

# Sexual dimorphism in the Persian Gecko, *Hemidactylus persicus* Anderson, 1872, in Hormozgan Province, Southern Iran

(Sauria: Gekkonidae)

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**Abstract.** 48 specimens (28 females and 20 males) of the Persian gecko, *Hemidactylus persicus* Anderson, 1872 were studied metrically and meristically to determine the sexual dimorphism in males and females. Among the 12 studied characters, three characters (SVL, TL, and VS) were significantly different between the sexes. As in most other nocturnal lizards, *H. persicus* does not show sexual dimorphism in colour and colour pattern.

**Key words.** *Hemidactylus persicus*, Gekkonidae, nocturnal, diurnal, sexual dimorphism, statistical analysis, southeastern Iran.

## Introduction

There are clearcut differences between males and females in certain lizard taxa, but not in others. Sexual size dimorphism and colour pattern are among important aspects of sexual dimorphism. Rensch's rule states that males show a greater phenotypic plasticity in body size than females (FAIRBAIRN 1997). In lizards, males often have larger head sizes and longer tail lengths (VERWAIJEN et al. 2002, JAMES et al 2005), and this may be explained by mating success, dietary divergence and more powerful copulatory biting behaviour (HERREL et al. 1996, PREEST 1994). All these arise as a consequence of adaptive processes, but alternative models of sexual size dimorphism show that they can also evolve as a result of non-adaptive processes (KARUBIAN & SWADDLE 2000, COX et al. 2003), for example as the result of physiological, behavioural and ecological differences which occur between sexes.

The genus *Hemidactylus* Oken, 1817 comprises three species in Iran: *Hemidactylus persicus* Anderson, 1872, *H. turcicus* (Linnaeus, 1758), and *H. flaviviridis* Rüppell, 1840 (ANDERSON 1999). According to BAUER et al. (2006), the existence of *H. turcicus* in Iran needs to be confirmed, as all known Iranian specimens may be attributed to *H. robustus* Heyden (ANDERSON, pers. comm.) In spite of the widespread distribution of *H. persicus*, there is little information on the exact degree of sexual dimorphism in this taxon.

In this study we have attempted to show whether *H. persicus* shows sexual dimorphism in different characters and also whether the patterns of sexual dimorphism are correlated with the current hypothesis on sexual size dimorphism.