

## A Survey of Game Birds Distribution and Abundance Inhuman Residential Area of Sanagi Village in Jega Local Government Area, Kebbi State Nigeria

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### **Abstract**

*This project was carried out to study the Distribution and abundance of game birds species in human residential area of Sanagi village, Jega Local Government Area, Kebbi state, Nigeria. To assess the different game birds species and to identify the dominant and the rare species of game birds in the study area (Human Residential area). Morning observation was made between the hours of 06:00am and 10:00am, while the evening visit is from 04:30pm to 06:30pm when the temperature was relatively cool and the birds activities were high. A field guide books was used to identify the birds sighted in the field, a binocular, was used to sight birds from distance, a recording book, for recording the features of the birds sighted. The data collected was subjected to descriptive statistics such as frequency, table, and percentage and statistical package for the social sciences (SPSS) was used. From the results, a total number of five (5) species of game birds were identified in the study area, it was also observed that, morning dove has the dominant number of gamebirds species (29.46%), while the least (13.95) was the cattle egret which has the rare numbers of game birds species. More studies should be carried out so as to remark this work and give a much clearer picture of the composition of game birds in the study area.*

**Keywords:** Species; Gamebirds; Dominants; Rare species and birds

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### **INTRODUCTION**

The concept of game bird distribution and abundance is very important in biodiversity conservation (Ajiboye, 2012). The distribution and abundance are dependent on many a biotic factors of continuous interaction of vegetation, and also includes the effects of continuous interaction of different species of wildlife (Bradley, 2014). Populations of all species are naturally dynamic and change over time. The degree to which they change depends on a complex interaction between the biology of the species and the ecosystem in which they live. Some changes in environmental conditions can be beneficial and lead to an increase in population size(Gonzalez *et al.*, 2016). At the other end of the spectrum, extreme circumstances can result in a disaster decrease in numbers leading to a species becoming locally extinct

(Ajiboye, 2012). Both species abundance and species distribution are closely linked to measures of factors that affect the status of species whether positively or negatively (Donald *et al.*, 2006). These include changes in the extent of habitat, habitat fragmentation, water quality, invasions by alien species, coverage of protected areas and harvesting by humans. Very much the same, tropical forests support the highest quantity of native birds' areas and are home to the best range-restricted bird types on the planet (Alarape, 2002). Game birds are birds that are hunted in the wild legally according to the laws as well as kept in captivity where they are raised often with some difficulties. Birds are feathered, winged, egg-laying vertebrates. These vertebrates survive in a variety of environments across the globe but mostly forests and wetlands. Birds are social animals that communicate with visual signs, calls and songs (Donald *et al.*, 2006). They display social behaviors such as cooperative breeding hunting, flocking and mobbing of predators. Birds live and breed in most terrestrial habitats and on all the seven Continents. As with any natural habitat, wetlands are important in supporting bird species diversity. A survey is a research method use for collecting data from a predefined group of respondents to gain informations. Nigeria is blessed with many species of birds scattered throughout the different ecological regions (Bélanger, and Pilling, 2019). The avifauna of Nigeria include a total of 940 species, of which four are endemic (*Ibadan malimbe*, *Jos plateau indigo*, *Rock fire finch* and *Anambra waxbill*) and five are rare or accidental (species that rarely or accidentally occur in Nigeria). Over 10,000 varied species of birds reside presently on the Earth. Out of which about (83%) dwell in the continental regions while the remaining in islands (Alarape, 2002).

Despite the considerable interest shown in the conservation of Nigerian ecosystems in recent years, little attention has been focused on the associated bird life, its inventory monitoring, distribution, and abundance. Although, bird life resources continue to sustain the rural dwellers in Kebbi State, the danger in it is the destruction of these valuable resources almost at the point of extinction. The ecosystems in Nigeria support a larger diversity of biomass of birds which is traditionally exploited and largely unmanaged. Illegal hunting is the major problem of game birds in Nigeria through this birds are killed and tend to reduce the number count of them (Borrow and Demey, 2012).

Under proper management, birdlife is an important resource to mankind's existence through the roles it plays in the balance of ecosystems, as a preferred material for research and a major base for the recreation and tourism industry. They also serve as raw material for several purposes such as provision of feather for the purpose of beautification of human environment, source of animal protein for human consumption. They also play important roles in scientific research work.

The study aimed and surveyed the distribution and abundance of game birds with specific objectives of determining the different types, dominance and total number of game bird species in the study area. The research work was limited to the survey of game birds distribution and abundance in the study area.

### **Study Area**

The study was conducted in Sanagi Village within Jega Local Government Area Kebbi State. Jega is a Local Government Area in Kebbi state, Nigeria. Its headquarter are in the town of jega. It is situated in extreme kebbi central, it has an area of 891 km and a population of 193 352 at the 2006 census It/ has a Geographical Coordinates 12.2258N, 4.3822 E. and between latitude:12.3667, longitude:4.6333. The mean annual temperature is between 35°C to 40°C, annual rainfall range of 450-1050mm and relative

humidity ranges from 51-79% and 10-25% during rainy and dry seasons. (Suleiman, 2008). The climate condition of Kasar Jega is synonymous with that obtain in Kebbi and Sokoto region. Rainfall which is an important of climate in so far as agriculture is concerned, occupies the period starting mid-may to mid-September in which generally known as wet season. With vegetation of Sudan savannah type and the soil is semi arid type, characterize by frequent weathering and leaching due to poor soil structure and low organic matter content.(Ogungbenro, 2014).

### **Sampling Procedure and Data Collection**

A reconnaissance survey was carryout in the study area, the topography of the area was observed in three different habitat (farmland, fadama and human habitat). In the study area,morning observation was made between the hours of 06:00am and 10:00am while the evening Visit is from 04:30pm to 06:30pm when the temperature was relatively cool and the birds activities were high. On every site we recorded all birds seen or heard during 15 minutes, the first five minutes were used to wait until game bird species were settled due to arrival disturbances and the remaining ten minutes were used to record all species observed or heard on every occasion.

### **Sampling Materials**

A field guide books: whiçh was used to identify the birds sighted in the field.(Atiku, M. et al.,2020).disturbances and the remaining ten minutes were used to record all species observed or heard onevery occasion.

1. A field guide books: which was used to identify the birds sighted in the field.(Atiku, M. et al.,2020).
2. Binocular: which was used to sight birds from distance.
3. Recording book: for recording the features of the birds sighted.

### **Data Analysis**

The data collected was subjected to descriptive statistics such as frequency, table, and percentage and statistical package for the social sciences (SPSS) was used.

## Results & Discussion

Table 1: Abundance, dominant and total numbers of Game Birds in Human Residential area

Scientific Name	Common Name	Local Name	Morning Visit	Evening Visit	Total	Percentage
<i>1.Zenaida macroura</i>	Morning Dove	Kurciya	22	16	38	29.46
<i>2.Spilopelia chinensis</i>	Spotted Dove Wala	Hasbiya	18	12	30	23.25
<i>3.Haemorhous mexicana</i>	House Finch	Bilbili	12	9	21	16.28
<i>5.Ploceus cucullatus</i>	Village Weaver	Sheela Daley	15	7	22	17.05
<i>5. Bubulcus ibis</i>	Cattle Egret	Balbela	8	10	18	13.95
<i>Total</i>			75	54	129	99.99

Source: Field work 2024

In the human residential area (Table 1, the result obtain showed that five (5) species of game birds are founded in the habitat. The morning visit has 75 numbers of game birds species and the evening visit has 54 numbers of game birds species which comprise a total numbers of game birds species of 129 in the human area. The discovered result from (Table 1), showed that the species with the highest numbers of game birds species both morning and evening visit were morning dove 38 (29.46%) while cattle egret has the least numbers of game birds species. This implies that the species of cattle egret were not normally found in human area as a result of feed and water shortage. Similar research shows that Distribution of these game birds could be attributed to food (Baker *et al.*, 2008). the human habitat is greatly affected by human activities such as urbanization project. The variation in distribution and abundance of game birds is relatively affected by the ecological factors and human activities (Atiku, 2020).

## RECOMMENDATIONS

Based on the findings of this study, the followings were recommended.

1. More studies should be carried out so as to remark this work and give a much clearer picture of composition of game birds in the study area.

2. Public awareness should be promoted to the public to take active participation on adequate management of local birdspopulation and habitat protection.

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