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## Avifaunal diversity of Durg, Chhattisgarh state

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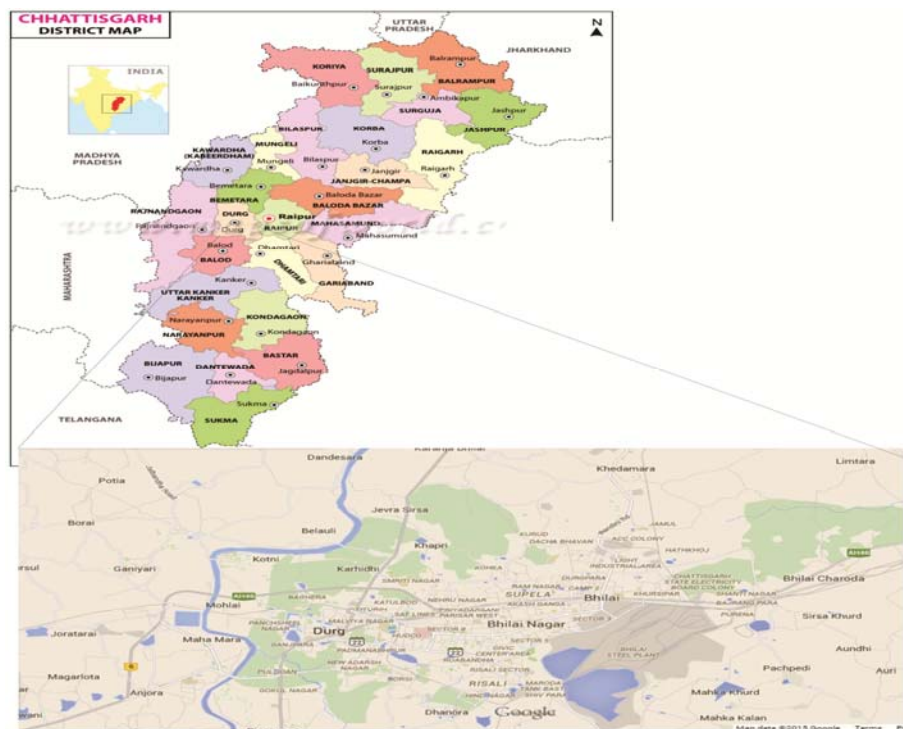
### Abstract

Field survey was carried out in early morning and evening hours to estimate the existing biodiversity of birds in and around campus of Government Science College, Durg city harbors wide variety of avifauna. Variations in food availability in different seasons affected the avifaunal diversity in the study area. This habitat attracted 30 bird species, belongs to 14 different orders.

**Keywords:** Avifauna, Durg, Diversity.

### 1. Introduction

Durg district occupies the southwestern part of the Chhattisgarh plain and possesses belts of hilly country in the south, southwest and northwest, which are endowed with mineral resources and forests. The district occupies the southwestern part of the Upper Sheonath-Mahanadi valley and the bordering hills in the south and southwest. The city lies 317 metres (1,040 ft) above sea level and covers an area of 2,238 square kilometres (864 sq mi), of which 764 square kilometres (295 sq mi) is forest (8.95% of the geographic area). Durg generally has a dry tropical weather which is moderate but on a warmer side in summer season. The peak temperatures are usually reached in May/June and can be as high as 45°C. The onset of monsoon is usually from July and the season extends up to September, with monsoon peaking during July and August. Maximum, average & minimum rain fall of Durg are 1477.2 mm, 1071.16 mm and 781.5 mm per year respectively. Durg is located geographically at 21.19°N, 81.28 °C (Fig. 1).



**Fig 1:** Map of Durg, Chhattisgarh.

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Many species of birds respond to small changes in habitat structure and composition, therefore they serve as good indicators of changes in the environment <sup>[1]</sup>. Out of more than 9,000 bird species of the world, the Indian subcontinent contains 1,300 species or over 13% of the world's bird species <sup>[2, 3]</sup>.

Therefore in this context, in order to assess biodiversity of birds, the present investigation was undertaken to prepare a check list of avifaunal diversity of Durg city.

## 2. Materials and methods

### Survey and site selection

A survey for observation and counting of the birds were carried out near study area in the day time depending on the conditions <sup>[12]</sup> by using binoculars and camera during the year 2014-15. Especially, the activity of birds are usually more during the morning and evening hours, hence the selected time for taking reading was 6.30 am to 9.00 am and 5.00 pm to 6.30 pm <sup>[13]</sup>. For identification and confirmation of the species of birds, Keys suggested by <sup>[14, 15]</sup>. A Field Guide, "Birds of the Indian Subcontinent" by <sup>[16]</sup> is adopted.

Almost all the species mentioned in the checklist were photographed. The study area was visited in morning and evening time when the birds are most active. Some visits were also made in afternoon to check the activities of the avifauna at

different times. The scientific and local names were ascertained based on the key of <sup>[17]</sup>. A check list is prepared as per <sup>[18, 19, 20]</sup>.

## 3. Results and discussions

During the above survey period a total of 30 bird species were recorded (Table 1) belonging to 12 orders, 14 families and 30 genera. Columbidae family represented maximum (5) number of birds followed by Accipitridae (2) and Phasianidae (2) Strigidae (3) Rest of the families represents two or one bird (Table 2). Among the orders Passeriformes represent maximum (43) number of birds followed by Ciconiiformes (8) Falconiformes and Columbiformes (7 bird species); Piciformes and Coraciiformes represent 5 birds each; Charadriiformes consist 4 birds; Cuculiformes and Strigiformes consist 3 birds each; Anseriformes, Apodiformes, Gruiformes, Psittaciformes, Pelicaniformes and Galliformes represents 2 birds each. The least (1) number of bird species was represented by Podicipediformes (Table 1). The earlier studies on birds were undertaken by investigators like <sup>[4]</sup> who studied birds from Bastar district <sup>[5, 6]</sup> and <sup>[7]</sup> listed birds of Kanha tiger reserve, <sup>[8]</sup> studied birds from Pachmarhi, <sup>[9]</sup> reported birds from Salim Ali Lake, Aurangabad, <sup>[10]</sup> studied birds of Pohara-Malkhed forest reserve, while <sup>[11]</sup> studied birds in and around Nanded City of Maharashtra.

**Table 1:** Checklist of common birds found in Durg, Chhattisgarh

Sr. No	Order	Family	Common Name	Scientific Name
1	Galliformes	Phasianidae	Indian Peafowl	<i>Pavo cristatus</i>
			Red Spurfowl	<i>Galloperdix spadicea</i>
2	Anseriformes	Anatidae	Lesser whistling duck	<i>Dendrocygna javanica</i>
			Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>
3	Podicipediformes	Podicipedidae	Little Grebe	<i>Tachybaptus ruficollis</i>
4	Falconiformes	Falconidae	Peregrine Falcon	<i>Falco peregrinus</i>
		Accipitridae	Brahminy Kite	<i>Haliastur indus</i>
			Black Kite	<i>Milvus migrans</i>
5	Columbiformes	Columbidae	Common Pigeon	<i>Columba livia</i>
			Laughing Dove	<i>Stigmatopelia senegalensis</i>
			Spotted Dove	<i>Stigmatopelia chinensis</i>
			Red Collared Dove	<i>Streptopelia tranquebarica</i>
			Eurasian Collared Dove	<i>Streptopelia decaocto</i>
7	Psittaciformes	Psittacidae	Rose-ringed Parakeet	<i>Psittacula krameri</i>
			Plum-headed Parakeet	<i>Psittacula cyanocephala</i>
8	Strigiformes	Strigidae	Barn Fish Owl	<i>Ketupa zeylonensis</i>
			Brown Wood Owl	<i>Strix leptogrammica</i>
			Spotted Owlet	<i>Athene brama</i>
9	Apodiformes	Apodidae	Asian Palm Swift	<i>Cypsiurus balasiensis</i>
			Little Swift	<i>Apus affinis</i>
10	Upupiformes	Upupidae	Common Hoopoe	<i>Upupa epops</i>
11	Coraciiformes	Coraciidae	Indian Roller	<i>Coracias benghalensis</i>
		Alcedinidae	Common Kingfisher	<i>Alcedo atthis</i>
12	Passeriformes	Aegithinidae	Common Iora	<i>Aegithina tiphia</i>
		Corvidae	House Crow	<i>Corvus splendens</i>
			Indian Jungle Crow	<i>Corvus culminatus</i>

## 4. Conclusion

Diversity of avi fauna readily get disturbed, due to anthropogenic activity that increases unsustainability, ecological as well as social danger of the current green revolution methods in turn supported by use of chemical based products by human-being. Human generated waste matter find its way in water stream and polluting the available water thus posing threat to the life of birds and linked food web with potent damage to their habitat and ecosystem. Therefore, there is need to adopt the proper strategy so that the modernization process does not affect the biodiversity and ecosystem. There is also need to simultaneously develop the policies so that only

eco-friendly products are launched through industrial process so that the question of sustainability is taken care of at global level. The present study was focused on the ecological status of avifaunal diversity and density in the study area which is in needed to be conserved for better sustainability and safe ecosystem.

## 5. Acknowledgement

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