

**MORPHOLOGICAL VARIATIONS AMONG THE RUSSELL’S VIPERS
(*Daboia russelii*, SHAW AND NODDER, 1796) IN THE JAFFNA
PENINSULA.**

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ABSTRACT

The Russell’s viper is a venomous snake with greater medical importance that belongs to the family: Viperidae. The reptile shows discontinuous distribution over Southeast Asian regions, and also shows diverse clinical manifestations during envenomation. Multivariate studies on the variations has divided Russell’s viper into two subspecies; the Western and Eastern forms. The Sri Lankan Russell’s viper, *Daboia russelii russelii* (Western form), is distributed over the dry, intermediate and wet climatic zones below 900m above sea level. This distribution in different geographical locations and the complexity of clinical manifestations observed among envenomed patients alarm the necessity of studying this organism very closer in different locations. The present study on the Russell’s viper was carried out from July 2019 to September 2020 in Jaffna peninsula which is geographically segregated from the rest of the dry zone. A total number of six samples were collected from different localities including Kopay, Urumpirai and Ariyalai. The detailed morphological study included morphometric characters (10), meristic characters (22) and other physical appearances such as colour patterns and shapes of dorsal and ventral spots (13), totaling for 45 numbers of variables. Comparison of these data with the already published literature, revealed variations in 4 characters namely, the number of scales that touch rostral scale, number of infra labial scales, number of dorsal blotches and the extent of black spots on the ventral side, which is collectively showing an average similarity of 83% with respect to the characters compared. This analysis does not successfully define the reasons behind the variations observed in different locations. Therefore, further analysis of the morphological data with increased sample size, coupled with molecular genetic profiling is necessary to explore the taxonomic status of Russell’s viper distributed within the Jaffna Peninsula.

Key Words: Russell’s viper, Population distribution, Morphological variation