

Preliminary Study on Jungle Mahal Zoological Park of Jhargram District In West Bengal

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Abstract- Jhargram Zoological Park is so called Junglemahal Zoological Park that was formerly Jhargram Mini Zoo which is a territory of some flora, fauna and caged animals. It is a place for outsiders for their enthusiastic purpose including research too though the park is now acting as a zoo which is largest in lateritic Southwest Bengal of West Bengal State. A few decades ago it was a mini park mainly for spotted deer and named as Deer Park. The present Zoological Park harbours mammals, birds, snakes, reptiles, a large number of plants and ornaments. The ethnicity and beauty of nature attracts many people to visit the site. The present paper therefore is a preliminary record of study that might be knowledge store centre for beginners. The site may be a unique place for botanists and also for bird lovers. Winter and summer may be a fine time or seasons to study here in dry deciduous lateritic sal (*Shorea robusta*) dominated forest.

Keywords- Junglemahal Zoological Park, flora, fauna and conservation.

I. INTRODUCTION

Junglemahal Zoological Park (JL. No. 395) is unique for its position at Khas Jungle area and exhibits prominent status because it is situated in heart of the town Jhargram which is called 'Arayna Sundari' a famous place now district town by the lap of sal-mohul-piyal pants. It falls under lateritic forest of Jhargram which is dry deciduous and sal (*Shorea robusta*) dominated though associate plant species found here are mohul, piyal, karam, kusum, kend, piyasal and kumbhi (Das, 2019). The forest is discontinuous though the entire tract is continuous with other forests of neighbouring districts like Jharkhand, Odisha and Bihar. Wildlife of this area is dominated by Dalma Elephant frequently found in dry deciduous sal forest. Birds, reptiles and mammals are common but often found as rare. Common birds, snakes, reptiles and amphibians are found in different habitats. The so called habitats are sal forest, jungle, degraded land and plantation stand filled with Eucalyptus and Acacias. Cashew and tree tulip including kadam (*Anthocephalus* sp.) are found here and there. The zoo is situated near the town and the area is sal dominated pocket aside the southeastern railway Tatanagar and Kharagpur way. Metallic road run near by which is

Kadamkanaan and Bandhgora. The site has animals, plants, varied microbes from small to smaller ecosystem. The ecosystem found here are in terrestrial condition as well as in aquatic habitat. As a whole the study is wildlife which is interesting for students including interested persons. According to general sense wildlife traditionally refers to undomesticated animal species, but has come to include all plants, fungi, and other organisms that grow or live wild in an area without being introduced by humans (Wikipedia, 18:49p.m. on 03.02.2018). Wildlife can be found in all ecosystems. The legal definition of wildlife is animals living their natural habitat and not within the possession or control of humans (www.duhaime.org as legal dictionary). So, wildlife is versatile and we always think that it is a global definition and that must fulfil the criterion like wild organisms from smaller to larger one in a place. In our India, we are proud because we have a versatile range of wildlife *i.e.* from animals to small microorganisms including plants. As for example we see lion, tiger, bird, leopard, deer, giraffe, rhinoceros, gray wolf, porcupine, monkey, cheetah like organisms, bear, squirrel, wild boar, hare, bat, otter, wildcat, junglecat, elephant, jackel etc. Some animals are not in Indian origin but introduced from Africa or Australia. Common example is hippopotamus from Africa and Cockatoo from Australia. By and large, we have a good number of bird species introduced from foreign country like Cockatoo that hired from Australia which is a parrot like bird. It has its 21 species belonging to the bird family Cacatuidae, that only family in the superfamily Cacatuoidea. Macaw is a bird introduced in India from Amazon, being a colourful it is used widely in zoo and in circus. Hill myna is an indigenous bird but used for various purposes also used as a case bird. We see common birds everywhere but some are foreign birds which have been introduced from foreign countries to India during winter seasons from different parts of the globe. Storks, bar-headed geese, lesser-whistling duck, falcon (bird of prey) are the examples of natural migrants. They cover a long distance during migration when the own country become very cooler and not fit for them. A comparative speed limit for the birds is important because they cover a long distance during movement. In land Ferrari F12 Berlinetta can run with a speed 340 km/h, airbus A320 run 871km/h and space shuttle with a speed 28,000 km/h whereas, falcon drive with a speed of 320

km/h. (page no. 31, Hello 6E, 70th Issue, 2017, for-in-flight reading only). So, we cannot recognize what the birds can do during long movement and how they make them fit for long flight, even the direction through which they come and go. It is very interesting that in an ecosystem everything is possible but a reason behind it is present.

Not only animals, plants are common in wild condition. But we, the citizens consider some plants in every wildlife garden for their patch. These are sunflowers, foxgloves, thyme, lavender, honeysuckle, rowan, ice plant, firethorn, barberry and purple loosestrife. Along with these we always try to keep the natural one. Our area have a large number of vegetation, so we are proud and therefore we keep these in *in-situ* condition. We, introduce some plants and wildlife (animals) from outside and therefore these site is called *ex-situ* conservation. In a specific case we keep them and give them food as they like, but try to make them easy for movement and comfort to stay.

Remembering the concept in mind we, the students of our team headed by Dr. Debabrata Das, Associate Professor and Head, Lalgarh Govt. College, Jhargram decided to visit Junglemahal Zoological Park (Jhargram Zoo) on 6th January, 2018 from our College to make a report on field study under the ENVIS (Compulsory paper-Project) project for the academic session 2017-2018. It was very nice day and we visited as a group to study wildlife of the Zoo by direct watching there. We recorded some wild animals and plants there and took photographs on some animals that are interesting. At entry point we studied some flowering plants as ornamentals (Table 4). Not only that the natural vegetation and plantation stand have been included here to present the data in a common manner. Therefore, our study includes study of plants and animals of local kind as well as some one which are confined to Junglemahal zoological park under cage condition.

II. STUDY AREA

Study area includes the complete area of Junglemahal Zoological Park in Jhargram area of West Bengal. It is under the Dhabani forest beat of Jhargram Forest division. The Divisional Forest Officer's office is situated at Ghoradhara, Jhargram, 721507. The Zoo has been established as a Deer park in the year 1980, within a patch of natural forest at Khasjungle. The earlier name after Deer Park was Jhargram Mini Zoo (up to 2005) and now considered as Junglemahal Zoological Park (from 2016 onwards). The total area is 33 acres of land which is filled with natural *sal* (*Shorea robusta*), *mohul* (*Madhuca indica*) and *piyal* (*Buchanania lanzan*) trees. It falls under Dhabani range and Dhabani forest beat. The zoo is situated in between Kadamkanan and Bandhgora metallic

road. Lush green vegetation during monsoon and post monsoon followed by dry deciduous forest dominated by sal covering the sites and make the land a ground for eco-tourism. People along with the students from different organizations come here to visit and to study. Researchers actively engaged or research purpose. It is approximately 3 km away from the town Jhargram connected by metallic road. South eastern railway passes nearby and connected Kolkata and makes it easier to come into the site.

III. OBJECTIVES OF STUDY

Study includes- Study of Ecosystem and present scenario of the environment, study of wild plants and the status, study of wild animals in wild, Study of wild animals in cage, Study of complete environ along with the temperament of the animals and the atmosphere, Suggestion forwarding improvement of the scientific as well as local management of the zoo and suggestion related to our management for study of next year students

IV. MATERIALS AND METHODS

Following are the materials used in study. These are Photo camera, mobile phone and sound recorder, Tape, scale, Abeny's level, Pen, pencil, field book, eraser, GPS, map, study materials and book as guide books, Magnifying Glass, Binocular (Olympus). Methods used are- Literature was used as ready references, Books ⁽¹⁻¹⁶⁾ used to identify flora and fauna, Tape and scale used to measure the units, Photo-cameras used to record the photographs, Sound recorder was used to record the calls, GPS was used to record the position, Abeny's level was used to record the height of the trees, Binoculars used to see the distance objects, Local people in and around the zoo helped us to collect the knowledge on wildlife, Superintendent of Zoo and authority helped us to study in field, Idea of our field guide and supervisors idea was used to collect data, Knowledge on some explanations and presentation patten was used in laboratory of College and from internet time to time.

V. RESULTS AND DISCUSSION

In a nutshell, the overall result is as below:

(1)As the present status of the zoo is upgrading from Deer Park to Mini Zoo to Zoological Park (Full) so that time is required to make it complete in all respect. The work is going on so that, hope that in near future it will come as a big zoo in southwest Bengal. The overall environ is good and scenario is beautiful, (2) Wild plants are naturally found in the jungle which includes-Sal (*Shorea robusta*), Piyal (*Buchanania*

lanzan), Asan (*Terminalia crenulata*), Mahul (*Madhuca indica*), Kusum (*Schleichera oleosa*), Khiris (*Samanea saman*), Siris (*Albizia lebbeck*), Kumbhi (*Carya arborea*), Sissoo (*Dalbergia sissoo*) and teak (*Tectona grandis*). Bamboos, Palmyra palm and datepalm is also available here. Medicinal herbs like *Vernonia anthelmintica*, *Smilax ovalifolia*, *Hemidesmus indicus*, *Ichnocarpus frutescens*, *Elephantopus scaber* and *Aegle marmelos* are common. Low frequency of herbs and sedges has been observed which need to serve as fodder for deer and blue bull (Nilgai). Wild mushrooms are available that hampers the growth of plants mainly trees, (3) Wild animals found in wild are-Jackal, rabbit, rat and snakes. Some other animals available like wolf and porcupine. Some birds like back hooded oriole, egret, cattle egret, pond heron, white breasted water hen, white breasted kingfishers, green bee-eaters and spotted doves are common, (4) Wild animals in case found here are Spotted deer (*Axis axis*), Barking deer (*Muntjacs muntjak*), Asian black bear (*Ursus thibetanus*), Nilgai/ Blue bull (*Boselaphus tragocamelus*), porcupine (*Hystrix sp.*), Leopard (*Panthers pardus*), Jungle cat (*Felis chaus*), Golden Jackal (*Canis aureus*) and Assam macaque (*Macaca assamensis*). A large number of birds including peafowl, kalij pheasant, parakeet, lesser adjutant stork, hill myna and kite including Indian vulture and kites are present in special cases. We have seen Eurasian eagle owl that is collected from local Jhargram market. Some butterflies and common birds recorded from the study sites are presented in table 1 and table 2 respectively. Snakes of varied types were presented in Table 3, (5) Study of complete environ along with the temperament of the animals showed a significant atmosphere in which they feel a very close environment and need very careful attention day by day. The food and special care regarding their disease and pests should be controlled regularly so that the authority needs much more skilled labour and experts, (6) Scientific naming of plants, butterflies etc. should be incorporated. Some names are wrong as per spelling which need immediate correction. Best example suit for lesser adjutant stork. The species is globally threatened. Vultures are critically endangered, so it needs special attention; even need enough space to move the species. Local management means observation on animals and birds daily basis. A few no. of watchers are not enough to work for a large zoo. Scarcity of food and fodder is a big problem for deer because on the ground no grasses have been observed in winter, (7) we should be very punctual to study in field because we have a minimum time but need a huge data for presentation. So, previous study and list preparation of flora and fauna on Jungle mahal Zoological Park is essential. Therefore, pre prepared lists have to made before study in field that can give us more meaningful idea to study on wildlife study in Jungle mahal of Jhargram Zoological park.

VI. CONCLUSION

Study in field and in College is essential to study on environmental study. But to study in field said to be vivid if surveyor takes data and present data in a sequential way. In that sense we, the third year students of Lalgargh Govt. College, Jhargram have prepared field data in our report book that gives us pleasure during study in College. A general information on the plants and animals have been made on the basis of survey by some students who are under the back ground of arts therefore we are the first time presenters who are going to present the data on the scientific basis. This perhaps due to our interest and even the group interest too. Not only that our guide was free access who have keen interest to do something newer to the students. In this way we have made this article like a vivid presentation to our readers that have no idea of the plants and animals earlier. Bookish knowledge therefore fortified to us in presence of field data which are collected by us in field in various way. We always remember it; never forget it to recognize the same for our own purpose.

Table 1. Some Butterflies of the Zoological Garden, Jhargram

Sl. No.	English Name	Bengali Name	Scientific Name
1.	Common Tiger	Dorakata Bagh	<i>Danaus genuta</i>
2.	Painted Jezebel	Banalata	<i>Delias hyperata</i>
3.	Common Crow	Manjushri	<i>Euploea core</i>
4.	Plain Tiger	Arjun	<i>Parantica aglea</i>
5.	Peacock Pansy	Banmayuri	<i>Percis iphita</i>
6.	Common Leopard	Sahibagh	<i>Phalanta phalantha</i>

Table 2. Some Common birds in Junglemahal Zoological Park

Sl. No.	English Name	Scientific Name
1.	Common Myna	<i>Acridotheres tristis</i>
2.	Common Kingfisher	<i>Alcedo atthis</i>
3.	Asian Openbill	<i>Anastomus oscitanus</i>
4.	Indian Pond Heron	<i>Ardeola grayii</i>
5.	Greater Coucal	<i>Centropus sinensis</i>
6.	Pied Kingfisher	<i>Ceryle rudis</i>
7.	Greater flameback	<i>Chrysocolaptes lucidus</i>
8.	Rock Pigeon	<i>Columba livia</i>
9.	Oriental Magpie robin	<i>Coprychus saularis</i>
10.	Indian Roller	<i>Coracias benghalensis</i>
11.	Large billed Crow	<i>Corvus macrorhynchos</i>
12.	House Crow	<i>Corvus splendens</i>
13.	Rufous treepie	<i>Dendrocitta vagabunda</i>
14.	Black drongo	<i>Dicrurus macrocerus</i>
15.	Asian koel	<i>Eudynamis scolopacea</i>
16.	Asian Pied Starling	<i>Gracupica contra</i>
17.	White-throated kingfisher	<i>Halcyon smyrnensis</i>
18.	Blue-throated Barbet	<i>Megalaima asiatica</i>
19.	Coppersmith Barbet	<i>Megalaima haemacephala</i>
20.	Green Bee-eater	<i>Merops orientalis</i>
21.	Black hooded oriole	<i>Oriolus xanthornus</i>
22.	Tailor bird	<i>Orthotomus sutorius</i>
23.	Little Cormorant	<i>Phalacrocorax niger</i>
24.	Rose-tinged Parakeet	<i>Psittacula krameri</i>
25.	Red-vented Bulbul	<i>Pycnonotus cafer</i>
26.	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>
27.	Spotted Dove	<i>Streptopelia chinensis</i>
28.	Chestnut-tailed starling	<i>Sturnus malabaricus</i>
29.	Jungle Babbler	<i>Turdoides striatus</i>
30.	Common Hoopoe	<i>Upupa epops</i>

Table 3. Snakes of the cases

Sl. No.	English Name	Scientific Name
1.	Common Vine Snake (Beng. - Loudaga)	<i>Ahaetulla nasuta</i>
2.	Brown Vine Snake (Beng. - Dhurar-Badami)	<i>Ahaetulla pulverulenta</i>
3.	Indian Rat Snake (Beng. - Dhanna)	<i>Ptyas mucosa</i>
4.	Burmese Python (Beng. - Ajar)	<i>Python molurus bivittatus</i>
5.	Indian Rock Python (Beng. - Moval)	<i>Python molurus molurus</i>

Table 4. Some Ornamentals in Zoo

Sl. No.	Name	Scientific Name
1.	Century plant	<i>Agave americana</i>
2.	Aster	<i>Aster spp.</i>
3.	Calendula	<i>Calendula officinalis</i>
4.	Chrysanthemum	<i>Chrysanthemum indicum</i>
5.	Cosmos	<i>Cosmos bipinnata</i>
6.	Dahlia	<i>Dahlia pinnata</i>
7.	Petunia	<i>Petunia orange</i>
8.	Rose	<i>Rosa x hybrid</i>
9.	Salvia	<i>Salvia splendens</i>
10.	Marigold	<i>Tagetes erecta</i>
11.	Zinnia	<i>Zinnia x hybrid</i>

VII. REMARKS

We should be aware about the Conservation of Natural Resources locally because these are the assets that must be keeping alike for our sustenance. It is a big challenge to preserve the natural history and conserve the living being that under the heading biodiversity. This means that we should be sympathetic to all organisms to make the tight bonding between living and non-living components of the ecosystem for our existence in future. Therefore, we must follow:

Do and Don't

Purchase tickets from the Counter, Open your eyes and ears but close your mouth, Take help from authority, Purchase ticket for camera use if applicable, Do not disturb animals and others, Do not disturb or irritate wild animals, Do not pluck flowers and fruits that are in wild, Do not throw garbage and plastics, use dustbin to place the garbage, Do not feed the animals, Keep safe distance during visit animals present in case, Do not go inside the jungle, Do not go towards dry leaves and litter that might be the habitat of wild snakes, Go systematically towards each word so that you can get ready knowledge, Use shed during rest or any kind of discussion and lastly Do not misbehave with staff and others.

Photographs (1-12)



Fig. 1 Study group;



Fig. 2 Asian Black Bear;



Fig. 3 Kalij Phaesant,



Fig. 4 Lesser Adjutant Stork



Fig. 5 Indian Porcupine,



Fig. 6 Eurasian Owl,



Fig. 7 Peafowl;



8 Assam Macaque (*Macaca assamensis*)



Fig. 9 Blue Bull



Fig. 10 Vine snake in Zoo;



11 Marsh Crocodile;



Fig. 12 Asian elephant

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