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## Faunal diversity of Dehradun Zoo, Uttarakhand

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### Abstract

Fauna play an important role to maintain ecological balance within the environment or ecosystem. The present study provides information about some important faunal diversity and their conservation status as per IUCN (International Union for Conservation of Nature) of Dehradun Zoo, Dehradun, Uttarakhand.

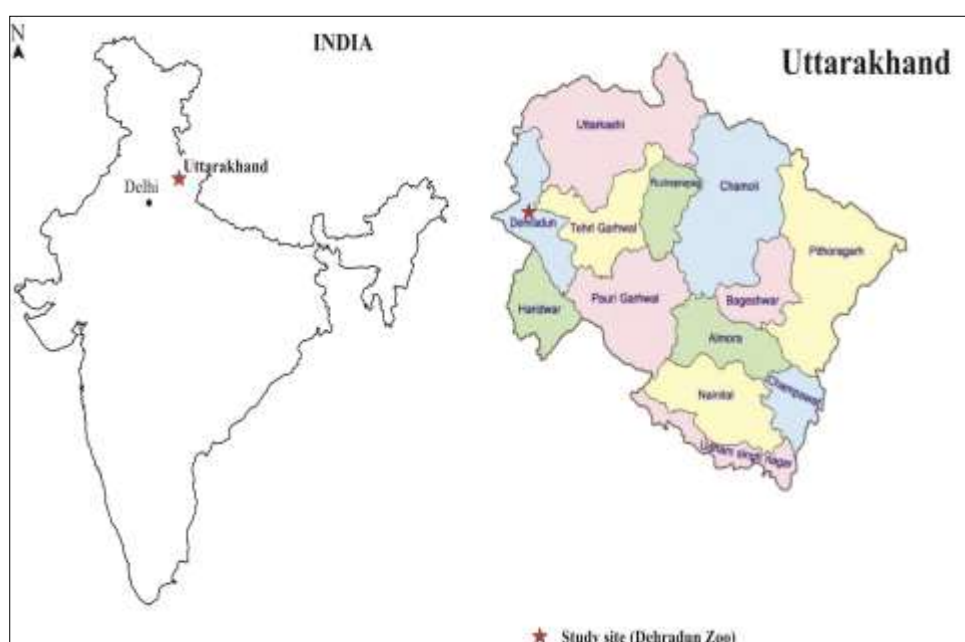
**Keywords:** Fauna, ecosystem, diversity, IUCN, Dehradun Zoo

### Introduction

The term Fauna was first used by Carl Linnaeus in 1745 and it comprises animal diversity of a region (Ghosh, 1996; Sharma, 2013) <sup>[1, 6]</sup>. Diversity in fauna itself represents a healthy environment which possess ecological balance within the vicinity (Ojha *et al.*, 2016) <sup>[3]</sup>. India is a subcontinent and well known for its rich biodiversity throughout the world (Negi, 2010) <sup>[2]</sup>. Here in this communication the faunal diversity of Dehradun Zoo, Dehradun, Uttarakhand with respect to their IUCN status is being represented.

### Materials and Methods

The fauna were surveyed in the Dehradun Zoo during its two visits in summer and winter seasons, 2022. It is located at the foot of Mussoorie hill station (Fig. 1) and is about 10 Kilometers away from heart of the city at 78°07'43'' E longitude and 30°39'02'' N latitude. The animal diversity identified on the basis of information written on the information boards and their cross checking had been done with the help of relevant literature (Prater, 1971; Rathoure & Patel, 2020) <sup>[4-5]</sup>.



**Fig 1:** Location map of the Dehradun Zoo.

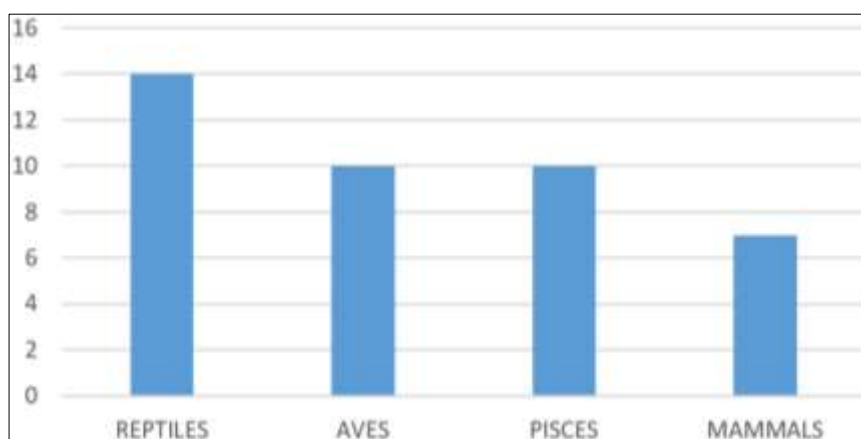
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## Results and Discussion

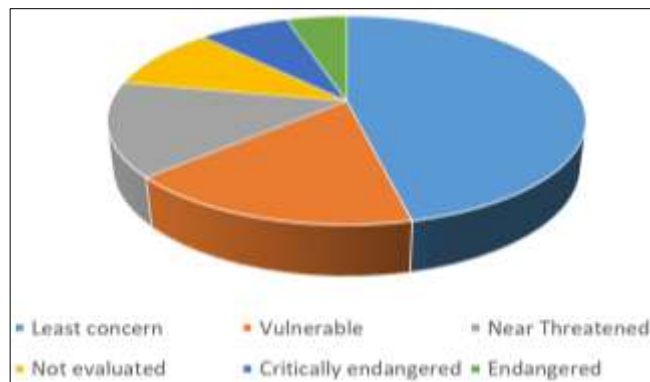
On the basis of the study following observations and results have been made which are summarized in the following Table.

**Table 1:** Faunal diversity recorded from the Dehradun Zoo, Uttarakhand and their IUCN status

S.No.	Zoological name	Common name	Conservation status as per IUCN
<b>Aves (Birds in Aviary)</b>			
1.	<i>Ara ararauna</i>	Yellow macaw	Critically Endangered
2.	<i>Ara chloropterus</i>	Red Green macaw	Critically Endangered
3.	<i>Chrysolophus amherstiae</i>	Lady Amherst's pheasant	Least concern
4.	<i>Dromaius novaehollandiae</i>	Emu	Least concern
5.	<i>Lophura leucomelanos</i>	Kalij pheasant	Least concern
6.	<i>Meleagris gallopavo</i>	Turkey	Near Threatened
7.	<i>Nymphicus hollandicus</i>	Cockatiel	Least concern
8.	<i>Psittacula krameri</i>	Rose ringed parakeet	Least concern
9.	<i>Psittacula eupatria</i>	Alexandrine parakeet	Near Threatened
10.	<i>Struthio camelus</i>	Ostrich	Near Threatened
<b>Reptiles</b>			
11.	<i>Crocodylus palustris</i>	Crocodile	Vulnerable
12.	<i>Gravialis gangeticus</i>	Gharial	Critically Endangered
13.	<i>Geoclemys hamiltonii</i>	Spotted pond turtle	Endangered
14.	<i>Lissemys punctata</i>	Indian flap shell turtle	Vulnerable
15.	<i>Melanochelys trijuga</i>	Indian black turtle	Least Concern
16.	<i>Bungarus caeruleus</i>	Common krait	Not evaluated
17.	<i>Daboia russelii</i>	Russell's viper	Least Concern
18.	<i>Eryx johnii</i>	Common sand boa	Near Threatened
19.	<i>Malayopython reticulatus</i>	Reticulate python	Least concern
20.	<i>Naja naja</i>	Indian cobra	Least concern
21.	<i>Pangshura tecta</i>	Indian roofed turtle	Vulnerable
22.	<i>Python bivittatus</i>	Burmease python	Vulnerable
23.	<i>Python molurus</i>	Rock python	Near Threatened
24.	<i>Ptyas mucosa</i>	Indian rat snake	Least concern
<b>Mammals</b>			
25.	<i>Axis axis</i>	Chital	Least concern
26.	<i>Boselaphus tragocamelus</i>	Nilgai	Least concern
27.	<i>Cervidae indicus</i>	Two horned deer	Near Threatened
28.	<i>Macaca mulatta</i>	Monkey	Least concern
29.	<i>Panthera pardus</i>	Leopard	Vulnerable
30.	<i>Rusa unicolor</i>	Sambar	Vulnerable
31.	<i>Semnopithecus entellus</i>	Langoor	Endangered
<b>Pisces (Fishes in Aquarium)</b>			
32.	<i>Andinoacara rivulatus</i>	Green terror fish	Least Concern
33.	<i>Astronotus ocellatus</i>	Oscar fish	Not evaluated
34.	<i>Atractosteus spatula</i>	Alligator fish	Least concern
35.	<i>Balantiocheilos melanopterus</i>	Silver Shark fish	Vulnerable
36.	<i>Carassius auratus</i>	Gold fish	Least concern
37.	<i>Danio rerio</i>	Zebra Danio fish	Least concern
38.	<i>Herichthys cyanoguttatus</i>	Texas cichlid	Least concern
39.	<i>Metynnis argenteus</i>	Dollar fish	Not evaluated
40.	<i>Parachromis managuensis</i>	Jaguar fish	Least concern
41.	<i>Peprilus triacanthus</i>	Buffer fish	Not evaluated



**Fig 1:** Bar diagram represents number of species of each group in the zoo



**Fig 2:** Pie diagram showing IUCN status of faunal diversity in the zoo

The faunal diversity of the zoo is mainly contributed by aves, reptiles, mammals and pisces. Among the groups, Reptiles dominant (14 species) followed by Aves and Pisces (10 species of each group). However, least is being presented by Mammals (7 species). Overall 41 faunal species were recorded which shows a rich diversity of fauna in the zoo area. Out of total species, 19 are under least concern, 7 are vulnerable, 6 are near threatened, 4 are not evaluated, 3 are critically endangered and rest 2 come as endangered species as per IUCN red data.

### Conclusion

Since the area comes under foot of Mussoorie, the lush green environment provides better suited place for a large range or number of fauna to be included in the zoo. However, proper monitoring is needed, while entering of visitors as a precaution to reduce risks of life both for the visitors and the wildlife.

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