

# **MATURITY STAGE CATEGORIZATION OF ENDEMIC LIZARD (*Calotes nigrilabris*) IN THE GRASSLANDS OF HPNP**

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## **ABSTRACT**

Morph metric parameters of endemic endangered highland lizard *Calotesnigrilabris* were obtained utilizing three fixed length 200m line transects in the grassland habitat of Horton Plains National Park (HPNP). The PCA analysis of morph metric data revealed five discrete clusters which were categorized into five maturity stages as Adult male, Adult Female, Sub-adult Male, Sub-adult Female and Juvenile. Furthermore, principal component 1 (PC1) axis was representing a high percentage of variance (91.3%) with negative values for all the parameters indicating that if one morph metric parameter of an individual lizard increases, all the other parameters also increase. SVL was identified as the morph metric parameter with the highest PC1 value (-0.422), yet it wasn't significantly affecting the PC1 axis. SVL was used as a base for easy categorization of maturity stages. Adult Males recorded the highest values for all the parameters considered. Results of the present study indicate that morph metric data can be used as a successful tool for the categorization of maturity stage of this agamid species.

**KEY WORDS:** maturity stage categorization, *Calotesnigrilabris*, endemic lizard, Horton plains national park