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A new species of the genus *Calotes* Cuvier, 1817 (Squamata: Agamidae) from southern Vietnam

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Abstract

We describe a new species of the agamid genus *Calotes* Cuvier, 1817 from southern Vietnam, which is most similar to *Calotes mystaceus* Duméril & Bibron, 1837, but can be distinguished from the latter and its other congeners by genetic and morphological differences. We discuss the current distribution of the new species and its sister species *C. mystaceus* in Mainland Southeast Asia.

Key words: Squamata, Agamidae, *Calotes* sp. nov., *Calotes mystaceus*, taxonomy, Vietnam, COI, multivariate morphometric analysis

Introduction

The genus *Calotes* Cuvier, 1817 currently contains 23 species (Vindum *et al.* 2003; Zug *et al.* 2006; Krishnan 2008). Besides the widespread *Calotes versicolor* (Daudin, 1802), which natively inhabits an enormous area from East Iran throughout Asia to Indonesia (Sumatra), the majority of species in the genus *Calotes* are restricted to relatively small geographical regions in India, Sri Lanka and Myanmar (Hallermann 2000). In mainland Southeast Asia, a recently increased number of seven species is known to occur (*C. chincolium* Vindum, 2003; *C. htunwini* Zug & Vindum, 2006; *C. irawadi* Zug, Brown, Schulte & Vindum, 2006; *C. jerdoni* Günther, 1870), of which only three species are known from Thailand and Indochina (*C. emma* Gray, 1845; *C. mystaceus* Duméril & Bibron, 1837; *C. versicolor* (Daudin, 1802)) (Zug *et al.* 2006).

Early faunal publications (Morice 1875; Tirant 1885; Bourret 1927) listed two more species of *Calotes* for Cochinchina (today: southern Vietnam): *Calotes rouxii* Duméril & Bibron, 1837 and *Calotes ophiomachus* Duméril & Bibron, 1837 (currently recognized as a junior synonym of *Calotes calotes* (Linnaeus, 1758)). However, these records were obviously based on misidentifications, as both species are nowadays restricted to the Indian subcontinent including Sri Lanka (Manthey 2008; Uetz *et al.* 2012).

During recent field work in southern Vietnam specimens of the genus *Calotes* were collected and based on their general morphology we preliminary assigned them to *Calotes mystaceus* originally described by Duméril and Bibron (1837) from Myanmar [“Pays de Birmans”]. According to recent reviews on the lizard fauna of Vietnam (Bobrov & Semenov 2008; Nguyen *et al.* 2009), *C. mystaceus* is indicated as a widespread species found mostly in the southern parts of the country (from Kien Giang Province in the south to Thua Thien-Hue in central Vietnam) and several isolated records known from the north (Lang Son, Son La and Nghe An Provinces).