

RESEARCH PAPER

## Breeding seasons and nest site selection of some selected urban birds of Visnagar city area and its vicinity

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### ABSTRACT

The study was carried out at Visnagar city area and its vicinity. Visnagar is a taluka place of Mehsana district, Gujarat. To make a study, each nest was given particular code number and was kept under regular observation. Total 20 species were studied due to available satisfactory data during the study period. House sparrow, Indian silverbill and Rock pigeon were observed to breed throughout the year with small intervals. Common wetland birds used to breed during June to September due to enough available food sources. Nest site selection was specific but majority (73.33%) of them selected vegetation for nest.

**Key words :** Breeding, Nest site, Breeding season, Wetland, Bushy shrub.

Any healthy ecosystem depends on the fertile biodiversity of that ecosystem. The progeny and population are maintained in the habitat only when it breeds. In that reference of species for the ecological study of any place, the study of population as well as its related breeding biology of that place becomes necessary. The same kind of work on individual had carried out in different countries. Mayfield (1961-1975) and Jhonson (1979) described a method of calculating nest success. Annual productivity and its measurement in a multi brooded *Passarine* was studied by Pinkowski (1979). Avian demography such as clutch size, nesting success and survival rates were studied by Hickey (1952), Nice (1957) and Ricklefs (1969). The present kind of work has not been done separately in India.

In the ornithological literature, the starting of a first clutch of eggs is referred to as breeding and the period during which the fresh clutches are usually started in a population, is referred to as breeding season. The avian breeding season presents a wide spectrum ranging from continues to restrict breeding season. A continuously breeding season tends to occur in the regions of the world where there is no marked seasonality in the climate and a restricted breeding season tends to occur in the region with seasonal variation in the environmental conditions (Immelmann, 1971). Although most birds have one breeding season each year but there are several couriers' exceptions. Some birds nest twice in the same year (Ashmole, 1963a). The duration of the breeding season depends on the physiological condition of the endocrine organs. Little is known about the possible influence (if any) of external on the organs near the end of a specie's

breeding cycle.

### MATERIALS AND METHODS

For the study on breeding season and nest site, of some urban birds, Visnagar city area and its vicinity was selected. Visnagar is a taluka place of Mehsana district, which is about 750 years old. It is situated between 23°42' N and 71°34' E above 127 m.s.l. Being a taluka place, it is surrounded by rural areas.

To make a study, four sites of Visnagar city were selected. The sites were the spaces where species were building the nest. The nest was given particular code number and was constantly observed. Due to constant observation, it was possible to notice the nesting activities. Some nests, which were found for once, and then deserted, were not counted.

### RESULTS AND DISCUSSION

#### *Breeding season:*

Total 20 species were under consideration to study their individual breeding schedule in a study area in 2003. The span of a breeding period is mentioned in Table 1. It is also correlated to other authorities that worked in India. It was observed that only three species showed continuous (with vary small interval) breeding throughout the year. They were House sparrow *Passer domesticus*, Indian silverbill, *Lonchura malabarika* and Rock pigeon, *Columba livia*. Rock pigeon has small interval during mid monsoon period. Breeding season in a tropical population of House sparrow was studied by Naik and Mistry (1980). They have also suggested that sparrows