



FRUGIVORY OF SRI LANKA YELLOW-EARED BULBUL (*Pycnonotus penicillatus*) IN HORTON PLAINS NATIONAL PARK

Chandrasiri P.H.S.P and Mahaulpatha W.A.D *

Department of Zoology, University of Sri Jayewardenepura, Sri Lanka

mahaulpatha@sjp.ac.lk

The term "frugivore" means whose diets include a substantial portion of fruits at least during some seasons. Therefore, this study was conducted on a frugivorous bird, Sri Lanka Yellow-eared Bulbul (*Pycnonotus penicillatus*) which is an endemic threatened species. The study area was Horton Plains National Park (HPNP). During the study period data collection was carried out from September 2015 to June 2017 on three consecutive days per month. Within the study area, there were Cloud Forest habitat, Cloud Forest Die-back habitat and Grassland habitat. The study was aimed to identify the feeding plants and seasonal fruit availability of *P. penicillatus*. Three, 100 m fixed line transects were marked in each habitats by using a global positioning system device (GPS). Within that transects behavioural study was carried out to construct an ethogram. Direct methods such as focal animal sampling and faecal analysis were used to identify food items of *P. penicillatus*. Feeding plants were identified by using field guides. Faecal samples were collected at the field and further analysed in the laboratory to identify fruit parts. To find out the food abundance, five individuals per each plant species, of identified fruit-producing plants were tagged. All the fruits (ripen and unripen) were counted in three branches of each tagged tree during four climate seasons {First Inter-monsoon Season (March – April), Southwest-Monsoon Season (May – September), Second Inter-monsoon Season (October – November) and Northeast- Monsoon Season (December – February)}. Within this study period *P. penicillatus* preferred, 16 species of feeding plants belonging to 11 families. They were feeding on five endemic plant species including *Symplocos bractealis*, *Berberis ceylanica*, *Callophyllum walker*, *Syzygium sclerophyllum* and *Eugenia mabaeoides*, nine native plant species and one introduced plant species. Both the direct observations and faecal analysis methods confirmed that ripen fruits of *Rubus ellipticus* was the major food of *P. penicillatus*. They had a wide range of fruits distributed in every layer of the forest ranges from shrubs to trees. Furthermore, there were fourteen plant species with ripen fruits availability throughout every climate season. Therefore, the current results of the study revealed that, the *P. penicillatus* had sufficient amount of fruits within every climate season at the HPNP to fulfil their diet. Moreover, it is recommended to protect important protected areas such as HPNP which are harbouring a large variety of feeding plants. These studies will be important to conservation activities to warrant the protection of endemic threatened birds such as *P. penicillatus* for future generation.

Keywords: *Frugivory, Pycnonotus penicillatus, Horton Plains National Park, Tropical Montane Cloud Forest.*