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Composition of mix species foraging flocks of birds at two altitudes in the Knuckles region

W G D D M Shirmila* and S Wickremasinghe

Department of Biological Sciences, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Mihinthale

Mixed-species flocks (MSF) are an important form of the social organization of birds throughout the world, particularly in the forested tropics. species flocks are -Mixed and their composition varies with the elevation and ,t edge habitatscharacteristic of all fores .habitatThe present study identified the mixed species flocks of birds at two altitudes (Riverstan and Bellan-ela) along the same stretch in the Knuckles region, Sri Lanka. Monthly transect counts and opportunistic observations were made from January to May, 2012. Data were analyzed using MINITAB (version 16). A total of 72 and 30 MSF were encountered at Riverstan and Bellan-Ela respectively. Flocks consisted of 27 bird species in Riverstan and 26 bird species in Bellan-Ela during the study period. The flock sizes vary between 2 – 13 species and 4 – 58 individuals at Riverstan and 3 – 10 species and 3 – 29 individuals at Bellan-Ela. The average number of individuals per flock was significantly higher ($P = 0.004$) at the high altitude (17.6 ± 9.1) than that at low altitude (10.6 ± 5.7). There were a high percentage of flocks with six species in each at both Riverstan and Bellan-Ela. A high percentage of individuals per flock consisted of 11 – 20 and <10 at Riverstan and Bellan-Ela respectively. The composition of MSF was different at two sites and the nuclear species .The .mainly differ with the elevation and habitat in the northern flank of the Knuckles range Grey- headed canary flycatcher and Sri Lanka scimitar babbler were the nuclear species at Riverstan while Tickell's blue flycatcher, Common iora and Yellow browed bulbul were the nuclear species at Bellan-Ela. According to the associations of foraging heights, four main clusters at Riverstan and two main clusters at Bellan-Ela were observed within flocks, but clusters at Riverstan were not prominent as at Bellan-Ela. Different bird species used different heights within flocks. Although the same bird species represent both Riverstan and Bellan-Ela flocks, they use different height ranges within flocks. The average horizontal distance of the flocks from first moving bird to last moving bird were 875.5 m (± 299) and 742.8 m (± 602) at Riverstan and Bellan-Ela respectively and there were no significant variation of horizontal distance of flocks ($r = -0.375$, $P = 0.533$) at the two altitudes. Flocks of small size moved at a slower rate than flocks of large sizes at both sites. MSF at both Riverstan and Bellan-Ela represent resident, endemic and migrant bird species. The present study also indicated that they were affected by fragmentation, visitor entrance and forest fires in the Knuckles region.