A new species of the *Gekko japonicus* group (Squamata: Sauria: Gekkonidae) from the border region between China and Vietnam

TRUONG QUANG NGUYEN¹,², YING-YONG WANG³, JIAN-HUAN YANG⁴, TANJA LEHMANN⁵, MINH DUC LE⁶,⁷,⁸, THOMAS ZIEGLER⁵ & MICHAEL BONKOWSKI²

¹Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology, 18 Hoang Quoc Viet, Hanoi, Vietnam. E-mail: nqt2@yahoo.com
²Department of Terrestrial Ecology, Zoological Institute, University of Cologne, Zülpicher Strasse 47b, D-50674 Cologne, Germany. Email: m.bonkowski@uni-koeln.de
³The Museum of Biology, Sun Yat-sen University, 135 Xingangxi Road, Guangzhou 510275, P. R. China. Email: wangyy@mail.sysu.edu.cn
⁴Kadoorie Conservation China, Kadoorie Farm and Botanic Garden, Lam Kam Road, Tai Po, Hong Kong SAR, P. R. China. Email: philautus@yahoo.com
⁵AG Zoologischer Garten Köln, Riehler Straße 173, D-50735 Köln, Germany. E-mail: lehmannsja82@googlemail.com and ziegler@koelnerzoo.de
⁶Faculty of Environmental Sciences, Hanoi University of Science, Vietnam National University, 334 Nguyen Trai Road, Hanoi, Vietnam. Email: le.duc.minh@hus.edu.vn
⁷Centre for Natural Resources and Environmental Studies, Hanoi National University, 19 Le Thanh Tong, Hanoi, Vietnam
⁸Department of Herpetology, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024
⁹Corresponding author

Abstract

We describe a new species of the genus *Gekko* on the basis of 25 specimens from southern China and northern Vietnam. *Gekko adleri* sp. nov. is distinguished from the remaining congeners by a combination of the following characters: size moderate (SVL<80 mm); nares in contact with rostral; internasal single, smaller than supranasal; postmentals enlarged; interorbital scales between anterior corners of the eyes 27–36; dorsal tubercle rows 7–11; ventral scales between mental and cloacal slit 168–190; midbody scale rows 123–144; ventral scale rows 35–44; subdigital lamellae on first toe 11–14, on fourth toe 11–15; finger and toe webbing present at base; tubercles absent on upper surface of fore limbs; tubercles on tibia 0–8; precloacal pores 17–21 in males; postcloacal tubercle single; tubercles present on dorsal surface of tail base; subcaudals enlarged; dorsal surface of body with four or five narrow light bands between shoulder and sacrum.

**Key words:** *Gekko*, phylogeny, taxonomy, Cao Bang Province, Guangxi Zhuang Autonomous Region

Introduction

The *Gekko japonicus* group is the most diverse group in the genus *Gekko* with a total of 19 recognized species, which have distributions in eastern Asia, from Japan throughout eastern China southward to Vietnam (Rösler et al. 2011). The members of this group are characterized by a moderate size; nare usually in contact with rostral; two or three nasals; 0–21 rows of dorsal tubercles; 0–32 precloacal pores; 1–4 postcloacal tubercles; the webbing between fingers and toes weakly to extensively developed; lateral folds without tubercles; enlarged subcaudals; and vertebral region with large, light flecks, blotches or bands (Rösler et al. 2011).

During recent field work in the karst forests of Guangxi Zhuang Autonomous Region, southern China and of Cao Bang Province, northern Vietnam, we collected a number of specimens of an unnamed gekkonid species, which can be assigned to the *Gekko japonicus* group based on morphological features and phylogenetic analysis. Herein, we describe it as a new species.