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SEASONAL CHANGES IN THE COMPOSITION OF MIXED SPECIES BIRD FLOCKS IN MONTANE FOREST HABITATS OF HORTON PLAINS NATIONAL PARK

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ABSTRACT

Mixed species flocking behavior is a common phenomenon in tropical and temperate habitats worldwide. However, it is in tropical forests that flocks reach their maximum diversity and complexity. The composition of mixed species bird flocks (MSBFs) was observed in the tropical montane cloud forest habitats of Horton Plains National Park (HPNP) from December 2017 to October 2018 with the objective of identifying seasonal changes in composition. Line transects of 1000m length and 20m width were laid in each study site; Plateau (Site 1), North Western flank (Site 2) and North Eastern flank (Site 3). Average number of flocks was relatively higher in the Southwest monsoon season and lower in 1st Inter monsoon season when compared to other seasons. Annual average flock size and species richness values were 25.78 ± 8.28 and 6.90 ± 1.64 respectively. A significantly higher flock size and species richness were recorded in the 2nd Inter monsoon season and significantly lower values were recorded in the 1st Inter monsoon season. There were no significant differences on average flock number in each study site and between the seasons. However, ambient temperature, relative humidity and wind speed showed significant differences between seasons. Rainfall, canopy cover and litter depth changes within seasons were lower and not significantly different. Similar environmental conditions were available within most areas of the park. However, canopy cover and litter depth were not distributed equally within the park. The findings indicate an even distribution of MSBFs in the HPNP without any seasonal barrier. However, flock size and species richness varied within seasons, having relatively stable numbers of MSBFs. Second Inter monsoon season (October - November) can be identified as the most suitable time period for observations of MSBFs. Conservation measures should be integrated in eco-tourism activities especially during those time periods.

KEYWORDS: Mixed species flocking behavior, Horton Plains National Park, flock size, species richness