

**FIRST ATTEMPT TO DETERMINE MOLECULAR PHYLOGEOGRAPHIC AFFINITIES OF SAW-SCALED VIPER OF THE GENUS *ECHIS* (SERPENTES: VIPERIDAE) FROM SRI LANKA**

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Saw-scaled viper is a member of the genus *Echis* within the Viperidae family and has a long history of taxonomic confusion. The taxonomy of the Sri Lankan *Echis carinatus* population has not been extensively studied, and this study represents the first attempt to infer the phylogenetic relationship of Sri Lankan *E. carinatus*. Sequence data from four mitochondrial gene fragments (*Cytb*, *NADH4*, *16S* and *12S* rRNA) obtained from the specimens collected from Northern Sri Lanka were compared with the same species from other localities and other species within this genus. Bayesian Inference analysis using these four mitochondrial gene fragments divided the populations of the genus into four main clades: the *E. ocellatus*, *E. carinatus*, *E. pyramidum* and *E. coloratus* clades. While *E. carinatus* is recovered as one of the monophyletic clades, the inter-relationship between the *E. carinatus* lineage and its sister group remains uncertain. Taxa within the *E. carinatus* were further divided into two groups. Samples from Sri Lanka closely clustered with populations of the species from South India, representing the subspecies of *E. carinatus carinatus*. A shallow genetic divergence between Sri Lankan and Southern Indian *E. carinatus* and the geographical connectivity strongly suggests that the Sri Lankan *E. carinatus* originated from the mainland of Southern India and, therefore, can be synonymized with *E. carinatus carinatus* existing in South India. Further molecular and morphological studies involving diverse samples from the Southern, Western and Eastern regions of India are required to delineate the geographical boundaries of the distribution of the subspecies *E. carinatus carinatus*. This information is vital for effectively choosing species-specific anti-venom to treat *E. carinatus* in the region.

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