



New record of Termite Hill Gecko, *Hemidactylus triedrus* (Daudin, 1802) from Tamilnadu, India

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Abstract

Hemidactylus is the second most species-rich genus in geckos which are widely spread to the tropical regions of the world. *Hemidactylus*, a genus of reptiles that includes the house geckos, is a diverse one with about 150 species spread over a wide geographic range. The *Hemidactylus triedrus* is also known as Termite hill gecko, Dakota's leaf-toed gecko & blotched house gecko, which belongs to the family Gekkonidae. A new record for *Hemidactylus triedrus* (Daudin, 1802), Ariyalur district, Tamilnadu state, India with distribution and their notes.

Keywords: *Hemidactylus* genus, New record, Reptile, Tamilnadu

Introduction

Termite hill gecko (*Hemidactylus triedrus*) is endemic to Southern Asia found in Srilanka and India (Allen and Richard 1996). The species was described by Daudin (1802) based on species collected from Southern India. *Hemidactylus* is the second most species-rich genus in geckos which are widely spread to the tropical regions of the world. The *Hemidactylus triedrus* is also known as Termite hill gecko, Dakota's leaf-toed gecko & blotched house gecko, which belongs to the family Gekkonidae. This species of gecko are found in Southern regions of Asia (Samal *et al*, 2020).

The remaining *Hemidactylus* geckos of India belong to two other geographical clades representing the Southeast Asian and West-Asian arid zone species (Bansal *et al.*, 2010). Prior work done involves the



discovery of ten *Hemidactylus* species from Andhra Pradesh, viz., *H. brookii*, *H. frenatus*, *H. giganteus*, *H. gracilis*, *H. leschenaultii*, *H. reticulatus*, *H. subtriedrus*, *H. triedrus*, *H. treutleri*, *H. flaviviridis* (Javed *et al.*, 2011), two *Hemidactylus* species from near Madras, viz., *H. maculatushunae* and *H. scabriceps* (Mahony, 2009). *H. maculates* has also been reported from localities across the Western Ghats of Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, Kerala, and Tamil Nadu (Javed *et al.*, 2011).

H. triedrus comprises a group of closely related species spread over a wide geographical area including parts of Pakistan, India, and Sri Lanka. Several species were thought to represent *H. triedrus* leading to taxonomic confusion, which has now been successfully resolved. The gekkonid lizard genus *Hemidactylus* is one of the most speciose genera in the family, with at least 124 species described. Of these, at least 26 species occur in India (Utez and Hosek 2013; Mirza and Sanap, 2014). Herpetofaunal surveys carried out in the recent past have resulted in the detection of *Hemidactylus* species hitherto unknown from the country, and have extended the distribution ranges of several taxa on the mainland (Srinivasulu and Das, 2008; Ganesh and Chandramouli, 2009; Agarwal, Giri and Bauer, 2011; Mirza and Sanap, 2014).

Recently the species has been reported from Pench Tiger Reserve on 13th December 2019 (TOI 2019). India represents about twenty-five recognized *Hemidactylus* species (Venu 2016) and about five *Hemidactylus* species are reported from Odisha as *Hemidactylus fleviviridis*, *Hemidactylus frenatus*, *Hemidactylus brookii*, *Hemidactylus leschenaultia*, and *Hemidactylus* sp. (Pradhan *et al.* 2014; Dutta *et al.* 2009).

In the current note, we focus on the distribution of *Hemidactylus triedrus*. So far, this species has been recorded from Ariyalur district, Tamilnadu state, India. This paper is based on the distribution of *Hemidactylus* species and extensive field surveys conducted.

Materials and Methods

Study area

Termite hill gecko found from Vettriur village (10°58'57.2"N 79°05'49.8"E) in Thirumanur Block in Ariyalur District of Tamil Nadu State, India. It is located 19 KM towards South from District head quarters Ariyalur. Near to 5 km reached the famous longest river in Thirumanur. In this village temples is Sris Maha Mariamman, Lord Murugan, Sivan temple has celebrated every month Maha Shivaratri poojas. Figure 1. showing the study area Vetriur village, Ariyalur district, Tamilnadu states, India. This Place is on the border of the Ariyalur district and Thanjavur District. This species was identified based on the photographs and captured on 13/06/2021 at 8.00 PM.

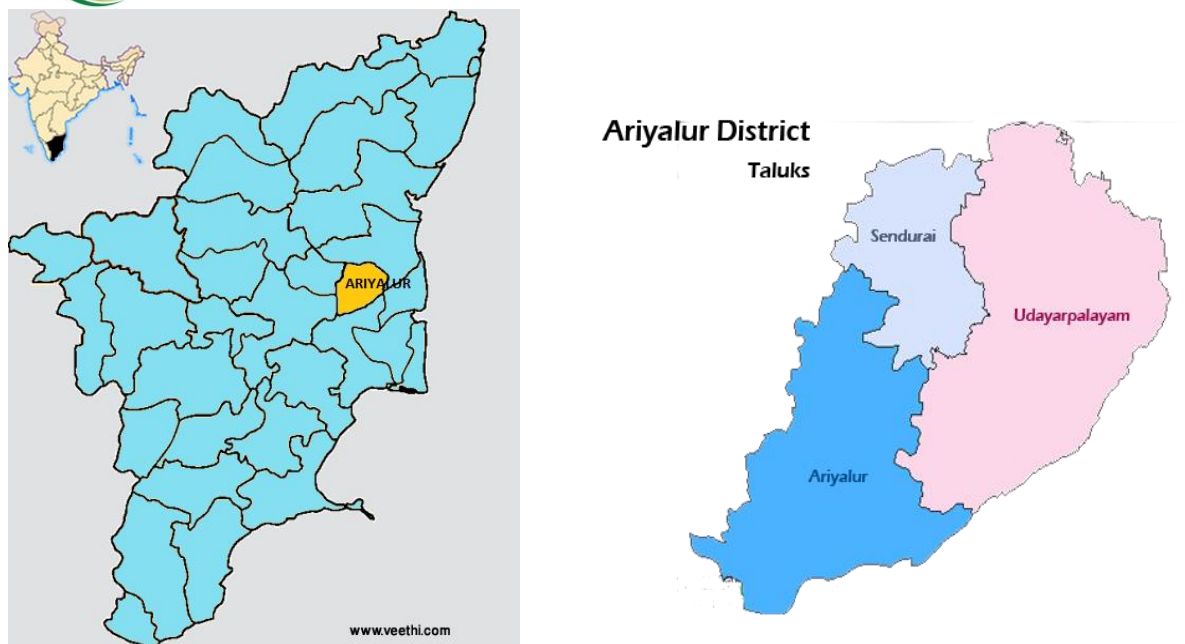


Figure 1: A map showing study area at Vetriyur village, Ariyalur district, Tamilnadu state, India



Figure 1: Termite hill gecko *Hemidactylus triedrus*



Discussion

Phylogenetic relationships within *Hemidactylus* reveal major endemic radiation in South Asia and are largely concentrated in India and Sri Lanka (Bauer *et.al.*, 2010). *H. triedrus* was considered to be widespread across India and Sri Lanka and parts of Pakistan despite that there were three distinct and diagnosable populations based on morphology alone. This taxonomic flux largely arose likely from the fact that most authors who revised this taxon did not examine the type specimen of *H. triedrus* and/or specimens that were used for molecular work, which led to the description of *H. subtriedrus* and *H. lankae* as well as an unjustified elevation to a species rank from its sub-specific status of the latter two species by Bauer *et.al.*, (2010).

Recently, herpetological surveys in northern Eastern Ghats of Andhra Pradesh yielded sightings of Jerdon's Gecko *Hemidactylus subtriedrus* Jerdon, 1853. Little is known about its distribution and taxonomic status. This species closely resembles the Termite Hill Gecko *Hemidactylus triedrus* and it has often been taxonomically confused with it (Javed *et.al.*, 2009).

Hemidactylus triedrus is being reported for the first time from Bulajhar reserve forest of Angul, Odisha. This find of *Hemidactylus triedrus* in Bulajhar reserve forest confirms its occurrence and establishes a new locality record in state Odisha and the range extension of this species. *Hemidactylus triedrus* was recorded previously from localities of Andhra Pradesh, Karnataka, Maharastra, Pondicherry & Tamil Nadu (Khandekar *et.al.*, 2020). This paper reported the first time record of figure 2. *Hemidactylus triedrus* species from vetriyur village, Ariyalur district, Tamilnadu state, India.

A common practice for naturalists and even taxonomists during biodiversity surveys is to overlook the subtle difference in commonly distributed species and attribute them to a readily available name when the species in question might not be what it has been considered (Zug *et.al.*, 2006). Further monitoring will be required to determine if *Hemidactylus triedrus* will expand out of the limited areas it currently occupies in this region and also to assess the nature of its ecological interactions with native geckos.

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