

HABITAT PREFERENCE OF SRI LANKA BUSH WARBLER (*Elaphrornis palliseri*) IN THE HORTON PLAINS NATIONAL PARK

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ABSTRACT

Habitat preference of *Elaphrornis palliseri* was studied at the Horton Plains National Park (HPNP), located on the southern plateau of the central highlands from January to November 2017. Three main natural habitats classified as Cloud Forest (CF), Cloud Forest Die Back (DB) and Grassland (GL) were selected. Three 100m line transects were placed randomly in each habitat and additional three 50m line transects were placed in CF representing the forest edge, forest middle and deep forest. Abundance of *E. palliseri* was recorded three consecutive days per month, during morning (0600h-1000h), midday (1030h-1430h) and evening (1430h-1830h) using visual encounter method. Seen and heard individuals were recorded within 10m distance from each transect. Canopy cover, litter depth, food availability and percentage cover of habitat attributes in an area of 5m radial distance were recorded from 3 randomly selected points in each transect. Actual and possible anthropogenic disturbances and predators were recorded along transects. Total of 105 individuals were encountered. Highest number of individuals were recorded in CF (n=67), followed by DB (n=38) and GL (n=0). In CF, 44 individuals were recorded in forest edge, 13 individuals from forest middle and 10 individuals were recorded in deep forest. Canopy cover (56.41%±4.58%), grass cover (mainly *Arundina riadebilis*), ground cover vegetation, shrub cover, coarse woody debris and bare ground coverage were identified as most important habitat attributes (PCA analysis) which significantly comprise in CF edges than DB and GL. Insect availability within habitats were not significantly different ($p > 0.005$) but Orthoptera availability was high in CF as preferable food of *E. palliseri*. CF edges comprise high food availability with higher number of Orthoptera than deep and middle of the CF. Possible and actual human disturbances were high in die back (possible- $0.038 \pm 0.02 \text{ min}^{-1}$, actual- $0.003 \pm 0.002 \text{ min}^{-1}$) and Cloud forest edges (Possible- $0.01 \pm 0.0007 \text{ min}^{-1}$, actual- $0.002 \pm 0.001 \text{ min}^{-1}$). No human disturbances were recorded in grassland. As non-human disturbances, jungle crows (68) and mongooses (7) were highly recorded in cloud forest edges. Although there were more disturbances in CF edges, *E. palliseri* still preferred it because there were more preferable habitat attributes and food availability. Since the CF of Sri Lanka are under various threats every action should be taken to preserve the CF as they present the last habitat for *E. palliseri*. Forest edge areas with higher probability to be easily disrupted by anthropogenic activities need to be conserved without disturbing the favourable natural habitats of *E. palliseri*.

KEYWORDS: Habitat preference, *Elaphrornis palliseri*, Horton Plains National Park; Cloud Forest; Grassland