



A new species of *Takydromus* (Squamata: Lacertidae) from northeast India

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Abstract

The diversity of lizards in the northeast Indian biodiversity hotspot is underestimated, as evidenced by many new species recorded in recent years. Here, we describe a new species of *Takydromus* from Ultapani, Kokrajhar District, Assam, India. This newly identified species is distinguished from its relatives in its distinctive morphological features and significant genetic variation in the mitochondrial 12S rRNA and COI genes. We have also added the missing molecular data for *T. sikkimensis* and *T. khasiensis*. In the light of these new data, we discuss the phylogenetic relationships of *Takydromus* species from the Indian subcontinent with their congeners.

Key words: Asian grass lizard, genetic divergence, phylogeny, range expansion, *Takydromus*, Ultapani

Introduction

The Asian grass lizard genus *Takydromus* Daudin, 1802, comprises 25 species worldwide (Rai *et al.* 2023; Guo *et al.* 2024; Uetz *et al.* 2024) and are distributed across the Oriental and Eastern Palaearctic regions. The genus has been recorded in East Asian countries (China, Hong Kong, Taiwan, Korea and Japan), Southeast Asian countries (Indonesia, Malaysia, Laos, Myanmar, Cambodia, Thailand and Vietnam) and other countries including Russia, Bangladesh, and India (Wang *et al.* 2019; Uetz *et al.* 2024). Ten species of *Takydromus* have been recorded from mainland China, namely *Takydromus guilinensis* Guo *et al.* 2024, *T. yunkaiensis* Wang *et al.* 2019, *T. albomaculosus* Wang *et al.* 2017, *T. amurensis* Peters, 1881, *T. intermedius* Stejneger, 1924, *T. kuehnei* Van Denburgh, 1909, *T. septentrionalis* Günther, 1864, *T. sexlineatus* Daudin, 1802, *T. sylvaticus* Pope, 1928, and *T. wolteri* Fischer, 1885 (Zhao *et al.* 1999; Cai *et al.* 2011; Wang *et al.* 2019). In addition, six species namely *T. formosanus* Boulenger, 1894, *T. hsuehshanensis* Lin & Cheng, 1981, *T. lueyanus* Lue & Lin, 2008, *T. sauteri* Van Denburgh, 1909, *T. stejnegeri* Van Denburgh, 1912, and *T. viridipunctatus* Lue & Lin, 2008 are endemic to Taiwan; and *T. dorsalis* Stejneger, 1904, *T. smaragdinus* Boulenger, 1887, *T. tachydromoides* Schlegel, 1838, and *T. toyamai* Takeda & Ota, 1996 are known only from Japan. Similarly, *T. hani* Chou, Truong & Pauwels, 2001 and *T. madaensis* Bobrov, 2013 are known only from Vietnam. *Takydromus guilinensis* was more recently discovered in 2024 from Guangxi province, South China, bringing the total number of *Takydromus* species to 25 (Guo *et al.* 2024). *Takydromus* is distributed in India only in the northeast, though recent studies have reported it from the Gangetic plains of West Bengal (Das *et al.* 2019; Mothey *et al.* 2022). In India, *Takydromus* is represented by four species: *T. haughtonianus* Jerdon, 1870, *T. khasiensis* Boulenger, 1917, *T. sexlineatus* Daudin, 1802, and *T. sikkimensis* Günther, 1888.

Takydromus khasiensis has been reported from the northeast states of Assam, Meghalaya, Nagaland, Mizoram, Tripura and West Bengal (Das *et al.* 2019). *Takydromus sexlineatus* has been reported from Assam, Meghalaya, Mizoram and Arunachal Pradesh (Pawar & Birand 2001; Lalrinchhana & Solanki 2015). *Takydromus sikkimensis* was initially recorded only in Sikkim by Bhupathy *et al.* (2009), but has recently been reported from neighbouring