MORPHOMETRIC STUDY OF *Kalophrynus palmatissimus* AT TWO FOREST RESERVES: AYER HITAM FOREST RESERVE, SELANGOR vs. PASOH FOREST RESERVE, NEGERI SEMBILAN

Muhammad Abdul Aziz[1], Marina Mohd. Top @ Mohd. Tah[1], Shamarina Shohaimi[1], Izza Ab Ghani[1], and Christine Fletcher[2]

[1]Universiti Putra Malaysia
[2]Pasoh FRIM Research Station, Forest Research Institute Malaysia (FRIM)

May 18, 2020

Abstract

A research study on morphometrics of Kalophrynus palmatissimus (known as Lowland Grainy Frog) at Ayer Hitam Forest Reserve (AHFR), Selangor and Pasoh Forest Reserve (PFR), Negeri Sembilan was carried out from 12 November 2016 to 13 September 2017. The study was conducted to examine data on the morphometric traits of K. palmatissimus at the two forest reserves. 15 morphometric traits of K. palmatissimus were taken by using vernier calipers. Frog surveys were done by using 15 and 18 nocturnal 400 m transect lines at AHFR and PFR, respectively. In addition, five climatic data were recorded. The results showed that most of the morphometric traits in AHFR (n = 34) and PFR (n = 31) were positively correlated within each other. General Linear Model (GLM) analysis, showed that snout-vent length (SVL) influenced most morphometric traits, except for hand length. Later, it was found that the snout-vent length of K. palmatissimus in AHFR were slightly larger than PFR. From PCA analysis, morphometric traits were grouped into two components for AHFR and PFR, respectively. In AHFR, head length, eye diameter, head width, internarial distance, interorbital distance, forearm length, tibia length, foot length, and thigh length were strongly correlated while snout length and eye-nostril distance were strongly correlated. In PFR, eye diameter, head width, internarial distance, interorbital distance, foot length and thigh length were strongly correlated, while snout length and eye-nostril distance were strongly correlated; hence, suggesting that all morphometric traits grow simultaneously in K. palmatissimus with eye-nostril distance (EN), and snout length (SL) were closely growing simultaneously at AHFR and PFR. To conclude, the data collections showed the 15 different morphometric traits of K. palmatisssimus between AHFR and PFR with K. palmatissimus at AHFR were slightly larger than at PFR. Key words: Kalophrynus palmatissimus, forest reserve, morphometrics, climatic factors, transect lines

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