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HIGHER-LEVEL MOLECULAR PHYLOGENETIC RELATIONSHIPS OF THE ENDEMIC GENUS *LANKASCINCUS* FROM SRI LANKA BASED ON NUCLEAR DNA SEQUENCES

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Abstract

The island of Sri Lanka, located off the tip of the Indian peninsula, has an amazingly diverse and highly endemic herpetofaunal assemblage despite its close proximity to the mainland. *Lankascincus*, a scincid genus endemic to the island of Sri Lanka, is one of the most common skinks found on the island. Nonetheless, many aspects of its biology and systematics are poorly understood. *Lankascincus* is a lygosomine scincid but it has an uncertain phylogenetic affinity within this major lineage of skinks. It is unclear if *Lankascincus* belongs within the *Sphenomorphus*-group or *Eugongylus*-group, two of four major lineages of lygosomines. We take a molecular DNA sequence approach to resolve the placement of *Lankascincus* within the larger lygosomine radiation. We find that *Lankascincus* represents an independent lineage separate from the *Eugongylus*-, *Mabuya*-, *Egernia*-, or *Sphenomorphus*-groups.

Introduction

The genus *Lankascincus* was recently described by Greer (1991), for six species of scincid lizards (*deignanai, deraniyagalae, gansi, fallax, taprobanensis,* and *taylori*) that are endemic to Sri Lanka (Plate 1, Figs. 1,2,3,4 & 5). The relationship of *Lankascincus* to other members of the lygosomine subfamily of skinks, however, remains unclear. Before 1991, the three previously described species were placed in the catch-all genus *Sphenomorphus*, and assumed to belong to the larger *Sphenomorphus*-group of lygosomine skinks. When Greer (1991) placed these three species along with three newly described species into the genus *Lankascincus*, he suggested that *Lankascincus* was actually more closely allied to the *Eugongylus*-group of lygosomine lizards. This assessment was based on the fact that *Lankascincus* possesses