

A CASE Study

Habitat selection of urban birds

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For the study of habitat selection of urban birds, Visnagar (23°42' N and 71°34' E above 127 m.s.l.) as an urban area was selected. 103 species of birds were under observation for one year. About 2/3 population of birds in urban environment selected vegetation for nesting and 1/3 population preferred vegetation or other man made structure or ground, wetland area etc. Tall trees were preferred by Raptors and Crows. Small birds selected thorny shrubs. Grainivours birds remained near feeding stations for feeding, resting and roosting also. Majority of birds (84%) preferred to roost on vegetation.

Habitat may be defined as the place where an organism lives or the place where one would go to find it. The place may be a physical area, some specific part of the earth's surface, air, soil, or water. Sometimes animal can occupy a single habitat or many animals can occupy a single habitat. Aquatic and terrestrial habitats are two principal habitats. By analogy, it may be said that the habitat is the organism's "address" and the niche is its "profession". Clarke (1954) distinguished two separate meanings of the term niche; the 'functional niche' and the 'place niche'. Hutchinson (1975) defined that niche is the total range of conditions under which individual (or population) lives and replaces itself.

The various habitats under study were used by birds for different purposes, some for feeding or nesting, other for roosting or perching, or even as temporary resting place while passing through.

For the study of habitat selection of urban birds, Visnagar as an urban area was selected. Visnagar (23°42' N and 71°34' E above 127 m.s.l.) is a taluka place of Mehsana district, Gujarat, India, which is about 750 years old. The municipality

area is 790 hectare, out of which 83.74 = (84) hectare is central part of the city and the developing area of the city is 8.49%. It is surrounded by wetland and cropland ecosystem. It is an urban area with rural culture.

The habitat patterns of urban birds were recorded in study area. Transects of 1 km. length were laid in each site and encountered birds in morning between 0700 and 1000 hrs. It was examined that birds select their habitat for nesting, roosting, resting and feeding purpose. Sheet was prepared for observational record. The identification was based on Ali and Ripley (1987).

Habitat selection for feeding:

Different type of habitat such as vegetation, ground, other man-made structure and wetland area are selected for feeding. 12 % species preferred only vegetation to get food source. Commonly they were Green Pigeon, Large Cuckooshrike, Oriental White-eye, Munia, Rose-ringed Parakeet, Oriole etc. 13 % species either preferred vegetation for other natural habitat. 23 % species preferred ground and other natural habitat, 8 % species also preferred other ground and other man-made structure. 27 % species were found on wetland due to their aquatic life (Table 1).

Phenology of vegetation plays its important role in search of food those in ecosystem (first tropic level in ecosystem). Crop field around the city area is also the considerable factor for insectivorous bird ex. Cattle Egrets, mostly found in crop field area during ploughing, watering and harvesting period. Wetland birds mostly depend on planktons and fishes. Favourable raining season is important for these birds. Human religious culture

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