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Research Article

A comparative study of bird diversity and guild structure of bird communities in urban green patches of Pune metropolitan region, India

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ABSTRACT

Birds are an important component of the food chain as they support associated fauna and their assemblage is dependent on the type of habitat. Changing environments, such as urbanization severely affects bird diversity and their ecology. However, natural green patches and artificial gardens could support significant bird diversity and help them to survive through. Composition of bird species in green patches of a particular urban area may vary depending on the size of the area and type of the vegetation. Bird diversity of five urban green patches in a metropolitan city, Pune, India was studied. Bird diversity was monitored at four urban sites (Panchawati, Saras Baug, Fergusson College, and Nigdi) and one natural hill forest site (Sinhagad valley). Food grid and residential status of the birds was also analyzed which were observed in all study sites. Bird assemblage at Sinhagad valley was distinct than other urban sites. Among the urban sites, Panchawati harbors the highest number of bird species while at Nigdi, we recorded the lowest number of bird species. All the sites were dominated by Passeriformes birds followed by Accipitriformes birds. All the urban sites support native bird species while Sinhagad valley supports native and migratory birds owing to its large area and natural forest coverage. Irrespective of the habitat, all sites predominantly support insectivore and omnivore birds. The results of the present study along with the other reports are useful for monitoring bird diversity, helpful to understand the impact of urbanization on bird assemblage, and prioritizing future conservation action plans.

Key words: Bird assemblage, Bird diversity, Food guild, Urban green patches