

**LITERATURE REVIEW FOR IDENTIFYING THE RESEARCH GAPS
ON TAXONOMY, MOLECULAR SYSTEMATICS AND CONSERVATION
STATUS OF ENDEMIC SKINK GENUS *Lankascincus*
(SQUAMATA: SCINCIDAE)**

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Sri Lanka harbours a rich endemism for skinks. As a key link in the food-chain, skinks support to balance the ecosystem and help retaining eco-cycles, in the ecosystem. The genus *Lankascincus*, an endemic skink genus in Sri Lanka, has 10 identified species. The current rate of disappearing biodiversity and the high deforestation rates have threatened the survival of *Lankascincus*. Published literature on species of this endemic genus is scarce and yet to be carried out. Therefore, the aim of this study was to identify the research gaps on morphological, molecular and ecological aspects of research on all *Lankascincus* species. Published literature including research articles, short communications, abstracts and books were obtained through web based (Google scholar) and printed documents. The published literature demonstrates the incomplete existing knowledge on taxonomy and phylogeny of *Lankascincus*. Further, there are recognised contradictions in distinguishing the *Lankascincus* species morphologically. Majority of the studies focusing on morphology but seldom on the molecular-level or ecology, which was a major research gap in *Lankascincus* research. The lack of data has provoked conflicts in *Lankascincus* phylogeny and the requirement of great demand for species-specific conservation strategies. According to the literature, molecular and ecological studies are the most validated methods of reptile research in identifying species and to develop conservation plans, where we can recommend carrying out such research extensively for species endemic to Sri Lanka as a preservative method for rich biodiversity in the country. Thus, this literature evaluation proves the essentiality of comparative morphological analysis for all ten species in the genus along with a molecular level identification to distinguish species, to determine phylogeny and taxonomy and for species specific conservation plans.

Keywords: Skinks, *Lankascincus*, endemism, reptile conservation

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