province, southern Laos. It differs from all other species of Indochinese-Thai *Cyrtodactylus* in the following combination of characters: maximum SVL of at least 71.2 mm; head dorsum yellowish with irregular brown blotches; presence of a brown nuchal loop reaching the posterior edge of the orbit; four narrow yellowish-cream transversal bands with irregular anterior and posterior black edges on a brown background between limb insertions; no precloacal groove; 39–40 precloacal-femoral pores in males, arranged in a continuous row; females with 32 precloacal-femoral pores in a continuous row, smaller than those of males; five postanal tubercles on each side; 16–18 subdigital lamellae on first toe; 19–23 subdigital lamellae on fourth toe; no tubercles on tail dorsum; and a median row of enlarged subcaudal scales.

Key words: *Cyrtodactylus*, Gekkonidae, description, new species, Khammouane, Laos, cave-dwelling

Introduction

Stuart (1999) reported that the gecko fauna of Laos consisted of ten species, including two *Cyrtodactylus*, *C. interdigitalis* Ulber and *C. jarujini* Ulber. David *et al.* (2004) described an additional species, *Cyrtodactylus buchardi*, based on a single juvenile specimen collected in Xepian National Biodiversity and Conservation Area in Champasak Province, Southern Laos. Grismer (2010) added a new genus to the Lao gecko fauna while describing *Cnemaspis laoensis* from Dong Phu Vieng National Protected Area in Savannakhet Province. Nguyen *et al.* (2010) also added a new species, *Cyrtodactylus wayakonei*, from Northern Laos. This gives a current total of only 13 gecko species recorded for the whole country. The low *Cyrtodactylus* diversity reported so far from Laos, adjacent to Thailand and Vietnam which harbor a comparatively rich gecko fauna (respectively 19 and 20 species, see e.g., Bauer *et al.* 2010, Ngo *et al.* 2010), is most probably an artifact due to a lack of field surveys.

In April 2010, one of us (NVT) conducted dedicated field surveys, especially in karst areas known elsewhere to harbor many geographically restricted gecko taxa. Numerous karst hills scattered from the Vietnam—Laos border to Thakhek town running northwestwards in Khammouane Province contain an abundance of caves. Four specimens of a medium-sized slender gecko taxon were collected from Lomyen Cave, on a forested karst outcrop in the Gnommalath District, Khammouane Province, southern Laos. This gecko species, with its vertical pupils and bent toes, belongs to the genus *Cyrtodactylus* Gray, 1827 but shows a distinct combination of characteristics and cannot be assigned to any previously described species; we consequently describe it herein as new.

Material and methods

Field work took place on 26–30 April 2010. Geographical coordinates were taken with a Garmin III GPS. Specimens were photographed using a LINUX DMC – FZ30 digital camera. Liver tissue was taken prior to preservation