



A new endemic rock Gecko *Cnemaspis* Strauch 1887 (Squamata: Gekkonidae) from Gunung Jerai, Kedah, northwestern Peninsular Malaysia

CHAN KIN ONN^{1,2,8}, L. LEE GRISMER², SHAHRUL ANUAR³, EVAN QUAH³,
MOHD ABDUL MUIN⁴, ANNA E. SAVAGE⁵, JESSE L. GRISMER⁶,
NORHAYATI AHMAD⁷, ANA-CAROLINE REMIGIO², & LEE F. GREER²

¹Institute for Environment and Development (LESTARI), Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor Darul Ehsan, Malaysia. E-mail: kin_om@yahoo.com

²Department of Biology, La Sierra University, 4500 Riverwalk Parkway, Riverside, California, 92515-8247 USA

³School of Biological Sciences, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia

⁴Centre for Drug Research, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia

⁵Department of Ecology and Evolutionary Biology, E145 Corson Hall, Cornell University, Ithaca, New York, 14853 USA

⁶Department of Biology, Villanova University, 800 Lancaster Avenue, Villanova, Pennsylvania, 92108 USA

⁷School of Environment and Natural Resource Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia 43600 Bangi, Selangor Darul Ehsan, Malaysia

⁸Corresponding author

Abstract

A new species of endemic *Cnemaspis* is described from Gunung Jerai (also known as Kedah Peak) in the northwestern state of Kedah, Peninsular Malaysia. *Cnemaspis harimau* sp. nov. differs from all other Sundaland congeners except *C. affinis*, *C. biocellata*, *C. kumpoli*, *C. mcguirei*, *C. pseudomcguirei*, and *C. shahruli* in having a black shoulder patch with a white or yellow ocellus anteriorly located. It is most similar in appearance to its sister species, *C. affinis*, but differs by having a smaller maximum SVL of 40.7 mm vs. 50.8 mm; three vs. five postmentals; caudal tubercles encircling vs. not encircling tail; lateral caudal tubercles on anterior 25% of tail highly spinose and protruding vs. slightly spinose; and an overall higher degree of scale keeling (most prominent on the tail). The discovery of another montane endemic once again highlights the understudied nature of Peninsular Malaysia's extensive mountain ranges.

Key words: *Cnemaspis harimau*, Gunung Jerai, herpetofauna, Kedah Peak, new species, taxonomy

Introduction

The Southeast Asian gekkonid genus *Cnemaspis* has seen a significant upsurge in diversity over the last seven years due to new discoveries and taxonomic revision. As a result, five new species have been described from Vietnam (Grismer & Ngo 2007; Grismer *et al.* 2010b), one from Cambodia (J. Grismer *et al.* 2010); one from Borneo (Grismer & Chan 2009), seven from Thailand (Grismer *et al.* 2010c, one from Laos (Grismer 2010); and 12 from Peninsular Malaysia and its associated archipelagos (Chan & Grismer, 2008; Das & Grismer 2003; Grismer & Chan, 2008; Grismer & Chan 2010; Grismer & Das, 2006; Grismer *et al.* 2008a,b, 2010a; Grismer *et al.* 2009). Prior to 2003, Peninsular Malaysia only had four known species of *Cnemaspis* [*C. affinis* (Stoliczka), *C. argus* Dring, *C. flavolineata* (Nicholls), *C. kendallii* (Gray)] but this figure has since increased to 17 species, with at least three more that are in the process of being described (see previous references). These 17 species are for the most part localized, each of them showing preference to a particular lifestyle or habitat type. Karst-dwelling species are represented by *C. bayuensis* Grismer, Grismer, Wood & Chan, *C. karsticola* Grismer, Grismer, Wood & Chan, *C. monachorum* Grismer, Ahmad, Chan, Belabut, Muin, Wood & Grismer, and *C. biocellata* Grismer, Chan, Nasir & Sumontha; island endemics: *C. affinis*, *C. pemanggilensis*