Roost Preference and Diet of Fruit Bats
in the University of the Philippines Diliman campus, Luzon Island, Philippines

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ABSTRACT

Bats are one of the most ecologically diverse groups of mammals. However, these unique species are threatened with extinction due to habitat loss brought about by urbanization. Interestingly, some of these bat species have been found in this new environment and are able to thrive. Urban biodiversity has recently been a topic in many conservation discussions as they have shown that these green spaces harbor relatively high biodiversity. Yet, ecological studies of bats in the urban environment have rarely been investigated. Their role as seed dispersers and pollinators is essential in the maintenance of the forest ecosystem. The study aims to assess the role of these fruit bats in the regeneration and maintenance of urban forest fragments. Specifically, the study will determine the roost preference and compare the diet of fruit bats in an urban landscape. The survey will be conducted within the University of the Philippines Diliman (UPD) campus from January to March 2021. Bat roosts search will be conducted in the UPD campus and roost characterization will be done following Hundt (2012). For each located bat roost, surrounding vegetation will also be characterized. For the diet study, seed traps will be placed below bat roost sites, and seeds will be collected every month. Seeds from bat droppings will be identified to the species level, if possible, using a combination of morphological characteristics of seeds and DNA barcoding. I hypothesize that fruit bats prefer to roost in areas adjacent to their food plant source and have a higher density of vegetation. The diet assemblage of fruit bats is expected to consist mainly of the available plants on the UPD campus, and there is no significant difference will be observed between the dietary composition of fruit bat species, *Ptenochirus jagori* and *Cynopterus brachyotis* in the UPD campus. This study could provide an insight into how these fruit bats adapt to urban landscapes. The University could also use the data generated from the study to enhance the landscape and management of green spaces in the campus to protect the bats and the people in the community.

Keywords: fruit bats, urban landscape, habitat use, bat roost, bat diet