

**Aspects of Parental Care Approaches and Nestling Diet of Yellow-Eared Bulbul (*Pycnonotus penicillatus*) in Montane Region of Sri Lanka****Chandrasiri P.H.S.P.<sup>1</sup>, Mahaulpatha W.A.D.<sup>1\*</sup>, Lakmal S.B.R.<sup>2</sup>, Maduranga E.K.D.<sup>2</sup>**<sup>1</sup>*Department of Zoology, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*<sup>2</sup>*Department of Wildlife Conservation, Jayanthipura Main Road, Battaramulla**\*mahaulpatha@sjp.ac.lk***Abstract**

Parental care is an important scenario of life history of many birds. Yellow-eared Bulbul (*Pycnonotus penicillatus*) is an endemic threatened bird occurs in forests at middle and higher elevations of Sri Lanka. This research was aimed to fill research gaps of aspects of parental care approaches and nestling diet of *P. penicillatus*. The study was conducted at the tropical montane cloud forests of Horton Plains National Park, of the central highlands, from September 2015 to July 2018. Five to 12 days spent at the field in the breeding season. The observer stayed at a hidden position and behaviour of the breeding couples was studied by using a binocular (10×42). Incubation patterns such as on-bout and off-bout duration, nest trips rate and nest attentiveness was studied. Moreover, after the eggs hatching on-bout and off-bout duration, feeding trips rate and nest attentiveness of *P. penicillatus* was observed in the nestling period separately. The diurnal period was divided as, dawn (0600-0900h), morning (0901-1200h), mid-day (1201-1500h) and evening (1501-1800h). Nestling diet was observed using a spotting scope (60×82 ED), hidden camera (SJCAM, M20) and faecal sack analysis. This process was conducted on five active nests. Incubation period lasted 14 to 17 days and nestling period was continued 14 to 17 days. They laid a single egg 3 to 5 days after completing the nest construction, and other egg was laid within next 24hrs. In the incubation period, on-bout duration ( $22.40 \pm 7.18$  min) and nest attentiveness ( $75.07 \pm 9.62\%$ ) was higher in the evening period. Off-bout duration ( $21.83 \pm 7.57$  min) was higher in the dawn period. Nest trips rate ( $4.01 \pm 0.83h^{-1}$ ) was higher in the mid-day. In the nestling period, on-bout duration ( $8.14 \pm 4.06$  min) and nest attentiveness ( $68.80 \pm 14.65\%$ ) was higher in the mid-day period and off-bout duration ( $4.06 \pm 1.35$  min) and feeding trips rate ( $8.58 \pm 1.17h^{-1}$ ) was higher in the dawn period. They have selected eight Orders of invertebrates and seven plant species to feed their nestlings and the Order Diptera was their major food source. Both male and female participated in incubation and feeding the nestlings. There was high predator pressure observed throughout the breeding period. Parental caring effort was significantly higher than the other bulbul species. High predation risk is a reason for population decline in the future. Therefore, control measures should be conducted to minimize threats from predators, to warrant the protection of future generations of *P. penicillatus*.

**Keywords:** Parental care, Nestling diet, *Pycnonotus penicillatus*, Horton Plains National Park, Endemic birds

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