



IJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 6 Issue: V Month of publication: May 2018

DOI: <http://doi.org/10.22214/ijraset.2018.5284>

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Avifaunal diversity and status of Kaggaladu Bird Sanctuary of Tumkur District, Karnataka

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Abstract: *The present study was carried out to identify avifaunal diversity and population status of at Kaggaladu Bird Sanctuary of Tumkur district. A total of 48 species were identified belonging to 18 families and 12 orders were recorded in the study area. Among the avifauna 28 (58.33%) resident, 05 (10.42%) migratory and 15 (31.25%) resident-migratory birds were recorded. More species were sighted in order Ciconiformes Passeriformes, followed by Gruiformes, Anseriformes and Coraciiformes were recorded.*

Keywords: *Kaggaladu, bird sanctuary, avifauna, diversity, status, conservation*

I. INTRODUCTION

Diversity of avifauna is one of the most important ecological indicators to evaluate the quality of habitats. Most of the birds are play a useful role in the control of insect pests in agricultural and acts as scavengers useful to mankind. Now a days, avifaunal diversity has been decreasing due to human disturbances which leads to destruction of their habitats. Therefore, detail study on avifauna and their ecology is important to protect them. India supports 1300 plus birds species belonging to 16 orders. Out of these, 900 plus species are residents [1] and rest are migratory. Karnataka state represents 500 plus bird species with 48 listed in threatened category. Mysore avifauna was documented [2], Avifauna of Biligiri Rangaswamy temple by [3], [4] reported about Anekere wetland avifaunal diversity, [5] reported wetland avifauna of Kundavada lake Davangere, [6] in Gulbarga. No research on was carried out in the Kaggaladu bird sanctuary. The present study provides comprehensive data on avifaunal diversity and status.

II. MATERIALS AND METHODS

A. Study area

Kaggaladu bird sanctuary is located about 9 km to the north-west of Sira town of Tumakuru District of Karnataka. It is situated about 56 Km far from Tumakuru and 123 Km from Karnataka Capital Bengaluru. It is geographically located between latitudinal parallels of 13° 48' to 13° 49' N and longitudinal parallels of 75° 51' to 75° 53' E. The average rain fall is around 60cm annually.

B. Methodology

Inventorying on each visit all the birds were identified species wise with as much accuracy. Birds were saturated by directed observation using a pair of Olympus binoculars (10x50). For identification and field-diagnosis of birds, colours plates of [7] and [8] were used. The common scientific names of the birds given in the list followed the Birds of the world, recommended English Names are by [9]. The common-Rare, Resident-Migratory Status of the bird are classified as per [10].

III. RESULT AND DISCUSSIONS

During the present investigation 48 different species of birds belonging to 18 families and 12 orders were recorded (Table 1). More number of species were sighted in the order Ciconiformes 10, Passeriformes 09, Charadriiformes 07, Gruiformes 05, Anseriformes and Coraciiformes 04 each, Falconiformes 03, Pelecaniformes 02 while, in Podicipodiformes Columbiformes, Psittaciformes and Cuculiformes one species each. In the present study 41 residential birds, 10 migratory birds and 20 resident-migratory birds were recorded (Table 2 and Fig. 1). The resident birds are observed in most of the months of study period, migratory birds were observed in winter season. Most of the species were found in the winter season due to availability of sufficient water and vegetation around it.

IV. CONCLUSION

The diversity of birds are affected by various factors like the food availability and biotic changes in the wetlands [11]. The study documents the rich avifauna diversity showing the area still provides some potential habitats for declining population of the threatened birds. In due course prevailing bird species diversity may decline disturbing habitat. The increase of the vegetation and

prevention of habitat destruction leads to increase of bird population. Therefore it is the need to monitor Bird Sanctuary. The study could provide the baseline for research which could be used for conservation of birds. The search is continued and hope the number will be increased in future.

Table 1 Number of orders present in the study area

| Sl. No. | Orders | No. of Families | No. of Species |
|---------|------------------|-----------------|----------------|
| 1 | Podicipodiformes | 1 | 1 |
| 2 | Pelecaniformes | 1 | 2 |
| 3 | Ciconiformes | 3 | 10 |
| 4 | Anseriformes | 1 | 4 |
| 5 | Falconiformes | 1 | 3 |
| 6 | Gruiformes | 1 | 5 |
| 7 | Charadriiformes | 2 | 7 |
| 8 | Columbiformes | 1 | 1 |
| 9 | Psittaciformes | 1 | 1 |
| 10 | Cuculiformes | 1 | 1 |
| 11 | Coraciiformes | 2 | 4 |
| 12 | Passiriforms | 3 | 9 |
| Total | | 18 | 48 |

Table 2 A systematic list of birds with their status in the study area

| Order | Family | Scientific Name | Common Name | Status |
|------------------|-------------------|-----------------------|--------------------------|------------|
| Podicipediformes | Podicipitidae | Tachybaptusruficollis | Little grebe | R |
| Pelecaniformes | Phalacrocoracidae | Phalacrocoraxniger | Little cormorant | RM |
| | | Phalacrocoraxcarbo | Great cormorent | RM |
| Ciconiiformes | Ardeidae | Ardeacinerea | Grey heron | RM |
| | | Ardeapurplea | Purple heron | RM |
| | | Ardealagrayii | Pond heron | R |
| | | Nycticorasnycticoras | Night heron | R |
| | | Bubulcus ibis | Cattle egret | RM |
| | | Casmerodiusalbus | Great egret | RM |
| | | Mesophoyxintermedia | Median egret | RM |
| | Ciconiidae | Egrettaazarzetta | Little egret | R |
| | | Mycteria leucocephala | Painted stork | RM |
| | | Threskiornithidae | Pseudibispapillosa | Black ibis |
| Anseriformes | Anatidae | Dendrocygnajavanica | Lesser Whisteling teal | R |
| | | Anascrecca | Commenteal | RM |
| | | Amaspoecilorhyncha | Spotbilled duck | RM |
| | | Anasquerquedula | Garganey | M |
| Falconiformes | Accipitridae | Milvusmigrans | Common Pariahkite | R |
| | | Halliastrindus | Brahminy Kite | R |
| | | Accipiter nisus | Sparrow Hawk | R |
| Gruiformes | Rallidae | Amaurornisphoenicures | White breasted water hen | R |
| | | Gallirexcinerea | Water cock | RM |

| | | | | |
|-----------------|--------------|-------------------------|---------------------------|----|
| | | Gallinulachloropus | Indian morehen | R |
| | | Porphyria porphyrio | Purple morehen | RM |
| | | Fulicaatra | Coot | R |
| Charadriiformes | Charadriidae | Vanellusindicus | Redwattled lapwing | R |
| | | Charadriusdubius | Little ringed plover | M |
| | | Tringahypoleucos | Common sand piper | RM |
| | | Calidrisminuta | Little Stint | M |
| | | Calidristestacea | Curlew Sand piper | M |
| | Laridae | Sterna aurantia | Indian River Tern | RM |
| | | Sterna hirundo | Common Tern | R |
| Columbiformes | Columbidae | Streptopeliachinensis | Spotted Dove | R |
| Psittaciformes | Psittacidae | Psittaculakrameri | Rose Ringed parakeet | R |
| Cuculiformes | Cuculidae | Eudynamysscolopacea | Koel | R |
| Coraciiformes | Alcedinidae | Halcion smyrnensis | White breasted kingfisher | R |
| | | Alcedoatthis | Small blue kingfisher | R |
| | | Cerylerudis | Pied Kingfisher | R |
| | Meropidae | Meropsorientalis | Small green bee eater | R |
| Passeriformes | Sturnidae | Acridotheres tristis | Indian Myna | R |
| | | Acridotheres fuscus | Jungle Myna | R |
| | Corvidae | Corvussplendens | House crow | R |
| | | Pellorneumruficeps | Spoted Babler | R |
| | Motacillidae | Motacillamaderaspatnsis | | R |
| | | Motacillaflava | | R |
| | | Motacillacinerea | | M |
| | | Motacilla alba | | RM |
| | | Antusrufulus | | R |

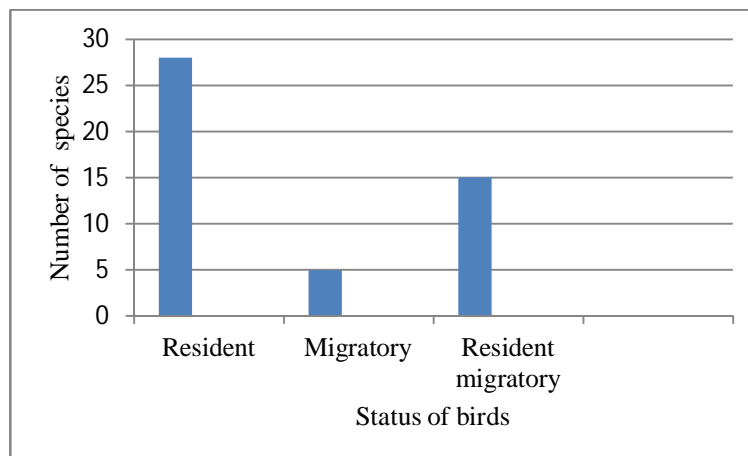


Fig. 2 Status of the birds in the study area



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