STUDIES ON THE AVIAN DIVERSITY OF BALIKUDA, JAGATSINGHPUR

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ABSTRACT: -
Study on bird diversity in Balikuda, Jagatsinghpur was done over a period of fifteen days from December, 2019 to February, 2020. A total no of 26 species belongs to 19 families were recorded during the study covering the area of about 301.01km2. The species are found in that area is common. The study area has wide variety of trees, which may be one of the major contributing factors for the richness of birds.

Introduction

A bird has been described as a feathered and having two legs. These are warm blooded, and flying creatures with forelimbs adopted for flying and hind limbs for perching. Birds belongs to sub-phylum vertebrata and phylum-chordata. They are generally thought to be evolved from small bipedal dinosaurs in the mid-late jurassic, over 150 million years ago. The first known fossil bird is archaeopteryx (Ali, 1996). There are nearly about 9000-10,000 species of birds present in the world. The class aves mainly divide into two sub-classes archaeornithes and neorinthes. Archaeornithes includes ancient birds where as the neorinthes includes the present day birds. The birds are warm blooded animals i.e whose temperature remains more or less constant and independent of the surrounding temperature. The feathers present in the body of a bird helps to control the body temperature. The body feathers further divided into 3 categories i.e

(1) The ordinary outside feathers known as contour feathers.
(2) The fluffy down feather is called as plumulae hidden by contour feather.
(3) The hair like filo-plumes which are hardly seen untill the other feathers have been plucked off (Salim Ali, 2012).

The body temperature of birds is about 38-44 degree centigrade is higher than that of most mammals. This high temperature helps to make their activity faster but also their need of food bigger (Tiwari, 1998). The birds are found in different different areas like in farmland, deserts, jungles, river banks, seas etc. A few birds are found in caves. The birds are not found at southern pole. The body structure helps them to fly actively and migrate from one habitat to anathor. Some birds are restricted to some geographical area and they found no where else. Many birds species have adopted to a particular condition. They migrate to one place to anathor to avoid adverse climate. During their breeding season males become more aggressive and bright in colour. Males attract the females by the help of song and the bright body colour and the nesting skill. A few birds are single colour (Kotpal, 1985). Nearly

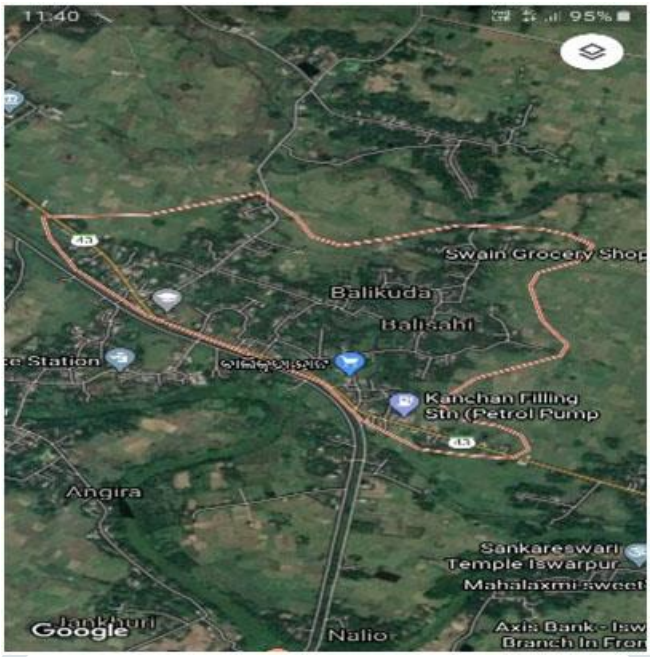
all birds undergo moulting which is a seasonal shedding and replacement of feathers. During its first year of life, a bird usually has 4 moultings. The complete process of moulting takes about 6 weeks.

Birds are very intelligent creatures; we can understand the skill of building nests, travelling 1000s of mile during migration without deviating from their tracts. Birds having most developed sight and hearing and smell is practically absent (Grewal, 1995). They can make nests at the places beyond the reach of other land animal. They use their beak to bite and chew their food. These are the animals having vertebra. They mainly lay eggs. They have a four-chambered heart and light in weight. Birds are also used in the preparation of food. Birds are also important in the tourism industry in many countries. They also help to enhance the economic status of the country. Birds perform many ecological functions in their habitats. The insectivorous species helps to control the harmful insects which affect the crop production. Some of the birds feed upon the waste materials or dead bodies are called as scavenger birds which play an important role to clean the environment. Birds help in keeping balance of nature. They also helps in the pollination of flowers and dispersal of seeds. The major factors affecting the bird diversity is the habitat destruction. Due to human interfearance birds loss their natural habitat, which affect the health and vegetation of birds. The main source of habitat destruction is industrialization. Now a days due to the excess use of vehicles and mobile phones some species of birds are become extinct and some are about to extinct (Tiwari, 1998). There are nearly about 9000-10,000 species of birds present in the world and more than 400 species of birds found in Odisha. The study was conducted in Balikuda, Jagatsinghpur which helps to know about the status of bird species which further helps to the researchers and also the student for future study or research. This study helps in preparing a baseline data on bird diversity or avifaunal diversity of Balikuda, Jagatsinghpur.

MATERIALS AND METHODS

STUDY AREA

The study was conducted in Balikuda, Jagatsinghpur. There are so many types of trees presentin that area, which provides shelters for different types of birds. There are some rivers, ponds, canals, open farmlands, market areas which provides a better habitat and vegetation to birds. The village and open farmlands areas are become quite and provide better chance of living of many types of birds, the total area of Balikuda is 301.01 km2.



(Study area)

Methodology

The photos were captured by Nikon camera (coolpix L840/ L sterio R) and binoculars also useful in bird watching process. Camera provides clear image with full HD and having 38x optical zoom.

(A) BIRD WATCHING TECHNIQUE

Birds are the most attractive Vertibrate animals having the capacity to fly. So bird watching is a challenging process. Eye fixing is the most important process used in bird watching. Then move silently to take a closure view of that bird. Many types of birds are seen in urban areas than cities. Clear image helps in the right /proper identification of of the bird. Bird watching is a time consuming process. This process uses sound of birds, their movements for bird watching. Vegetation type also helps in the bird watching process. There are some of the photos of birds are given below:-

Sl no	Common name	Scientific name	Status
1	Jungle babbler	*Turdoides striata*	C
2	Common myna	*Acridotheres tristis*	C
3	Asian pied starling	*Gracupica contra*	C
4	Common tailor bird	*Orthotomous sutorius*	C
5	House crow	*Corvus splendens*	C
6	Jungle crow	*Corvus macrorhynchos*	C
7	Rufous treepie	*Dendrocitta vagabunda*	C
8	Black drongo	*Dicrurus macrocercus*	C
9	Red whiskered bulbul	*Pycnonotus jocosus*	C
10	Red vented bulbul	*Pycnonotus cafer*	C
11	Indian golden oriole	*Oriolus kundoo*	C
12	Purple rumped sunbird	*Leptocoma zeylonica*	C
13	Brown headed barbet	*Megalaima zeylanica*	C
14	Greater coucal	*Centropus sinensis*	C
15	White browed bulbul	*Pycnonotus luteolus*	C
16	White throated kingfisher	*Halcyon smyrnensis*	C
17	Blue tailed bee eater	*Merops philippinus*	C
18	Bull headed shrike	*Lanius bucephalus*	C
19	Eurasian hoopoe	*Upupidae*	C
20	Indian cormorant	*Phalacrocorax fuscicollis*	C
21	White brested waterhen	*Amaurornis phoenicurus*	C
22	Spotted dove	*Spilopelia chinensis*	C
23	Great egret	*Ardea alba*	C
24	Black rumped flame back	*Dinopium benghalense*	C
25	Oriental magpie robin	*Copsychus saularis*	C
26	Feral pigeon	*Columba livia domestica*	C

Figure-1 Common Myna

Figure-2 Black hooded golden oriole

Figure-3 Red whiskered bulbul

Figure-4 Red vented bulbul

DISCUSSION

Pradhan etal.(2013) recorded about 61 species ofterrestrial and water associated birds belonging to 27 families in around ansupa lake, Odisha. Acharya and kar (1996) prepared a cheaklist of waders in lake chilika,which is a branch of daya river of kuakhai river at saradeipur in Odisha. Bhatt *et al.*, (put year) studied about avifauna diversity in Ankere wetland Karnataka for a period of three years and assessed 44 bird species including waterbirds and water associated birds. Dhakate *et al.*, (2007) reported 149 wetland bird species in corbett tiger reserve. Mohan and Gaur (2008) assessed diversity of birds in Jajiwal wetland and recorded 62 species of birds. A total of 51 birds were recorded representing 18 families in Paradeep Phosphate Limited compound, Jagatsinghpur. From the above views, one can easily say that birds have been explored and studied intensively across the globe and appreciably in India too. Some of the great ornithologists have been working in india like Hame(1888), Barker(1930), Whistler(1922), Ripley(1961), Inskipp etal.(1966) and so many.

During the continuous observation the study identified 26 number of birds belongs to 19 families. The study occurs in the early morning and in the evening, when the activity of birds is more than that off the other times in the whole day. These birds are very sensitive to habitat change and climatic conditions. They are most commonly divided into two catagories i.e aquatic and terrestrial birds. Birds acts as important creatures because it helps human beings in many things like pollination, seed dispersal and also act as scavenger. There are some of the birds which most frequently occures in that study area like common myna, red-vented bulbul, pigion etc. Among these species, most of the species identified in the open farmlands and in the river banks which is quite silent and provides a better atmosphere to the birds.

CONCLUSION

A total number of 26 species birds belongs to 19 families were observed. Due to humans birds face so many types of problems. The most commonly found birds in this area are common myna, red-vented bulbul, red-whiskered bulbul etc. We can solve the problem of birds by giving awareness to the peoples and request them to expose less amount of waste which is harmful to the birds as well as environments. Radiation causes harmful impacts on birds.

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