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Short Review Paper

Exploring the fauna of Maitri Garden, Bhilai, Chhatisgarh, India

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Abstract

The aim of the current survey was to explore the fauna of Maitri Garden located in Maroda tank 12km from Durg city of Durg-Bhilai district of Chhattisgarh, India. This survey was the first approach to the garden to prepare checklist of 24 species representing 22 genera under 12 families. Zoos are increasingly introducing digital technologies to enhance visitors' experience of viewing animals, and promote the welfare and wellbeing of captive animals. In the Maitri Garden, among the captive animals some are endangered species which are conserved and are helpful for the betterment of those animals.

Keywords: Animals, Maitri Bagh, Bhilai, Chhattisgarh.

Introduction

The role of the zoo has evolved to prioritize research, education and conservation. In the past the zoos were only the means of entertainment of the people and then slowly it became the field of animal research. It is now used to conserve the endangered species as well as others too. Maitri Bagh situated in Bhilai district of Chhattisgarh is a good example of a spacious, realistic and species sensitive habitats of the animals.

It is not a floral garden but a zoo. But for the entertainment of the public, some floral arrangement, fountain, boating, etc is also done. By the help of Mr. Rajat Darsariya, the Assistant Manager of the Zoo, Dr. Dubey, Veterinary Doctor and Mr. Gopichand, the Head Caretaker, it became easy to know about the animals.

The annals of Zoological Survey of India (ZSI) reflect an eventful beginning for the Survey even before its formal birth and growth[1]. Globally the zoos have contributed billions of pounds to conservation causes, have trained and employed thousands; published scientific articles on biodiversity conservation, in the fight to save both species and their habitats. The research categories includes studies in pure and applied biological sciences eg. behaviour, genetics, medicine, nutrition, population management and reproduction, etc.

This can be seen in the reserved forest also. Reserved Forest is as an area mass of land duly notified under the provisions of India Forest Act or the State Forest Acts having full degree of protection. In Reserved Forests all activities are prohibited unless permitted. Earlier some animals like Elephants, Asiatic lion, Guniea pig, etc. were also conserved in the Maitri Garden but in present the animals which are kept are given in the Table-1. Among these animals there are few which are included in endangered species like the Bengal tiger, White tiger, Sloth bear, Leopard, Jackal, Water monitor Lizard, Barking deer, Hyena and Nilgai which are not only found in Chhattisgarh but all over the country. As they are conserved here so their population can be increased and they can come in normal population.

The committee of National zoological park of Washington examines the historic and recent problems with animal health and animal science practices at the zoo, including recent reports on zoo operations and a scientific examination of the causes of recent animal deaths[2].

Animals are kept in pairs for their easy reproduction. Table-2 shows the number of males, females and their youngones. Maximum animal's youngones are sent to the forest or other zoos after they growup. By seeing the records made by the manager of the zoo, it was conformed that the maximum animals brought here live upto their complete life age.

It can be seen in the Table-3 that the animals are fed in the zoo according to their habit. The carnivores are given flesh but first sterilized by diping in boiling water and then given to the animals. Khichdi is given to the herbivores which includes pumpkin, rice, wheat bran, pulses, soyabean, corn flour, salt, jou, jiggery, etc. providing the complete nutrition to animals.

These all ingredients are measured before cooking and fixed amount of the ingredients are added in the Khichdi.

There is a definite amount of food for each animals like one crocodile is given 1.5kg of fish in one day, 40kg of grams for all the dears in one day, etc. In one day 220 kg of flesh and 25 kg of fish is required.

Table-1
Names of the animals

Family	Common name	Species
Felidae	Bengal tiger	*Panthera tigris*
	White tiger	*Panthera tigris tigris*
	Leopard	*Panthera pardus*
	Jackal	*Canis aureus indicus*
	Hyaena	*Hyaena hyaena*
	Toddy cat	*Paradoxurus hermaphroditus*
Ursidae	Himalayan bear[1]	*Ursus thibetanus*
	Sloth bear	*Melursus ursinus*
Cervidae	Spotted dear[2]	*Axis axis*
	Barking dear	*Muntiacus*
	Antelope[3]	*Antilocapra americana*
	Blackbug	*Antilope cervicapra*
Muridae	Whitemouse	*Mus musculus*
Cercopithecidae	Common langur	*Semnopithecus schistaceus*
	Rhesus	*Macaca mulatta*
	Bonnet	*Bonnet macaque*
Alligatoridae	Alligator	*Gavialis gangeticus*
Crocodilae	Crocodile[4]	*Crocodylus niloticus*
Pythonidae	Python	*Python molurus*
Bovidae	Nilgai	*Boselaphus tragocamelus*
Testudinidae	Tortoise	*Geochelone elegans*
	Star tortoise	*Geochelone elegans*
Hystricidae	Indian porcupine	*Hystrix indica*
Varanidae	Water monitor lizard	*Varanus salvator*

Table-2
Number of the animals

Animal	Males	Females	Youngones	Total
Bengal tiger	3	3		6
White tiger	4	2		6
Leopard	1	1		2
Hyena	3	1		4
Jackal	7	2		9
Himalyan bear	1	1		2
Sloth bear	1	1		2
Spotted dear	3	7	3	13
Barking dear	1			1
Antelope	9	15	10	36
Black Bug	3	5	2	10
Star Tortoise	1	1		2
Tortoise	3	2		5
Common langur	2			2
Rhesus monkey	8	10		18
Bonnet monkey	3	1		4
Alligator	2	2		4
Crocodile	1			1
Python	4	6		10
Nilgai	4	2		6
White mouse	6	4		10
Toddy cat	1			1
Indian porcupine	1			1
Water monitor lizard	1			1

Figure-1
Spotted dear

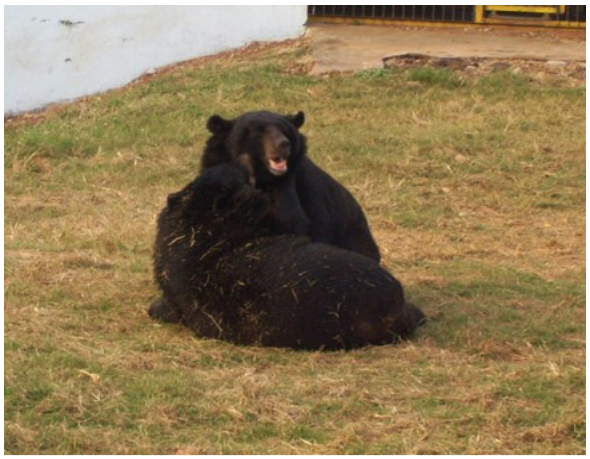

Figure-2
Himalayan bear

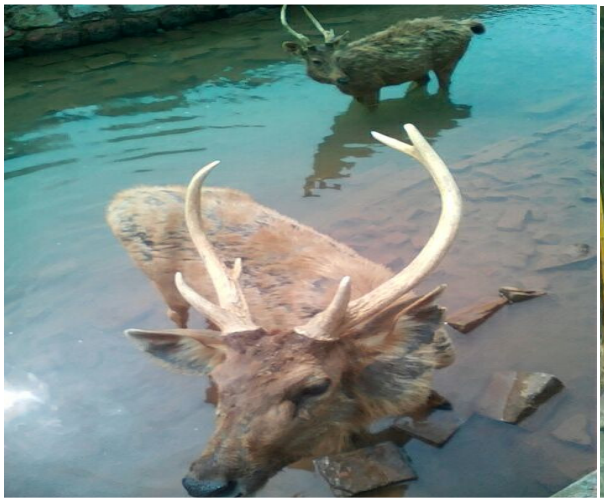

Figure-3
Antelope

Figure-4
Crocodile

Maitri garden has a very great contribution in conservation of many species. Conservation aims at preserving our natural resources in such a manner that the present needs are fulfilled and the future needs are taken care of. It gives due attention to growing needs of population at present and in future. Also, it emphasizes the sustainable utilization of the present biological resources so that these are made available for future generationalso[3]. The animals are observed daily by the veterinary doctor that whether they are caught by any disease and then if it is so then they are isolated and well treated. The doctor told that caring and treatment of the animals are possible only if they are in a proper area but in forest it becomes difficult to take care of these. So, for the endangered species it is a good place where they can be conserved. The caretaker explained that when the animals give birth to youngones then the female with her child is separated to protect them from the males as they are very aggressive in nature and more care is given to them. The breeding period and season of the animal is also not affected in the zoo, means its same as their natural breeding period and season.

Results

The survey of the zoo shows that a zoo or national park has some disadvantages but the advantages are more. The result of the survey is positive towards the zoo and national parks. But as we know that there is always a negative point in every thing so one defect was found in the zoo that for some animals the area provided, becomes small for their movement. The solution for this which is done by the department is to have fast for the animals in one day of the week means on each Monday for every week they are not given food. The animals in the Maitri garden were comfortable as proper care is taken by the zoo people. Each report of the animals i.e. their death, disease, food, etc. is given to the head office of Delhi time to time. Even before and after the postmortem of the dead animal, the zoo takes permission from Delhi. In our country as well as in the whole world there are several animals which are going to be endangered or threatened. It is very necessary to conserve them as it disturbs the ecosystem and so for their conservation, several Zoos, National parks and Santuries are made where In-situ and Ex-situ conservation is done easily.

Table-3
Food provided to the animals

S.N.	Animal	Food
1	Bengal tiger	Flesh
2	White tiger	Flesh
3	Leopard	Flesh
4	Hyena	Flesh
5	Jackal	Flesh
6	Himalyan bear	Mixed khichdi
7	Sloth bear	Mixed khichdi
8	Spotted dear	Grass+soakedgram+bean
9	Barking dear	Grass+soakedgram+bean
10	Antelope	Grass+soakedgram+bean
11	Black Bug	Grass+soakedgram+bean
12	Star Tortoise	Readymade food
13	Tortoise	Readymade food
14	Common langur	Fruits+grams+khichdi
15	Rhesus monkey	Fruits+grams+khichdi
16	Bonnet monkey	Fruits+grams+khichdi
17	Alligator	Fish
18	Crocodile	Fish
19	Python	Live chicken or other small animals
20	Nilgai	Grass
21	White mouse	Grains+fruits+vegetable
22	Toddy cat	Fruits+insects
23	Indian porcupine	Fruits+vegetable
24	Water monitor lizard	Flesh

Conclusion

By observing the 12 families and 24 species of the animals it is concluded that Maitri Garden as well as the other zoos, national parks and sanctuaries are a better way to conserve and studythe animals. The animals are in a good condition and even it was known that one white tiger is 21 years old and it is surving with good health while the common age of tigers are 15-17 years. This shows that a proper care of animals are taken. The animals are kept isolated in pairs for their proper care so that there number can be increased whose best example is the White tiger of Maitri Bagh whose population increased and many of them where left in the forest and transferred to the other zoological parks. The new thing which can be done is that the DNA of the animals can be isolated and manipulated by modern biotechnologies. The disease can be detected and certain precautionary measures are possible to take for protecting the animals from being decreased. The zoo helps in advancement of the areas such as basic research, professional training, and technology development. Basic research may include determining dietary needs or reproductive cycling patterns. Professional training helps to prepare the next generation of wildlife biologists and veterinarians. Hence, it concludes that the zoos are very helpful in the means of conservation.

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