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## The systematic status of the endemic south Indian gecko *Hemiphyllodactylus aurantiacus* (Beddome, 1870)

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### Abstract

*Hemiphyllodactylus aurantiacus* (Beddome, 1870), hitherto considered a subspecies of the more widespread *H. typus*, is shown to be a distinct species, diagnosable in showing a lower number of scapulars and presacral vertebrae and bolder dorsal and subcaudal coloration. The two species are allopatric. New ecological data are provided of the south Indian endemic from the type locality, where the species was found commonly on walls of buildings at night.

Keywords: *Hemiphyllodactylus aurantiacus*, *H. typus*, systematics, distribution, morphology, natural history.

### Introduction

Despite its widespread occurrence in south and south-east Asia and the islands of the Pacific (Smith, 1935; Denzer and Manthey, 1991; Manthey and Grossmann, 1997; Zug, 1991), the genus *Hemiphyllodactylus* Bleeker, 1860 remains one of the most poorly known genera of geckos. Specimens from most areas are rare in museum collections and misidentifications are common. Two forms have been recorded from south Asia by most recent workers (Wermuth, 1965; Kluge, 1991, 1993; Bauer and Henle, 1994), *H. typus typus*, a widespread species complex containing both bisexual and unisexual populations with representatives in Sri Lanka, and *H. t. aurantiacus*, a bisexual south Indian endemic.

*Hemiphyllodactylus aurantiacus* was originally described by Beddome (1870) as a member of the genus *Hemidactylus*, a generic assignment retained by Stoliczka (1872). It was subsequently removed to *Lepidodactylus* by Boulenger (1885, 1890). Stejneger (1899), who had examined no specimens of *aurantiacus*, tentatively reallocated the form to *Hemiphyllodactylus*. In his revision of the genus, Brongersma (1932), who examined only two specimens putatively referable to *H. aurantiacus*, recognized the species as distinct from *H. typus* on the basis of its reduced number of enlarged, paired distal subdigital lamellae and its broadly pentagonal mental scale. Smith (1935), based largely on the earlier

works of Boulenger, noted the shorter and less depressed head of the Indian form, the presence on only 2–3 obliquely angled lamellae beneath the fourth toe (vs 4–6 in *H. typus*), and the lower number of preanal and femoral pores (7–9 and 5–7 vs 10–12 vs 8–10 in *H. typus*). Nonetheless, Smith relegated the form to subspecific status as *Hemiphyllodactylus typus aurantiacus*, the designation that has been nearly universally applied to it since. Kluge (1968), however, listed *aurantiacus* as a species inquirendum.

Beddome's (1870) type material of *Hemidactylus aurantiacus* originated from the "Shevaroyes, under stones about Yercaud and elsewhere, at an elevation of 4,000 feet." He also indicated that he had an additional specimen from the Anamallays (= Anaimalais, ca. 10° 18'N; 77° 00'E, north-west of Yercaud, in the Western Ghats). Little new material of this species was reported in the literature for more than a century. Aside from its inclusion in regional herpetofaunal works (e.g., Smith, 1935; Daniel, 1983; Murthy, 1985) almost no mention was made of this form until 1994 when a brief note (Daniels, 1994) appeared, documenting the occurrence of this gecko (as *H. t. aurantiacus* [sic]) at Bangalore, slightly north of its previously known range, and at lower elevation (900 m). Subsequently, additional survey work has revealed it to be widespread in the Kolli Hills, near Salem (Daniels and Kumar, 1998).