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Two new species of *Cyrtodactylus* (Squamata: Gekkonidae) from the karst forest of Hoa Binh Province, Vietnam

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Abstract

We describe two new species of the genus *Cyrtodactylus* on the basis of a new reptile collection from the limestone karst forest of Hoa Binh Province, northwestern Vietnam. *Cyrtodactylus otai* **sp. nov.** from Hang Kia—Pa Co Nature Reserve and *Cyrtodactylus bobrovi* **sp. nov.** from Ngoc Son—Ngo Luong Nature Reserve can be distinguished from each other and from their congeners by their genetic distinction and morphological differences in number of preloacal pores, femoral scales, ventral scales, lamellae, subcaudals and dorsal tubercle arrangement, as well as in size and color pattern. In phylogenetic analyses, both new species are nested in a clade containing taxa from northwestern and northcentral Vietnam and northern Laos, i.e., *C. bichnganae* and *C. cf. martini* from northwestern Vietnam, *C. puhuensis* from northcentral Vietnam, and *C. spelaus*, *C. vilaphongi*, and *C. wayakonei* from northern Laos.

Key words: *Cyrtodactylus otai* **sp. nov.**, *Cyrtodactylus bobrovi* **sp. nov.**, limestone karst, molecular phylogeny, taxonomy, Hang Kia—Pa Co, Ngoc Son—Ngo Luong.

Introduction

Members of the genus *Cyrtodactylus* have a wide distribution, ranging throughout tropical South Asia, Indochina, the Philippines, the Indo-Australian Archipelago, and the Solomon Islands in the East (Bauer & Henle 1994). Over the last five years, a total of 67 new species of *Cyrtodactylus* have been described, and Vietnam is recognized as a hotspot of new discoveries (Uetz & Hošek 2015). The knowledge about species diversity of this genus in the country has dramatically increased from three in 1997 to 35 at present (Nguyen *et al.* 2014; Phung *et al.* 2014; Schneider *et al.* 2014b). A major factor for the high species richness of Bent-toed Geckos in Vietnam is the presence of a large area of limestone karst forest, which is most extensive in the northern and central regions. In addition, numerous populations of species complexes have been recently assigned as distinct taxa. For instance, 10 new species have been described within the *Cyrtodactylus irregularis* species complex over the last ten years (Nguyen *et al.* 2013; Schneider *et al.* 2014b).

Our recent field work in karst forests of northwestern Vietnam led to the discovery of two unnamed species of *Cyrtodactylus* from Hang Kia—Pa Co and Ngoc Son—Ngo Luong nature reserves in Hoa Binh Province. Based on morphological and molecular phylogenetic data, we herein describe them as new species from Vietnam.