



AVIFAUNAL DIVERSITY OF ASHTI CITY, DISTRICT- WARDHA (M.S.) INDIA

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Abstract: The avifaunal diversity of Ashti city was studied for a period of one year from June 2015 to May 2016. The study was based on visual observation. As the city is surrounded by dense vegetation, it is rich in biodiversity and harbors a variety of local as well as migratory birds due to abundant food supply available throughout the year in the form of worms, crustaceans, insects, molluscs as well as aquatic weeds. Variation in food availability in different season affected avifaunal diversity in study area. This habitat attracted 48 species of birds which are residential, residential migrants and migratory including aquatic birds, waders and others. Highest number of common mynas, egrets, crows, open billed storks, cormorants, little herons, pond herons, black headed ibis were recorded abundantly in all the three seasons, pre-monsoon, monsoon, and post-monsoon.

Keywords: Avifauna, Ashti city, Residential, Resident migrants, Migratory

Introduction:

The birds are very significant component of biodiversity and are the most important indicators of the balanced living systems. The population of birds in a particular ecosystem is depending on the composition of the ecosystem, environmental condition and seasonal variation. Many species of birds respond to small changes in habitat structure and composition, therefore they serve as good indicators of changes in the environment (Robert *et al.*, 2001). Out of more than 9000 bird species of the world, the Indian subcontinents contains 1,300 species or over 13% of the world's bird species (Grimmet *et al.*, 2004). Wetlands are one of the most threatened habitats because of their vulnerability and attractiveness for their development (Hollis *et al.*, 1988). India has a diverse range of wetland types that harbor not only a variety of breeding resident species of birds, but also attracts a number of water fowl breeding in Central and North Asia in winter.

One such important ecosystem in Central India is Wardha district of Maharashtra state. Ashti is a small city having tropical wet and dry climate. Summers are extremely hot lasting from March to June. The maximum temperature occurring in May. Winter lasts from November to January. It receives an annual rainfall of 1,260 mm from monsoon rains during June to September. Ashti has

biodiversity rich ecosystems and harbors a variety of local as well as migratory birds due to abundant food supply throughout the year in the form of worms, crustaceans, insects, molluscs as well as aquatic weeds. The city harbors different kinds of aquatic as well as terrestrial weeds in its catchment area of Ashti lake which support a large number of fauna on which the birds thrive very well.

The earlier studies on birds were undertaken by investigators like Wadatkar and Kasambe (2002) studied the birds of Pohara- Malkhed forest reserve, Yardi *et al.*, (2004) studied on birds of Salim Ali lake, Aurangabad, Kulkarni *et al.*, (2005) studied on birds in and around Nanded, Maharashtra. It has been recorded that this region of Vidarbha is lagging behind the bird studies with respect to various reservoirs. So in order to assess biodiversity of birds, the present investigation was carried out to prepare check-list of avifaunal diversity of Ashti city district Wardha.

Study Area

This city has a reservoir, which harbors a number of aquatic weeds in the submerged as well as floating state on which thrive a large number of aquatic organisms. Due to abundant food availability throughout the year in this area in the form of fruits, worms, crustaceans and insects etc. The city always attracts a large number of birds throughout the year. Apart from this dense vegetation in forest area surrounding the

city provide suitable habitat for many migratory and resident birds.

Materials and methods:

Studies were made throughout the year from June 2015 to May 2016 for preparing a check-list of birds weekly visits to the sites were made for one year. The birds are recorded by line transect method (Barnham *et al.*, 1980) as well as by visual observations. Binoculars were used for bird watching. Bird population was observed and documented every week in the early morning hours 7.00A.M to 10.00 A.M and in the evening time when the birds are most active. Some visits were also made in afternoon to check the activities of avifauna at different times. The birds were identified and classified on the basis of books authored by Salim Ali (2002), Bhat Harish and Pramod Subbarao (2006) and Pande *et al.*, (2003). The scientific and local names were ascertained based on the key of Manakadan and Pittie (2001). Status of each species is categorized as Resident, Resident migratory and Migratory. A check-list is prepared as per Abdulali (1981) and Gaikwad *et al.*, (1997).

Results and discussion:

During the present investigation, 48 species of birds including aquatic and terrestrial birds were recorded from the Ashti city (Table-1.1, 1.2 and 1.3). It was observed that the maximum bird species were recorded during spring, early monsoon and late winter, while comparatively less number of birds was recorded during late summer, late rainy season and early winter. Little cormorant, wood sand piper and Black winged stilt were observed in October, Common Sand piper, Purple moorhen and Brahminy starling in November, Asian open bill stork in February while Shikara was recorded in the month of March. Kulkarni *et al.*, (2005) reported 151 species of birds from Nanded division. Sahu and Dutta (2005) recorded 39 species of birds belonging to 7 families and 10 Orders from Mayurbhanj district, Orissa. Qadri (1989) observed 13 avian species during 1985-87 from Hokersar wetland. Wadatkar and Kasambe (2002) reported 171 species of birds from Pohara- Malkhed reserved forest, Amravati.

Kulkarni and Kanwate (2010) recorded 62 species of birds from Jaldhara forest, Kinwat, Nanded and observed Little Cormorant, Indian Pond Heron, Little Egret, Red Wattled, White breasted Kingfisher, Indian Roller, Common Myna, Red Vented Bulbul in all seasons. Sahu and Rout (2005) recorded 38 species of aquatic birds belonging to 10 families. Kulkarni and Goswami (2008) reported 31 species of birds belonging to 16 families from summer hill station, Shimla, Himachal Pradesh. Thakor *et al.*, (2010) observed 104 birds species in and around Heranj lake and Pariyej lake in Matar taluka, Gujarat. Kurhade (2010) recorded avian diversity of 208 different species from Jaikwadi Water Reservoir, Maharashtra.

Conclusion:

The overall check-list prepared shows that 48 different kinds of birds have visited the city for feeding and breeding activities during the year, due to abundant food available in the nearby reservoir water. Migrant species migrate from the northern hemisphere and were found in the study area during winter only. Local migrant species migrate locally in the country and were found in the study area.

Table-1.1: Resident birds recorded in Ashti city during 2015-2016.

Sr. No.	Common Name	Zoological Name
1.	Asian Openbill	<i>Anastomus oscitans</i>
2.	Asian Pied Starling	<i>Sturnus contra</i>
3.	Asian Koel	<i>Eudynamis scolopacea</i>
4.	Ashy-Crowned Sparrow Lark	<i>Eremopterix grisea</i>
5.	Black Drongo	<i>Dicrurus macrocercus</i>
6.	Brahminy Starling	<i>Sturnus pagodarum</i>
7.	Cattle Egret	<i>Bubulcus ibis</i>
8.	Common Coot	<i>Fulica atra</i>
9.	Common Mynah	<i>Acridotheres tristis</i>
10.	Common Moorhen	<i>Gallinula chloropus</i>
11.	Common Kingfisher	<i>Alcedo atthis</i>
12.	Common Iora	<i>Aegithina tiphia</i>
13.	Cotton Pygmy- Goose	<i>Nettapus coromandelianus</i>
14.	Great Cormorant	<i>Phalacrocorax carbo</i>
15.	Green Bee-Eater	<i>Merops orientalis</i>
16.	House Sparrow	<i>Passer domesticus</i>
17.	House Crow	<i>Corvus splendens</i>
18.	House Swift	<i>Apus affinis</i>
19.	Indian Robin	<i>Saxicoloides fulicata</i>
20.	Indian Pond Heron	<i>Ardeola grayii</i>
21.	Intermediate Egret	<i>Mesophoyx intermedia</i>
22.	Jungle Babbler	<i>Turdoides striatus</i>
23.	Little Egret	<i>Egretta garzetta</i>

24.	Little Cormorant	<i>Phalacrocorax niger</i>
25.	Little Grebe	<i>Tachybaptus ruficollis</i>
26.	Orange Headed Thrush	<i>Zoothera citrine</i>
27.	Purple Heron	<i>Ardea purpurea</i>
28.	Rain Quail	<i>Coturnix coromandelica</i>
29.	Red Vented Bulbul	<i>Pycnonotus cafer</i>
30.	Spot Billed Duck	<i>Anas poecilorhynca</i>
31.	Spotted Dove	<i>Streptopelia chinensis</i>
32.	White Breasted Water-Hen	<i>Amaurornis phoenicurus</i>
33.	White Browed Bulbul	<i>Pycnonotus luteolus</i>
34.	White Throated Kingfisher	<i>Halcyon smyrnensis</i>
34.	Wire Tailed Swallow	<i>Hirundo smithii</i>
35.	Yellow Eyed Babbler	<i>Chrysomma sinense</i>

Table-1.2: Seasonal Local Migrants recorded in Ashti city during 2015-2016.

Sr. No.	Common Name	Zoological Name
1.	Black-Headed Ibis	<i>Threskiornis melanocephalus</i>
2.	Grey Heron	<i>Ardea cineria</i>
3.	Painted Stork	<i>Mycteria leucocephala</i>
4.	Pied Cuckoo	<i>Clamator Jacobinus</i>
5.	Rosy Starling	<i>Sturnus roseus</i>
6.	River Tern	<i>Sterna aurantia</i>
7.	Wooly -Necked Stork	<i>Ciconia episcopus</i>

Table- 1.3 Winter Migrants recorded in Ashti city during 2015-2016.

Sr. No.	Common Name	Zoological Name
1.	Common Kestrel	<i>Falco tinnunculus</i>
2.	Gadwall	<i>Anas strepera</i>
3.	Northern Pintail	<i>Anas acuta</i>
4.	Northern Shoveler	<i>Anas clypeata</i>
5.	Ruddy Shelduck	<i>Tadorna ferruginea</i>
6.	Wood Sandpiper	<i>Tringa glareola</i>

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