



A PROJECT REPORT ON

"ZOO MANAGEMENT"

DEPARTMENT OF ZOOLOGY



GUIDED BY:

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CLASS- +3 3rd Year (6th SEM)

UNI. ROLL NO :-

S05321Z00003

REGD NO:- 14548/21

CERTIFICATE

It is hereby to certify that ,the original and genuine investigation work has been carried out to investigate about the subject matter and the related data collection and the investigation has been completed solely ,sincerely and satisfactory done by, Karunalata Kanday student of class +3 6th sem under the roll no-S05321Z00003 for the academic session 2023-2024.

Regarding the investory project entitled "Project on Zoo Management".

To the best of my knowledge this project was the original work of the candidate and has not been submitted in other university or institution.

I am satisfied with the project report and recommend its acceptance.

Sarajini Ekka

Mrs. Sarojini Ekka.
[HOD OF ZOOLOGY]

ACKNOWLEDGEMENT

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals. I would like to extend my sincere thanks to all of them.

It has been great honour and privileged to field visit at "Indira Gandhi Zoo Park, Rourkela".

I am highly indebted to Mrs. Sarojini Ekka ma'am and Muskan Sahoo ma'am for the guidance and constant supervision as well as for providing necessary information regarding the project and also for their support in completing the project. Her constant guidance and willingness to share her vast knowledge made us understand this project and its manifestation in great depths and helped us to complete the assigned tasks on the time.

I would like to express my gratitude towards my parents and members of Indira Gandhi zoo Park, Rourkela for their kind cooperation and encouragement which help me in completion of this project.

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INTRODUCTION



Zoo (a short form of zoological park and zoological garden), zoo is a place where animals are kept behind the enclosures.

Main purpose of zoo is :

- 1. For education**
- 2. For conservation**
- 3. For recreation**
- 4. For research**

ZOO MANAGEMENT: Zoo management is the managing of a zoo. The first priority of managing a zoo is to keep the business running : zoo management has to ensure that the business is run properly and that visitors are attracted to the zoo.

ZOO MANAGEMENT is divided into 2 types :

- 1. Animal management**
- 2. Staff management**

Animal Management : Three things are covered by animal management :

- 1. Health management**
- 2. Nutritional management**
- 3. Enclosure management**

Staff of the zoo management have to ensure timely that every animals are getting vaccinations timely or not for their good health. They also check daily feed schedule of animals by which animals get nutrition. They also clean and disinfect the area where animals kept for avoiding the infection and for the better health and hygiene of the animal.

Staff management : Includes all the things which fall under Human resources. They have to play their important roles according to their posts .They have to take care or ensure :

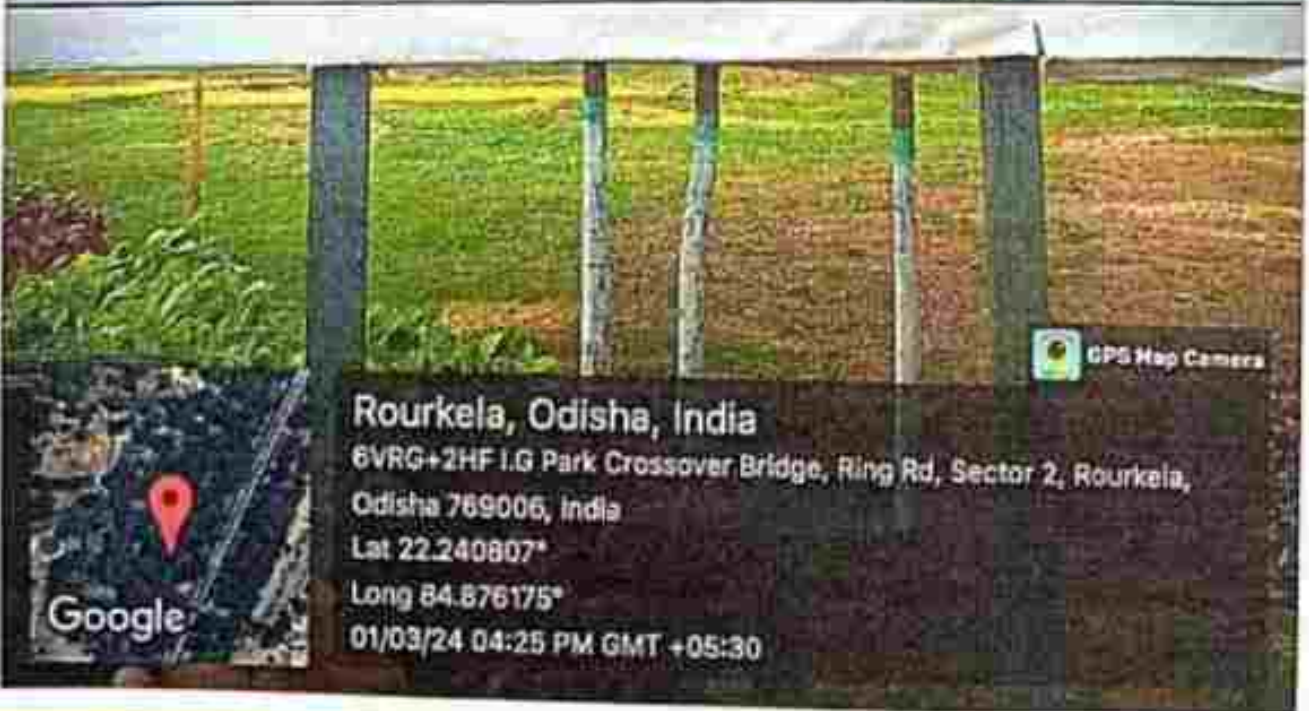
- Health Check up of employees for zoonotic diseases.
- Developmental works carried out in the zoo during the year.
- Education and awareness programmes during the year.
- Seasonal special arrangements for upkeep of animals
- Research work carried out and publications.
- Annual inventory of animals.
- Mortality of animals.
- Status of the compliance with conditions stipulated by the Central zoo authority.
- List of free living wild animals within zoo premises.





INDIRA GANDHI PARK

- Amul Fountain
- Children's Toy Train
- Seating complex
- Doll Museum
- Rose Garden
- 52 MT Monument
- Watch Tower
- Refreshment Kiosk
- Drinking Water Point
- Public Computer Centre
- Lawn & Gliders



GPS Map Camera



Google

Rourkela, Odisha, India
6VRG+2HF I.G Park Crossover Bridge, Ring Rd, Sector 2, Rourkela,
Odisha 769006, India
Lat 22.240807°
Long 84.876175°
01/03/24 04:25 PM GMT +05:30

HISTORY OF THE ZOO

A Botanical Garden was established in the early 1960's, and a few species of birds and some spotted deer were given place there. It was subsequently christened as Indira Gandhi Park Zoo. With passage of time, new species were introduced to the collection and was given recognition by Central Zoo Authority in the year 1995 as Mini Zoo and subsequently in addition of animals and other related facilities further recognized as a Small Zoo.

Indira Gandhi Park Zoo is situated in the centre of Rourkela city, the industrial capital of Odisha on the Howrah Mumbai Railway line. It owes its splendor to the natural surroundings of the Chhotanagpur hill range amidst the tranquil environs and soothing natural beauty with a small lake. Indira Gandhi Park Zoo is spread over an area of 50 acres where six varieties of mammals, thirteen varieties of birds and four varieties of reptiles are housed for conservation as well as education for the visitors.

VISION

To achieve the distinction of an outstanding zoo through conservation, education, research and spreading awareness for wildlife protection with exciting visitor experiences by connecting people to biodiversity conservation.

MISSION

Develop amongst visitors' an empathy for wild animals and motivate them to support the cause of conservation of wildlife and also to provide holistic nature conservation education with wholesome recreation.

OBJECTIVES

- a. To provide a glimpse of some of the flora and fauna of the region
- b. To maintain a natural ecosystem in the Steel Township

ABOUT INDIRA GANDHI PARK ZOO, ROURKELA

Indira Gandhi Park Zoo and Deer Park is one of the major conservation centre for wild animals in Western Odisha. The prime objective of the zoo is to spread awareness on Conservation of wild fauna among the common public. The Zoo boasts of a landscape with soft green grasses, the glossy leaves of varied bushes, the canvas of canopies of a good collection of trees, the colorful beds of seasonal and perennials, beautiful roses of more than 150 different varieties. It is a pleasure to loosen up amidst nature in the serene surroundings. Animals like the crocodile, Indian rock python, gharial, barking deer, sambar and spotted deer, four horned antelope and birds like the Indian peafowl, white ibis, varieties of pheasants, exotic birds like love birds, budgerigar, cockatiels, blue and gold macaws,

emus and ostriches are the major attractions for the visitors. A 'Zoo Aquarium' with 16 aquarium boxes houses different ornamental fishes is an additional feature enriching the zoo.

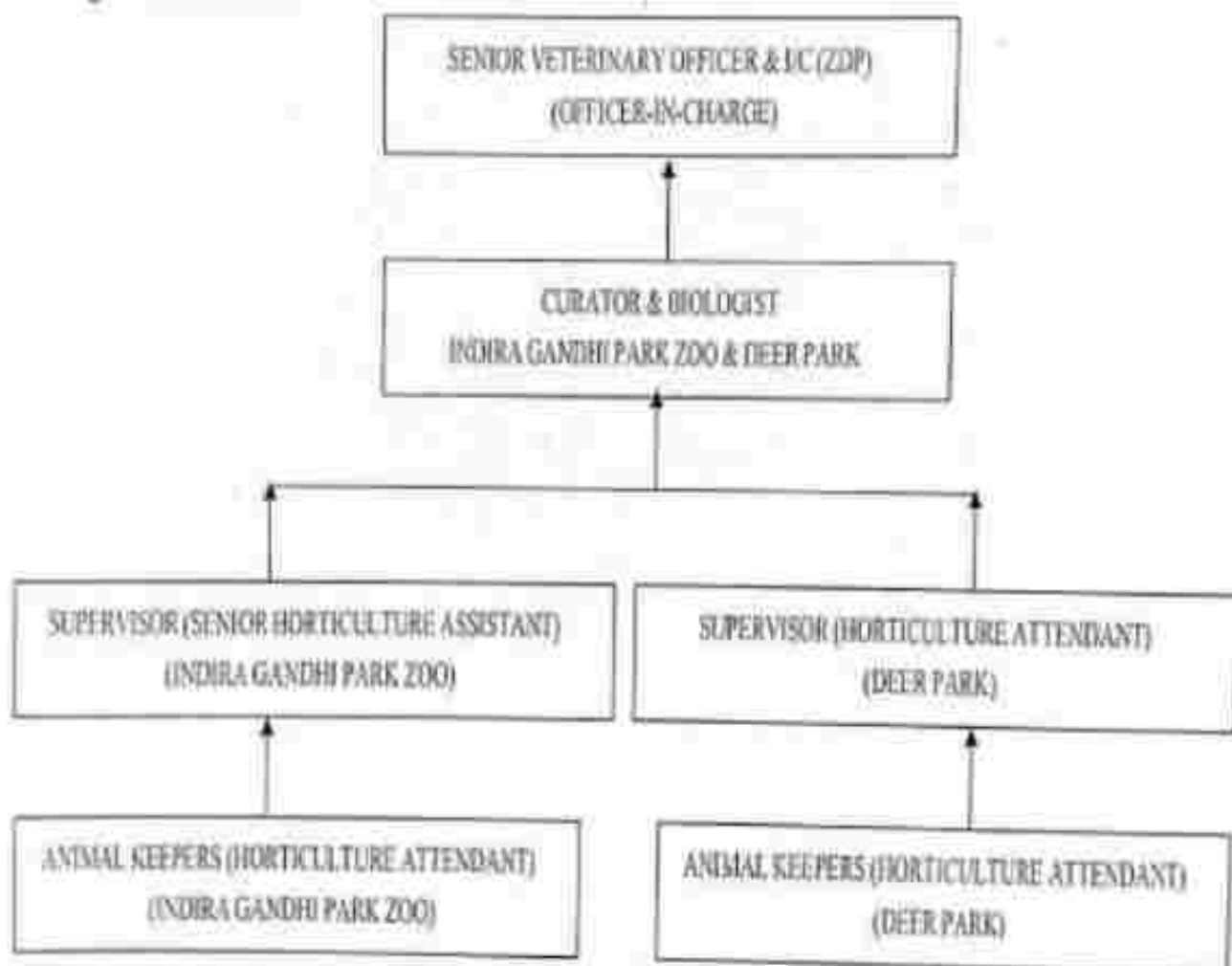
Deer Park is another unit of Indira Gandhi Park Zoo situated at Sector-8, Rourkela amidst dense vegetation and simulated habitat. The Deer Park is housed only spotted deer species for conservation and visitor awareness. The Deer Park was dedicated to the public by Sri V. Krishnamurthy on 16.02.1989, the then Chairman of Steel Authority of India Limited. Initially, the deer population was increasing more than hundred due to successful breeding among themselves.

Sl. No.	Particulars	Information
Basic Information about the Zoo		
1	Name of the Zoo	Indira Gandhi Park Zoo & Deer Park
2	Year of Establishment	16.08.1995
3	Address of the Zoo	Rourkela Steel Plant, Horticulture Department, Sector - 4 Rourkela - 769002
4	State	Odisha
5	Telephone No.	0661-2439563
6	Fax No.	+91 661 2600058
7	E-mail address	indirgandhizoo-cza@cza.nic.in avijit.biswas@sail.in

8	Distance from nearest	Airport: 7.0 KM (Rourkela Airport)
		Railway Station: 5.0 KM (Rourkela Railway Station)
		Bus Stand: 4.0 KM (Main Bus Stand)
9	Recognition Valid upto	17.10.2020 (Applied for Renewal of Recognition)
10	Category of zoo	Small Zoo
11	Area (in Hactares)	20.0
12	Number of Visitors	Adult: 4,55,410 nos.
13	Visitor facilities available in Zoo	Children: Free entry below 5 years (No data available)
		Total Indian: 4,55,410 Nos.
		Total Foreigners: (No data available)
		Total Visitors: 4,55,410 Nos.
		Aquarium, Musical Fountain, Boating in lake, Toy train, Watch Tower, Doll Museum, Childrens' Play Arena, Restaurant, Refreshment kiosks, Drinking Water Kiosks, Sit Outs and Rain Shelters, etc.
14	Weekly Closure Day of the Zoo	Monday
Management Personnel of the Zoo		
16	Name with designation of the Officer – in –Charge	Dr. Avijit Biswas, Senior Veterinary Officer & I/c (ZDP)
	Name of the Veterinary Officer	Dr. Avijit Biswas
	Name of the Curator	Dr. Satyanarayan Mishra
	Name of the Biologist	Dr. Satyanarayan Mishra
	Name of the Education Officer	None
	Name of the Compounder/ Lab Assistant	K.C. Soren (on contractual basis)
Owner/ Operator of the Zoo		

17	Name of the Operator	Chief Executive Officer, Rourkela Steel Plant
18	Address of the Operator	Office of CEO, Rourkela Steel Plant, Rourkela – 769 011, Odisha
19	Contact details/Phone Number of Operator	+91 661 2513318
20	E-mail address of Operator	ceo.rsp@sail.in

Organisational Chart



8. Human Resources

Sl. No.	Designation	Number of Posts	Names of the Incumbents
1	Officer-in-Charge	1	Dr. Avijit. Biswas
2	Veterinary Officer	1	Dr. Avijit. Biswas
3	Curator	1	Dr. Satyanarayan Mishra
4	Biologist	1	Dr. Satyanarayan Mishra
5	Compounder/Stockman	1	1
6	Supervisor	2	1
7	Animal Keeper	9	6
8	Ticket collector	2	2
9	Security Personnel	19	14
10	Gardener (Horticulture Attendant)	3	3

9. Zoo Advisory Committee

a. Date of Constitution: 01.09.2007

b. Divisional Forest Officer, Rourkela Forest Division, Rourkela

Honorary Wildlife Warden of Sundargarh District

DGM I/c, Town Services / DGM, Sports & Horticulture

Head of Civil, Town Engineering

Head of Horticulture

Veterinary Officer / Officer I/c Zoo & Deer Park (Convener)

b. Dates on which Meetings held during the year: NIL

10. Health Advisory Committee

Health Advisory Committee was not formed.

11. Statement of income and expenditure of the Zoo

YEAR	REVENUE GENERATION (Rs.)	EXPENDITURE (Rs.)
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2019-20	45,54,100.00	92,62,920.00
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12. Daily feed schedule of animals

Sl. No.	Name of the Species	Diet	Qty. in KG/Dny/ Individual		Day of fasting
			Winter	Summer	
MAMMALS					
01	Sambar	Deer Mash	3.000	3.000	NIL
		Green Grass	15.000	15.000	
			18.000	18.000	
02	Spotted Deer	Deer Mash	1.000	1.000	NIL
		Green Grass	10.000	10.000	
			11.000	11.000	
03	Barking Deer	Deer Mash	0.500	0.500	NIL
		Green Grass	10.000	10.000	
			10.500	10.500	
			10.600	10.600	
05	Rhesus monkey	Rice (boiled)	0.050	0.050	NIL
		Vegetables	0.400	0.400	
		Fruits	0.500	0.500	
		Peanut	0.050	0.050	
			1.000	1.000	
06	Common Mongoose	Rice	0.030	0.030	NIL
		Small fish	0.200	0.200	
			0.230	0.230	

BIRDS					
07	Indian peafowl	Paddy	0.075	0.075	NIL
		Bengal gram	0.020	0.020	
		Poultry feed	0.010	0.010	
		Wheat	0.025	0.025	
		Vegetables	0.100	0.100	
		Jowar	0.020	0.020	
		Bajra	0.020	0.020	
		Egg (nos.)	0.500	0.500	
			0.770	0.770	
08	Hill Mynah	Fruits	0.100	0.100	NIL
		Rice	0.030	0.030	
			0.130	0.130	
09	Rosy pelican	Small fish	1.000	1.000	NIL

10	Ostrich	Ostrich Food Mash	2.500	2.500	NIL
		Egg (1 no. each)	0.050	0.050	
			2.550	2.550	
11	Blue and Gold Macaw	Fruits	0.250	0.250	NIL
		Peanut	0.050	0.050	
		Gota Moong	0.050	0.050	
		Sun flower seed	0.050	0.050	

REPTILES					
12	Gharial	Big Fish	1.500	1.500	TUE, THU & SAT
13	Mugger	Chicken	1.500	1.500	TUE, THU & SAT
14	Indian Rock Python	Chicken	1.250	1.250	EXCEPT MONDAY

13. Vaccination & De-worming Schedule of animals

SL. NO.	NAME OF VACCINE/PROPHYLAXIS MEASURES	SPECIES	PERIODICITY
1	RANIKHET F1 STRAIN VACCINE	AVIAN	6 MONTHS
2	DEWORMING MEASURES	HERBIVORE	3 MONTHS
3	DEWORMING MEASURES	AVIAN	3 MONTHS
4	DEWORMING MEASURES	REPTILES	3 MONTHS
5	DEWORMING MEASURES	HIBERNATING REPTILES	5 MONTHS

DISINFECTION SCHEDULE:

ITEMS NO.	DESCRIPTION OF JOB	PERIODICITY
I	Cleaning & sweeping of enclosures	DAILY
II	Cleaning and scrubbing of Water pots and feeding pots	DAILY
III	Potassium Permanganate washing of floors and water/feed pots	15 DAYS
IV	Colour washing with lime colour	6 MONTHS
V	Cleaning of Water body or Dry Moat.	3 MONTHS
VI	Change of Potassium Permanganate solution in Foot Bath	DAILY
VII	Change of Lime treated sand after monsoon	6 MONTHS
VIII	Removal of floating matters and leftover feed	15 DAYS
IX	Refilling of water and cleaning of weeds	15 DAYS
X	Spraying of washing soda inside enclosure	1 MONTH
XI	Spraying of bleaching powder outside enclosure	7 DAYS
XII	Cleaning of feeding cubicles and chamber with Kohorsolin	1 MONTH
XIII	Cleaning of weeds around periphery of enclosure	1 MONTH

Health check-up of employees for zoonotic diseases

The following employees of Indira Gandhi Park Zoo & Deer Park

Sl. No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1	Dr. Avijit Biswas	Sr. Vet. Off. & I/c (ZDP)	29.01.2020	Good Health
2	Dr. S. Mishra	Curator & Biologist	29.01.2020	Good Health
3	Sri Hema Mishra	Sr. Hort. Assistant	29.01.2020	Good Health
4	Sri Gajuru Lohar	Hort. Attendant	29.01.2020	Good Health
5	Sri Kartik Nayak	Hort. Attendant	29.01.2020	Good Health

Development Works carried out in the zoo during the year

- Construction of Zoo Hospital with all facilities for treatment and healthcare of zoo inmates.
- Construction of Interpretation Centre has been started at the entrance of IG Park.
- Construction of separation of service path and visitor path for the animal enclosures
- Elevation of 400 m of the perimeter wall to a height of 2.0 m from ground level on both sides
- Repair work of chain-link mesh, MS iron structures and colour painting of iron structures of Aviary.

Education and Awareness programmes during the year

Indira Gandhi Park Zoo is one of the major places for the students to learn about wildlife conservation in the western part of Odisha. Zoo Education Programme is a regular affair of the zoo activities every year. During the year 2019-20, more than 700 students took part in the zoo education programme in different occasions.

Seasonal special arrangements for upkeep of animals

Special arrangement for the zoo animals are taken care during scorching summer and hardest winter periods. During summer, different animals were provided with extra shed to beat the heat. The zoo management ensures the potable available in all enclosures. Additionally, electrolyte powder was provided to the birds to prevent dehydration. Gunny sheets were provided to pheasants with spraying water on it is one among the daily activities during the summer period. Moreover, desert coolers were provided to different animals like, macaque, pheasants, macaws. The rest sheds were provided covered with hay to reduce direct effect of

heat during the hot summer. To monitor temperature of the enclosure area, thermometers were installed for vigil observation.

During the hardest winter of the year, reptiles and avian species are cared most to survive against the cold. Straws are being provided to Indian rock pythons to stimulate the hibernation activities. Basking area is being provided to mugger and gharial with sand bank in the enclosures. External heat sources were provided to the birds like macaws, budgerigars, love birds, cockatiels during the night time to get additional heat.

Research work carried out and publication

Students of degree college of Rourkela had undertaken research project for their curriculum at Indira Gandhi Park Zoo. The students focused on different faunal diversity in captivity as well as free ranging wildlife. During the year, 6 nos. of students of Ispat Autonomous College, Sector – 16, Rourkela had undertaken short-term research projects .

Annual Inventory of animals ENDANGERED SPECIES

S. No.	Animal Name	Scientific Name	Opening Stock as on 01.04.2019				Births				Acquisitions				Disposal				Deaths				Closing Stock as on 31.03.2020							
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T				
	Birds																													
1	Common Pea fow)	Pavo cristatus	3	1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	4
	Hill Mynah	Gracula religiosa	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Total Birds		3	1	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	4
	Mammal																													
1	Four-horned antelope	Tetracerns quadricornis	3	6	1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	6	1	10
3	Common Mongoose	Herpestis edwardsi	3	3	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	6
4	Rhesus macaque	Macaqa mulatta	2	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	3
	Total Mammals		8	10	1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	10	1	19
	Reptile																													
1	Crocodile(Mugger)	Crocodilus palustris	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2
2	Gharial	Gravialis gangeticus	1	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	3
3	Python	Python molarus	1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	3
	Total Reptiles		3	3	2	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	2	8

OTHER SPECIES

S. No.	Animal Name	Scientific Name	Opening Stock as on 01.04.2019				Births				Acquisitions				Deaths				Closing Stock as on 31.03.2020							
			M	F	U	T	M	F	U		M	F	U		M	F	U		M	F	U	T				
	Birds																									
1	White Ibis	<i>Threskiornis</i> <i>threskiornis</i>	1	-	-	1												1								
2	Parakeet	<i>Psittacula</i> sp.			27	27																			27	27
3	Cockatiel	<i>Nymphicus</i> sp.			3	3																			3	3
4	Budgerigar	<i>Melopsittacus</i> sp.			14	14																			14	14
5	Love bird	<i>Agapornis</i> sp.			6	6																			6	6
6	Ostrich	<i>Struthio camelus</i>	1	1		2																	1	1	-	2
7	Emu	<i>Dromius</i> <i>novae-hollandiae</i>	2	2	8	12																	1	1	2	6
8	Rosy Pelican	<i>Pelicanus</i> <i>onocrotalus</i>	1			1																	1	-	-	1
9	Lady Amherst's Pheasant	<i>Chrysolophus</i> <i>amherstiae</i>	1	1	-	2																	1	-	-	1
10	Golden pheasant	<i>Chrysolophus pictus</i>	1			1																	1	-	-	-
11	Blue & Gold Macaw	<i>Ara aurifrons</i>	2	1	-	3																	2	1	-	3

Total Birds		8	6	58	72							3		6	5	56	67
Mammal												2					
1	Spotted Deer	Axis axis	45	91	-	136	-	-	-	-	-	1	1	44	90	-	134
2	Barking Deer	Muntiacus muntjac	7	3	-	10	-	-	-	-	-	-	-	7	3	-	10
3	Sambar Deer	Cervus unicolor	1	3	-	4	1	-	-	-	-	-	-	2	3	-	5
	Total Mammal		53	97	0	150	1	-	-	-	-	1	1	53	96	-	149

21. Mortality of animals Engangered Species:

S. No.	Name of the Species	Scientific Name	Sex	Date of Death	Cause of Death
01.	Hill Mynah	Gracula religiosa	Female	15.06.2019	Death may be due to toxicemic shock as a result of egg-bound condition.
Other Species:					
S. No.	Name of the Species	Scientific Name	Sex	Date of Death	Cause of Death
01.	Spotted Deer	Axis axis	Male	04.04.2019	Death may be due to old age complications.
02.	White Bho	Threskiornis threskiornis	Male	12.07.2019	Death may be due to old age complications

03.	Emu	Dromaius novaeollandiae	Male	06.08.2019	Death may be due to obstruction in proventriculus
04.	Emu	Dromaius novaeollandiae	Female	08.08.2019	Death may be due to dehydration caused by diarrhoea
05.	Spotted Deer	Axis axis	Female	01.12.2019	Death due to old age complications
06.	Lady Amherst's Pheasant	Chrysolophus amherstiae	Male	16.01.2020	Death may be due to liver abscess
07.	Golden Pheasant	Chrysolophus pictus	Female	06.02.2020	Death may be due to egg bound condition.

• Compliances with conditions stipulated by Central Zoo Authority

SL. NO.	NORM UNDER RZR, 2009	Conditions Stipulated	Status with regard to compliance of the conditions
1	10.1 (3)	The visitors' path and service path are overlapping at many places which need to be done appropriately aligned. The same should be proposed accordingly in proposed the Master (Layout) Plan/ Master Plan.	Separation of Visitors path and Service path has been completed by December 2019 except Aviary. The aviary shall be modified as per the suggestion put forth by evaluating officer.

2	10.2(1)	The Zoo Operator has not posted whole time officer in-charge of the Zoo. Veterinarian of the zoo and Officer in-charge of the zoo are one and the same.	Whole time Officer-In-Charge of the zoo and Senior Veterinary Officer are same.
3	10.2(2)	The Zoo Operator has not posted scientific and technical staff as mandatory for a 'Small Zoo'. A Biologist should also be appointed.	Contract for posting of scientific and technical staff has been finalized and work started from Jan, 2020.
4	10.3(3) & 10.5(6)	i. The purpose of operating zoo in two units at a distance from each other in the Rourkela Township is not justifiable for proper management of the animal. It is viable to operate the zoo at one single unit. ii. Theme of display and viable sex ratio of animals shall be maintained immediately.	Letter for transfer of spotted deer of Deer Park, Sector-8 has been communicated to Forest Department, Govt. of Odisha on 14.03.2008. However a fresh communication regarding release of surplus nos. spotted deer to DFO, Rourkela Forest Department, Govt. of Odisha has been done on 30.11.2019.
5	10.3(7) & 10.5(8)	The Zoo should not accept the rescued animal disproportionate to the availability of infrastructure and also submit a detail report on such animals acquired in the past.	Presently the rescued animals have been housed in suitable enclosures. List of rescued animals acquired in the past has been communicated to PCCF (WL) & CWLW for necessary action (copy attached as Annexure-1).
6	10.4(1)	The zoo as per proposed master (layout) plan shall modify its existing enclosure in nature immersing enclosures. The moat should be preferred as front barrier towards visitor	Modification of the enclosures as per the suggestion of the Scientific Officer, CZA which shall be taken up in FY 2020-21.
		viewing side in place of chain link fence.	

7	10.3(2)	All the animal enclosures in the zoo are not in accordance with the specification of the CZA. The enclosure should be re-modified and appropriately designed, following the guidelines and norms of the CZA in this regard.	The enclosures shall be re-modified after approval of Master (Layout) Plan and designs from CZA. We have already submitted Master (Layout) Plan to CZA for approval.
8	10.3(3)	The enclosures of the birds are very dingy and do not provide appropriate space for birds, keeper and visitors. This needs immediate attention.	Modification of bird enclosures shall be taken up after approval of Master (Layout) Plan and sanction of budget.
9	10.5(5)	A schedule for disinfection of enclosures should be prepared and implemented in the zoo.	Schedule for disinfection of enclosures has been already in vogue and submitted (copy attached as Annexure-II).
10	10.6(1)	The zoo shall submit a report on completion of ongoing work of Veterinary Infrastructure and its use with documentary proof.	The veterinary infrastructure including veterinary hospital has been completed. Photos of the new IG Park Zoo hospital is attached at Annexure-III).
11	10.6(5)	The Veterinary support staff should be deployed as per prescribed norms.	Posting veterinary support staff on contractual basis has started from Jan, 2020.
12	10.9(4)	The single sex animals like Rosy pelican and Golden pheasant should be paired.	Proposal for pairing has already been communicated to Nandankanan Zoological Park on 31.01.2019. After obtaining approval the job shall be taken up on priority basis.

13	10.9(9)	<p>The population control measures should be adopted to bring the population of the deer species with carrying capacity or surplus population may be shifted to nearby zoo or released back to its natural habitat.</p>	<p>Population control measure for spotted deer in deer park has already been taken up by separating the male and female deer. Letter for transfer of spotted deer of Deer Park, Sector-8 has been communicated to Forest Department, Govt. of Odisha on 14.03.2008. However a fresh communication regarding release of surplus nos. spotted deer to DFO, Rourkela Forest Department, Govt. of Odisha has been done on</p>
14	10.12(3)	<p>The visitors' path and amenities like toilet should be provided with access to 'Divyang' personnel and wheel chair should be made available.</p>	<p>Wheel Chair has already been provided at the main gate and ramp has been provided in toilets and visitors paths at desired locations for access of 'Divyang' personnel.</p>

SOME FREE RANGING WILDLIFE AT INDIRA GANDHI PARK ZOO & DEER PARK

BIRDS

Sl. No.	Common Name	Scientific Name	Status
Family:PHALACROCORACIDAE			
1	Little Cormorant	Phalacrocorax niger	VC
2	Darter or Snake-bird	Anhinga rufa melanogaster	VR
3	Pond Heron	Ardeola grayii	C
4	Cattle Egret	Bobulcus ibis coromandus	VC
5	Smaller or Median Egret	Egretta intermedia	R
6	Little Egret	Egretta garzetta	VC
7	Night Heron	Nycticorax nycticorax	C
8	Openbill Stork	Anastomus oscitans	R
Family:ANATIDAE			
9	Lesser Whistling Teal or Tree Duck	Dendrocygna javanica	R
Family: ACCIPITRIDAE			
10	Pariah Kite	Milvus migrans govinda	C
11	Shikra	Accipiter badius	C
Family: PHASIANIDAE			
12	Red Jungle fowl	Gallus gallus	R
Family:RALLIDAE			
13	White breasted Waterhen	Amaurornis phoeniceus	C
Family:JACANIDAE			
14	Bronze winged Jacana	Metopidius indicus	C
Family:COLUMBIDAE			
15	Indian Blue Rock Pigeon	Columba livia	VC
16	Indian Spotted Dove	Streptopelia chinensis	VC
Family:PSITTACIDAE			
17	Rose-ringed Parakeet	Psittacula krameri	VC
Family:CUCULIDAE			
18	Indian Koel	Endynamys scolopacea	VC

19	Common Crow-Pheasant / Coucal	<i>Centropus sinensis</i>	VC
Family:STRIGIDAE			
20	Eastern Spotted Scops Owl	<i>Otus spilocephalus</i>	C
21	Barn Owl	<i>Tyto alba</i>	R
Family:CAPRIMULGIDAE			

22	Indian Jungle Nightjar	<i>Caprimulgus indicus</i>	C
Family:ALCEDINIDAE			
23	Lesser Pied Kingfisher	<i>Ceryle rudis</i>	R
24	Indian Small Blue Kingfisher	<i>Alcedo sthis</i>	C
25	White breasted Kingfisher	<i>Halcyon smytnensis</i>	VC
Family:MEROPIIDAE			
26	Indian Small Green Bee-eater	<i>Meropos orientalis</i>	VC
Family:CORACIIDAE			
27	Indian Roller or Blue Jay	<i>Coracias benghalensis</i>	C
Family:MEGALAIMIDAE			
28	Small Green Barbet	<i>Megalaima viridis</i>	C
Family:PICIDAE			
29	Mahratta Woodpecker	<i>Picoides mahrattensis</i>	R
30	Golden backed Woodpecker	<i>Chrysocolaptes indicus</i>	
Family:ORIOIIDAE			
31	Indian Golden Oriole	<i>Oriolus oriolus</i>	C
32	Indian Black headed Oriole	<i>Oriolus xanthornus</i>	VC
Family:DICRURIDAE			
33	Indian Black Drongo	<i>Dicrurus macrocercus</i>	VC
Family:STURNIDAE			
34	Blackheaded or Brahminy Myna	<i>Sturnus pagodarum</i>	R
35	Indian Pied Myna	<i>Sturnus cottra</i>	C
36	Indian Myna	<i>Acridotheres tristis</i>	VC
Family:CORVIDAE			
37	Northeastern Tree Pie	<i>Dendrocitta vagabunda</i>	C

38	Indian House Crow	<i>Corvus splendens</i>	VC
39	Indian Jungle Crow	<i>Corvus macrorhynchos</i>	VC
Family: CAMPEPHAGIDAE			
40	Large Cuckoo-shrike	<i>Coracina novaehollandiae</i>	R
Family: PYCNONOTIDAE			
41	Red whiskered Bulbul	<i>Pycnonotus jocosus</i>	C
42	Red vented Bulbul	<i>Pycnonotus cafer</i>	C
Family: MUSCICAPIDAE			
43	Striated Babbler	<i>Turdoides subrufus</i>	R
44	Jungle Babbler	<i>Turdoides striatus</i>	C
45	Indian Tailor Bird	<i>Orthotomus sutorius</i>	R
46	Yellow Browed Leaf Warbler	<i>Phylloscopus inornatus</i>	R
47	Indian Magpie Robin	<i>Copsychus saularis</i>	
Family: MOTACILLIDAE			
48	Indian White Wagtail	<i>Motacilla alba</i>	R
49	Forest Wagtail	<i>Motacilla indica</i>	R
Family: NECTARINIIDAE			
50	Indian Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	C
51	Indian Purple Sunbird	<i>Nectarinia asiatica</i>	C
Family: ZOSTEROPIDAE			
52	Indian White-eye	<i>Zosterops palpebrosa</i>	R
Family: PLOCEIDAE			
53	Indian Baya	<i>Ploceus philippinus</i>	C

MAMMALS

Sl No.	Common Name	Scientific Name	Status
1	Common mongoose	<i>Herpestes edwardsii</i>	VC
2	Jungle Cat	<i>Felis chaus</i>	R
3	Common fruit bat	<i>Pteropus giganteus</i>	VC

REPTILES

Sl No.	Common Name	Scientific Name	Status
1	Land Monitor lizard	<i>Varanus bengalensis</i>	C
2	Indian Python	<i>Python molurus</i>	R
3	Russels Viper	<i>Daboia russelli</i>	R
4	Banded krait	<i>Bungarus fasciatus</i>	R
5	Common Indian Krait	<i>Bungarus caeruleus</i>	R
6	Binocellate Cobra	<i>Naja naja</i>	R
7	Monocellate Cobra	<i>Naja kaouthia</i>	R
8	Rat Snake	<i>Ptyas mucosus</i>	C
9	Common Indian Bronze back	<i>Dendrolaphis tristis</i>	R
10	Checkered keel back	<i>Xenochrophis piscator</i>	C
11	Chameleon	<i>Chameleon zeylanicus</i>	R
12	Common Green Whip Snake	<i>Ahaetulla nasuta</i>	R
13	Earth Boa	<i>Eryx johnii</i>	C
14	Garden lizard	<i>Calotes verticolor</i>	VC
15	Blind snake	<i>Typhlops gramineus</i>	C

FISHES

Sl. No.	Scientific name	Local name/English name
1.	<i>Labeo rohita</i>	Rohi
2.	<i>Labeo calbasu</i>	Kalahaini
3.	<i>Catla catla</i>	Bhakara
4.	<i>Cirrhinus mrigala</i>	Mirikali
5.	<i>Labeo gonius</i>	Khursia
6.	<i>Labeo bata</i>	Rajapobala
7.	<i>Puntius sarana</i>	Sarena
8.	<i>Puntius ticto</i>	Kerandi

9.	<i>Puntius sophore</i>	Chepta kerandi
10.	<i>Puntius chola</i>	Pita kerandi
11.	<i>Cirrhinus reba</i>	Chhunchha pohala
12.	<i>Wallago attu</i>	Balia
13.	<i>Channa striatus</i>	Seula
14.	<i>Channa marulius</i>	Sala
15.	<i>Channa punctata</i>	Godra
16.	<i>Channa gachhua</i>	Chenga
17.	<i>Notopterus chitala</i>	Chitala
18.	<i>Notopterus notopterus</i>	Fail
19.	<i>Charius batractus</i>	Magura
20.	<i>Heteropneustes fossilis</i>	Singhi, Rata
21.	<i>Azabus testudineus</i>	Kau
22.	<i>Mystus vittatus</i>	Kantia
23.	<i>Ompok pabda</i>	Pobata. Poba
24.	<i>Glossogobius biocellatus</i>	Neuli
25.	<i>Glossogobius giuris giuris</i>	Baligarada
26.	<i>Mastacembelus armatus</i>	Bommy
27.	<i>Mastacembelus pancalus</i>	Todi
28.	<i>Cyprinus carpio</i>	Bilatirohi
29.	<i>Ctenopharyngodon indella</i>	Graucrap
30.	<i>Anguilla bengalensis</i>	Lamba bommy
31.	<i>Xenostodon cancella</i>	Dolithantia gania
32.	<i>Osteobrama cotis</i>	Chandi
33.	<i>Nandus nandus</i>	Vutasi/Olia
34.	<i>Chela labuca</i>	Khankarachai
35.	<i>Gadusia chupra</i>	Makandi
36.	<i>Ailia coila</i>	Hansa patri
37.	<i>Amblypharyngodon mela</i>	Mahundi

38.	<i>Oxygaster bacula</i>	Jarudi
39.	<i>Esomus danricus</i>	Dandikiel
40.	<i>Chanda nama</i>	Guachippi
41.	<i>Aplochelilus panchax</i>	Chariakhia
42.	<i>Rasbora daniconius</i>	Black-line Rasbora
43.	<i>Colisa fasciatus</i>	Giant Gourami
44.	<i>Lepidocephalus irrota</i>	Lokak loach
45.	<i>Pseudambassis rama</i>	Indian Glassy fish
46.	<i>Tetraodon lineatus</i>	Ocellated Pufferfish
Prawns		
1.	<i>Macrobrachium malcolmsonii</i>	Nai chingudi
2.	<i>Macrobrachium rube</i>	Nai chingudi

BUTTERFLIES

Sl. No.	ENGLISH NAME	SCIENTIFIC NAME	STATUS
FAMILY PAPILIONIDAE			
1	COMMON ROSE	<i>Pachliopta aristolochiae</i>	C
2	CRIMSON ROSE	<i>Pachliopta hector</i>	C
3	COMMON JAY	<i>Graphium doson</i>	R
4	TAILED JAY	<i>Graphium agamemnon</i>	O
5	COMMON MIME	<i>Papilio clytia</i>	R
6	LIME	<i>Papilio demoleus</i>	VC
7	COMMON MORMON	<i>Papilio polytes</i>	VC
8	SPOT SWORDTAIL	<i>Graphium noman</i>	O
9	COMMON BANDED PEACOCK	<i>Papilio erion</i>	O
10	BLUE MORMON	<i>Papilio polymnestor</i>	O
FAMILY PIERIDAE			
11	COMMON EMIGRANT	<i>Catopsilia pomona</i>	VC
12	MOTTLED EMIGRANT	<i>Catopsilia pyranthe</i>	C
13	SMALL GRASS YELLOW	<i>Eurema brigitta</i>	R

14	COMMON GRASS YELLOW	<i>Eurena hecabe</i>	VC
15	SPOTLESS GRASS YELLOW	<i>Eurena iseta</i>	C
16	COMMON JEZEBEL	<i>Delias eucharis</i>	O
17	PSYCHE	<i>Leptosia nina</i>	VC
18	PIONEER	<i>Belenois mesentina</i>	C
19	COMMON GULL	<i>Cepora nerissa</i>	VC
20	COMMON ALBATROSS	<i>Appias albina</i>	O
21	STRIPED ALBATROSS	<i>Appias libytha</i>	C
22	WHITE ORANGE TIP	<i>Ixias marianne</i>	C
23	YELLOW ORANGE TIP	<i>Ixias pyrene</i>	C
24	SMALL SALMON ARAB	<i>Colotis amata</i>	I
25	SMALL ORANGE TIP	<i>Colotis etrida</i>	I
26	COMMON WANDERER	<i>Pateronia valeria</i>	C
	FAMILY NYMPHALIDAE		
27	COMMON EVENING BROWN	<i>Melanitis leda</i>	O
28	COMMON PALMFLY	<i>Elymnias hypermentra</i>	O
29	COMMON BUSHBROWN	<i>Mycalena pectus</i>	O
30	DARK BRANDED BUSHBROWN	<i>Mycalena mixta</i>	R
31	NIGGER	<i>Orvotiama medus</i>	O
32	COMMON FOURRING	<i>Ypthima huebneri</i>	O
33	COMMON NAWAB	<i>Polysara aethans</i>	R
34	TAWNY COSTER	<i>Acraea violae</i>	VC

35	COMMON LEOPARD	<i>Phalanta phalantha</i>	C
36	COMMON SAILER	<i>Neptis hylas</i>	VC

37	COMMON SERGEANT	<i>Athyma perix</i>	R
38	COMMANDER	<i>Limenitis procris</i>	O
39	COMMON BARON	<i>Euthalia scouthae</i>	O
40	ANGLED CASTOR	<i>Ariadne ariadne</i>	O
41	YELLOW PANSY	<i>Junonia hierta</i>	VC
42	BLUE PANSY	<i>Junonia orithya</i>	O
43	LEMON PANSY	<i>Junonia lemonias</i>	VC
44	PEACOCK PANSY	<i>Junonia almana</i>	O
45	GREY PANSY	<i>Junonia atlites</i>	O
46	CHOCOLATE PANSY	<i>Junonia iphita</i>	VC
47	GREAT EGGFLY	<i>Hypolimnas bolina</i>	C
48	DANAID EGGFLY	<i>Hypolimnas misippus</i>	O
49	GLASSY TIGER	<i>Parantica aglea</i>	O
50	BLUE TIGER	<i>Tirumala limniace</i>	R
51	PLAIN TIGER	<i>Danaus chrysippus</i>	C
52	STRIPED TIGER	<i>Danaus genutis</i>	C
53	COMMON INDIAN CROW	<i>Euploea core</i>	VC
	FAMILY LYCAENIDAE		
54	COMMON PIERROT	<i>Castalius rosimon</i>	VC
55	STRIPED PIERROT	<i>Tarucus nara</i>	O
56	ZEBRA BLUE	<i>Leptotes plinius</i>	O
57	QUAKER	<i>Neopithecops zalmoxis</i>	O
58	PALE GRASS BLUE	<i>Pseudoxizocera maha</i>	O
59	LESSER GRASS BLUE	<i>Zizina otia</i>	O
60	LIME BLUE	<i>Chilodes lina</i>	O
61	GRAM BLUE	<i>Euchrysops cnejus</i>	O
62	PEA BLUE	<i>Lampides boeticus</i>	O
63	TINY BLUE	<i>Zizina hylax</i>	C
64	COMMON CERULEAN	<i>Jamides celeus</i>	C
65	LINE BLUE SP.	<i>Nacaliba sp.</i>	O

66	LEAF BLUE	<i>Amblypodia anita</i>	C
67	COMMON SILVERLINE	<i>Spindasis volcanus</i>	VC
68	CLUB SILVERLINE	<i>Spindasis ayama</i>	C
69	SLATE FLASH	<i>Rapala manea</i>	C
70	SUNBEAM	<i>Caretis thetis</i>	C
	FAMILY HESPERIIDAE		
71	INDIAN SKIPPER	<i>Spialia galba</i>	O
72	COMMON SMALL FLAT	<i>Sarangesa dasahura</i>	O
73	BUSH HOPPER	<i>Ampittia dioscorides</i>	C
74	GOLDEN ANGLE	<i>Caprona ransonnetti</i>	I
75	INDIAN/CEYLON ACE	<i>Halpe hetmotea</i>	O
76	CHESTNUT BOB	<i>Iambrix salsala</i>	O
77	RESTRICTED DEMON	<i>Notocrypta curvifascia</i>	R
78	GRASS DEMON	<i>Ulanpex folus</i>	R
79	INDIAN PALM BOB	<i>Scaevola gremius</i>	R
80	TREE FLITTER	<i>Hyarostis adrastus</i>	C
81	COMMON REDEYE	<i>Matapa aria</i>	C
82	GIANT REDEYE	<i>Gattara thyris</i>	R
83	COMMON GRASS DART	<i>Taractrocera maevius</i>	O
84	RICE SWIFT	<i>Borbo cinara</i>	O
85	SMALL BRANDED SWIFT	<i>Pelopidas mathias</i>	C
	STATUS		
	VC=Very common		
	C=Common		
	O=Occasional		
	R=Rare		
	I=Indeterminate		

DRAGONFLIES & DAMSEL FLIES

SUBORDER: ANISOPTERA		
FAMILY: AESCHNIDAE		
1	Blue Darter	<i>Anax immaculifrons</i> Rambur, 1842
2	Blue-tailed Green Darter	<i>Anax guttatus</i> Leach, 1815
3	Parakeet Darter	<i>Gynacantha bayadera</i> Selys, 1891
FAMILY: GOMPHIDAE		
4	Common Clubtail	<i>Ictinogomphus rapax</i> (Rambur, 1842)
5	Deccan Bowtail	<i>Macrogomphus annulatus</i> (Selys, 1854)
6	Common Hooktail	<i>Paragomphus lineatus</i> (Selys, 1850)
FAMILY: LIBELLULIDAE		
7	Trumpet-tail	<i>Acinoma panorpoides</i> Rambur, 1842
8	Scarlet Marsh Hawk	<i>Aethriamanta brevipennis</i> (Rambur, 1842)
9	Little Blue Marsh Hawk	<i>Brachydiplax sordina</i> (Rambur, 1842)
10	Ditch Jewel	<i>Brachythemis contaminata</i> (Fabricius, 1793)
11	Granite Ghost	<i>Bradynopyga geminata</i> (Rambur, 1842)
12	Emerald-banded Skimmer	<i>Cratilla lineata</i> Foerster, 1903
13	Roddy Marsh Skimmer	<i>Crocothermis servilis</i> (Drury, 1770)
14	Black-tipped Ground Skimmer	<i>Diplacodes nebulosa</i> (Fabricius, 1793)
15	Ground Skimmer	<i>Diplacodes trivialis</i> (Rambur, 1842)
16	Restless Demon	<i>Indothemis limbata</i> (Selys, 1891)
17	Asiatic Bloodtail	<i>Lathrocista asiatica</i> (Fabricius, 1798)
18	Fulvous Forest Skimmer	<i>Neurothemis fulvia</i> (Drury, 1773)
19	Roddy Meadow Skimmer	<i>Neurothemis intermedia</i> (Rambur, 1842)
20	Pied Paddy Skimmer	<i>Neurothemis tullia</i> (Drury, 1773)
21	Blue Marsh Hawk	<i>Orthetrum glaucum</i> (Brauer, 1865)
22	Tri-colored Marsh Hawk	<i>Orthetrum luzonicum</i> (Brauer, 1868)
23	Green Marsh Hawk	<i>Orthetrum sabina</i> (Drury, 1770)
24	Crimson-tailed Marsh Hawk	<i>Orthetrum pumilum</i>
25	Blue-tailed Yellow Skimmer	<i>Palpoplexa sexmaculata</i> (Fabricius, 1787)

26	Wandering Glider	<i>Pantala flavescens</i> (Fabricius, 1798)
27	Yellow-tailed Ailly Skimmer	<i>Pomaraea congener</i> (Rambur, 1842)
28	Rufous Marsh Glider	<i>Rhodothemis rufa</i> (Rambur, 1842)
29	Common Picturewing	<i>Rhyothemis variegata</i> (Linnaeus, 1763)
30	Coral-tailed Cloudwing	<i>Tholymis tillarga</i> (Fabricius, 1798)
31	Red Marsh Trotter	<i>Tramea basilaris</i> (Palisot de Beauvois, 1805)
32	Black Marsh Trotter	<i>Tramea limbata</i> (Dejean, 1822)
33	Crimson Marsh Glider	<i>Trihemis aurora</i> (Burmeister, 1839)
34	Long-legged Marsh Glider	<i>Trihemis pallidimervis</i> (Kirby, 1859)
35	Greater Crimson Glider	<i>Urothemis signata</i> (Rambur, 1842)
36	Brown Dusk Hawk	<i>Zygomma petiolatum</i> Rambur, 1842
FAMILY: MACROMIIDAE		
37	Common Torrent Hawk	<i>Epophthalma vittata</i> Burmeister, 1839
SUBORDER: ZYGOPTERA		
FAMILY: COENAGRIONIDAE		
38	Darlet	<i>Aciagrion occidentale</i> Laidlaw, 1919
39	Golden darlet	<i>Aciagrion pallidum</i> Selys, 1891
40	Darlet species	<i>Agriocnemis fenina</i> (Brauer, 1868)
41	Pygmy Darlet	<i>Agriocnemis pygmaea</i> (Rambur, 1842)
42	Darlet species	<i>Agriocnemis</i> sp. nov.
43	Orange-tailed Marsh Dart	<i>Ceriagrion currorubellum</i> (Brauer, 1865)
44	Coromandel Marsh Dart	<i>Ceriagrion coromandelianum</i> (Fabricius, 1798)
45	Golden Darlet	<i>Ischnura aurora</i> (Brauer, 1865)
46	Senegal Golden Darlet	<i>Ischnura senegalensis</i> (Rambur, 1842)
47	Black Marsh Dart	<i>Orychargia atrocyana</i> (Selys, 1865)
48	Pale Blue Marsh Dart	<i>Pseudagrion doorum</i> (Rambur, 1842)
49	Blue Marsh Dart	<i>Pseudagrion microcephalum</i> (Rambur, 1842)
50	Saffron-faced Blue Dart	<i>Pseudagrion rubriceps</i> Selys, 1876

FAMILY: LESTIDAE		
51	Brown Spreadwing	<i>Lestes umbrinus</i> Selys, 1891
52	Emerald-striped Spreadwing	<i>Lestes viridulus</i> Rambur, 1842
FAMILY: PLATYCNEMIDIDAE		
53	Pied Bush Dart	<i>Copera ciliata</i> (Selys, 1863)
54	Yellow Bush Dart	<i>Copera vittata</i> Selys, 1863
55	Blue Bush Dart	<i>Copera marginipes</i> (Rambur, 1842)

ROSY PELICAN



Rourkela, Odisha, India
 7 stpl, Sector 5, Rourkela, Odisha 769002, India
 Lat 22.242599°
 Long 84.877382°
 01/03/24 02:52 PM GMT +05:30



Rourkela, Odisha, India
 7 stpl, Sector 5, Rourkela, Odisha 769002, India
 Lat 22.24259°
 Long 84.877382°
 01/03/24 02:52 PM GMT +05:30

ROSY PELICAN (GOSAVI MUI)

Scientific Name:
 Pelecanus roseus

Distribution:
 India, Sri Lanka, Bangladesh, Myanmar, Cambodia, Laos, Thailand, Vietnam, Philippines, Malaysia, Singapore, Brunei, Indonesia, East Timor, and Papua New Guinea.

Habitat: Shallow water, wetlands, mangroves, and coastal areas.

Life span: 12-15 years.

Conservation status: Vulnerable.

Interesting facts:
 It breeds in shallow water. The male pelican feeds the female and her young. It has a long neck and a large beak. It is a migratory bird and has a long life.

Rourkela, Odisha, India
 7 stpl, Sector 5, Rourkela, Odisha 769002, India
 Lat 22.242599°
 Long 84.872688°
 01/03/24 03:17 PM GMT +05:30



ROSY PELICAN

Scientific name :Pelicanus onocrotalus

Distribution :Found year-around in Africa, South of the Sahara desert. Migratory populations are found Eastern Europe to Kazakhstan during the breeding season.

Interesting facts : In breeding condition the male has pinkish skin on his face and orangery skin.

Males are larger than the females and have a long beak.

Habitat:Shallow,warm water of lakes ,deltas, marshes and swamps, heels, lagoons and tidal creeds.

Life span : 12 to 14 years

SIZE

Weight	9 to 15kg
Total length	1.6 to 1.8m
Wingspan	6.7 to 11.8ft

BLUE AND GOLD MACAW





BLUE AND GOLD MACAW

Scientific name : *Ara ararauna*

Distribution : This species occurs in Venezuela and south to Peru Brazil Bolivia and Paraguay.

Interesting facts : The blue and yellow macaw uses it's powerful beak for breaking nutshells and also for climbing up and hanging from trees.

Feeding habitat : Macaws primarily get nuts, seeds and fruits.

Feeding captivity : Fruits, peanuts, soaked moving, sunflower seeds, walnut, cuttlefish bones etc.

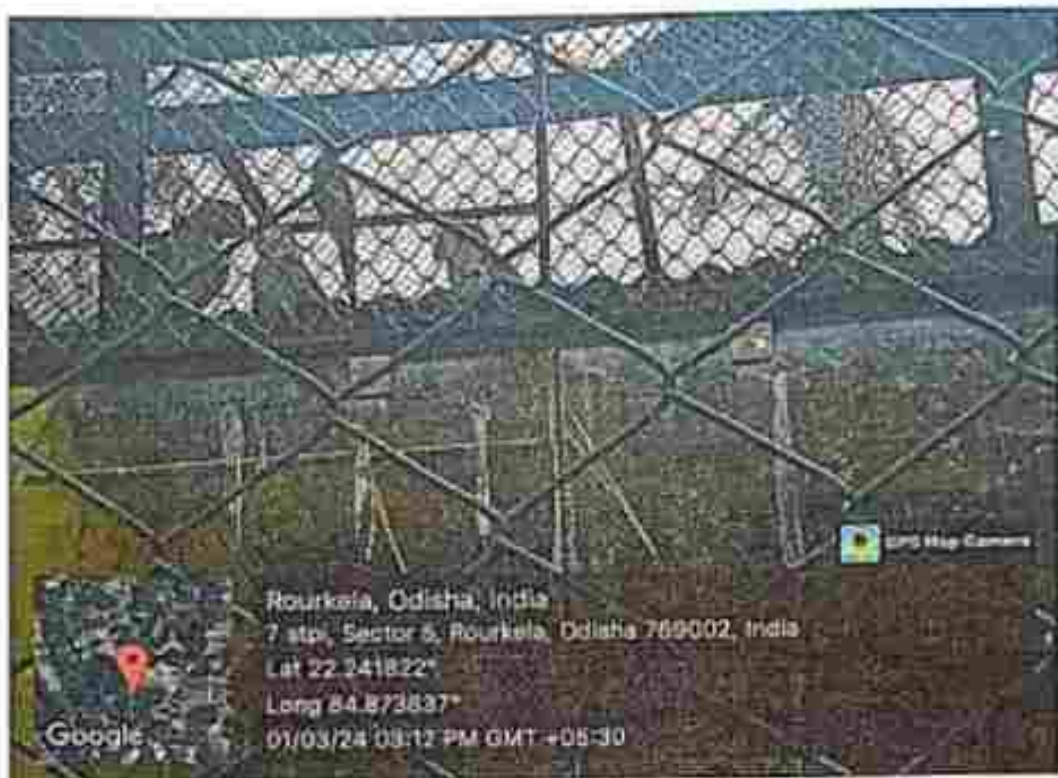
Habitat : It lives in wooded areas usually near water including edge of lowland humid forests.

Life span : 30 to 35years

Conservation status: least concern

Size	
Weight	900 to 1700gm
Length	102-112.5cm

PARROT



PARROT

Scientific name : Psittacula krameri

Distribution : This species occurs in Venezuela and south to Peru Brazil Bolivia and Paraguay.

Interesting facts : Also known as Indian Ring-necked parakeets, these beautiful small parrots grows upto 40cm long, which includes their tail feathers. Only the males have the red or black ring around the neck that gives them their name. The rose ringed parakeet performs direct and fast flight than the other parakeets. Curved beak and clawed feet.

Habitat : Rain forests, grasslands, Savannahs and islands.

Life span : 20years

Conservation status least concern

Size	
Weight	60g-32g
Wingspan	6-100cm

PEACOCK



INDIAN PEAFOWL (शहनाह)



Scientific Name - *Pavo cristatus*
 Sanskrit Name - शहनाह
 Sanskrit Name - शहनाह
 Interesting facts - [unclear]
 Habitat - Found in wooded areas, also found in variety of forests and crop fields, villages, towns, etc.
 Life span - 15 to 20 years
 Conservation status - Sched

Rourkela, Odisha, India
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INDIAN PEAFOWL

Diet	Qty. in KG/Day/individual
PADDY	0.075
BENGAL GRAM	0.020
POULTRY FEED	0.010
WHEAT	0.025
VEGETABLES	0.100
JOWAR	0.020
BAJRA	0.020
EGG (nos.)	0.500

Rourkela, Odisha, India
 A, near Kalia Police Station, Sector 4, Rourkela, Odisha 769008, India
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INDIAN PEAFOWL

Scientific name : *Pavo cristatus*

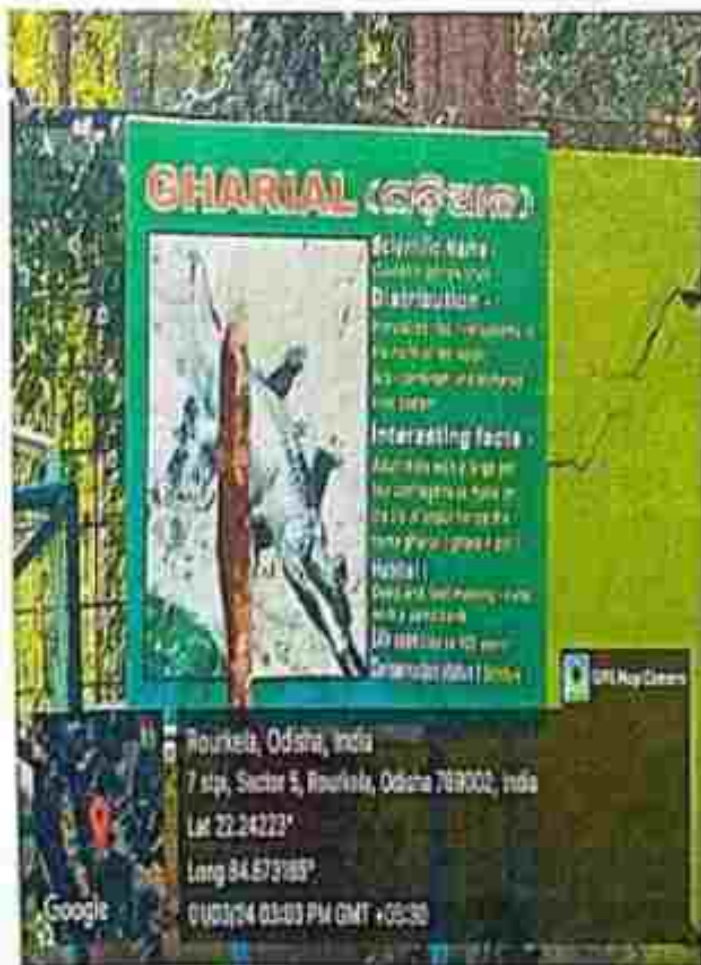
Distribution : Throughout India, Bangladesh and Sri Lanka .

Interesting facts : The Indian peafowl is a brightly colored bird that lives mainly on the ground. Its loud calls make it easy to detect, and in forest areas often indicates the presence of a predator. It is the national bird of India. Having blue fan like crest of spatula-tipped wire -like feathers, and is best known for long train(tail)made up of elongated upper tail covert feathers which bear colourful eye spots.

Habitat : Found in deciduous forests ,also found in variety of forests and crop fields, villagers, towns etc.

Life span : 20-30years

GHARIYAL





GHARIAL

Scientific name : Gavialis gangeticus

Distribution : Himalayan fed river systems in the north of the Indian subcontinent and Mahanadi river system .

Interesting facts : Adult males with a large pot like cartilaginous mass on the tip of snout hence the name gharial.

Habitat : Deep and fast moving rivers with a sand

Life span : 12 to 14 years

SEXES

	Male	Female
Weight	150-250kg	150-250kg
Length	3-6m	2.5-4meter

GHARIAL

RHESUS MONKEY



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 Long 84.8763°
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Rourkela, Odisha, India
 RWV64974, 54.312°E, Rourkela, Odisha 769006, India
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Rourkela, Odisha, India
 2, near Bante Police Station, Bante A, Rourkela, Odisha 769006, India
 Lat 22.5427°
 Long 84.8763°
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RHESUS MACAQUE

Scientific name : Macaqs mulatta

Distribution : Northern India, Bangladesh, Pakistan, Burma, Thailand ,Afghanistan, China and neighbouring areas.

Interesting facts : Rhesus monkey has cheek pouches to store food for short periods of time, like other macaques. Rhesus monkey is the first primate to be sent into the outer space in a space ship. The 'Rh-factor ',one of the elements in the persons blood group, was discovered with the blood of this monkey by Karl Landsteiner and Alexander Wiener.

Habitat : Arid and open areas , forests, grasslands, woodlands, mountain upto 2500m altitude near human habitation.

Life span : 15 to 20years

Conservation status: Schedule 2

Rhesus monkey

CROCODILE



MARSH CROCODILE

Scientific name : Crocodylus palustris

Distribution : India, Sri Lanka ,Nepal and Myanmar

Interesting facts : Tows are webbed it basks under sun with mouth open to regulate the body temperature.

Habitat : Fresh water habitats like riversystems, ponds, reservoirs and lakes etc

Life span : upto 70years

Classification status: Schedule I

Length	
Weight	4-5meters
Height	450kg

SLOTH BEAR



Rourkela, Odisha, India
B.V.V.O. (Bihar Veterinary and Zoology Department), Sector 4, Rourkela,
Odisha 769006, India
Lat 22.24248°
Long 84.874420°
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B.V.V.O. (Bihar Veterinary and Zoology Department), Sector 4, Rourkela, Odisha 769006, India
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SLOTH BEAR

Scientific name : *Melursus ursinus*

Distribution : India, Pakistan, Nepal, Bhutan and Bangladesh

Interesting facts : It has largest tail among all bears. Named for its slow moving habits, the sloth bear has poor sense of sight and hearing but a good sense of smell. Nocturnal animal. Shades of gray, red or brown may tinge its black shaggy coat. Also called honey bear.

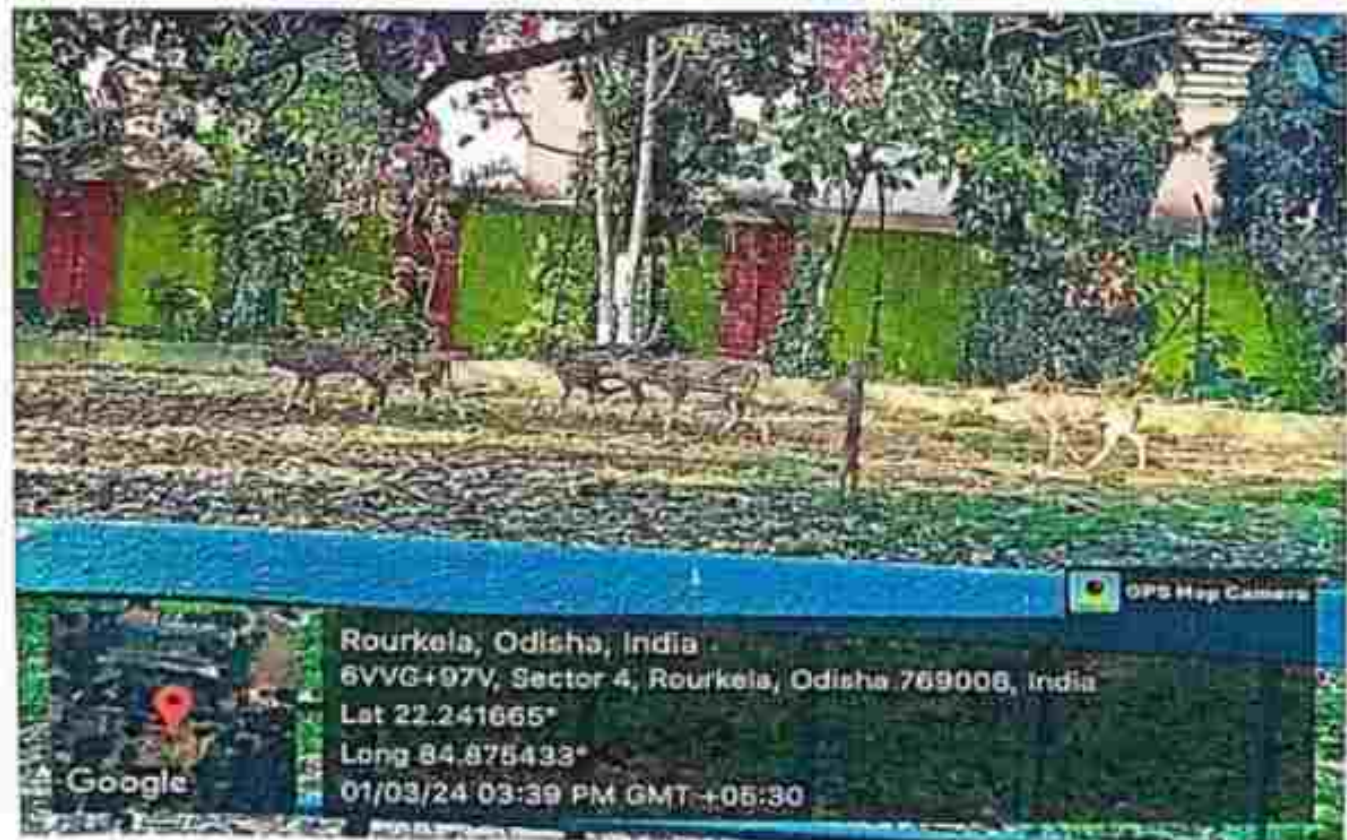
Habitat : mostly occurs in areas with forest cover, low hills bordering the outer range of the Himalayas from Punjab to Arunachal Pradesh.

Life span : 48 years

Conservation status: Schedule 1

Height	1.5m to 1.8m
Weight	100-150kg
Tail length	7-12cm

DEER





SPOTTED DEER

Scientific name : *Cervus axis*

Distribution : grasslands and forests in India and Sri Lanka

Interesting facts : Common names chital or cheetal deer also spotted deer. The antlers are present only on males. The upper parts are golden to rufous completely covered in white spots. The abdomen, rump, throat, insides of legs, ears and tail are all white. The antlers, three-pronged, are nearly 1m Long.

Habitat : grasslands ,forests

Life span : 20-30years

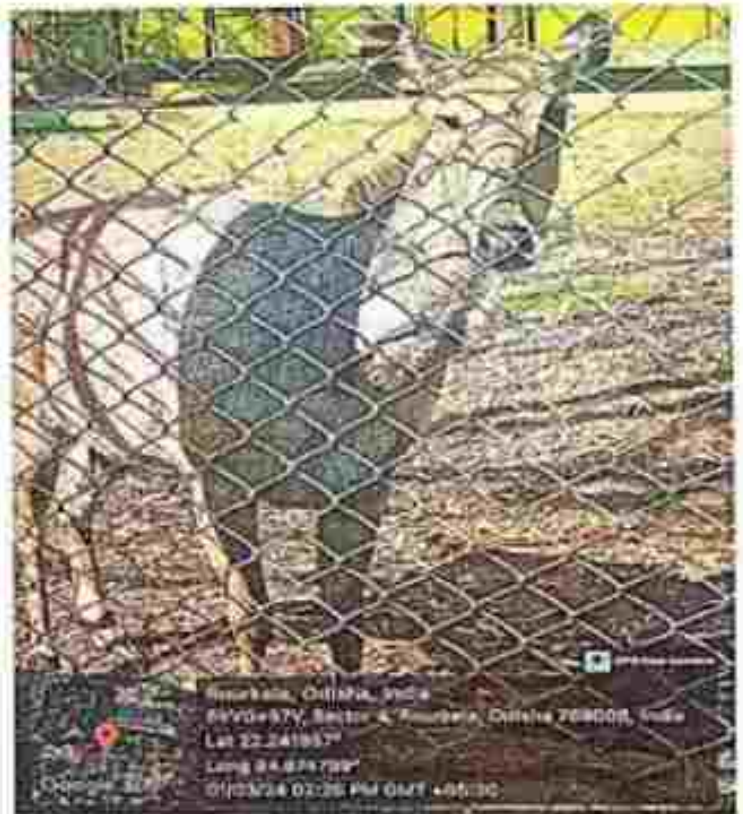
Conservation status least concern

Sex	Males	Females
Weight	70-90kg	40-60kg

NIL GAI



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 Long 84.974810°
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Blue Bull
Boselaphus tragocamelus

Throughout Indian peninsula except eastern Durgul, Assam and the Malabar coast.

Hilly areas sparsely dotted with trees and shrubs.

This is the largest Indian antelope. The adult bull has a coarse iron grey coat, a white ring below each fetlock and two white spots in each cheek. The male wears a distinctive tuft of stiff black hairs on the throat and have stout cone like horns.

16 to 20 years.

FOOD HABIT Grasses, green leaves, buds of flowers and fruits.

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NILGAI

Scientific name: *Boselaphus tragocamelus*

Distribution: Throughout Indian peninsular, eastern Bengal, Assam and the Malabar coast, Nepal and Pakistan

Interesting facts :

The Nilgai is one of the largest species of Asian antelope native to the Indian subcontinent. The name 'nilgai' translates to 'blue cow'.

The Nilgai is a diurnal animal (active during the day).

They are easily recognizable by their sloping back and white patch on throat, their thin sturdy legs and small mane of hair behind and along the back ending behind the shoulder.

The females are orange or tawny in colour while the males are darker with bluish grey in colouring.

Characteristics of a Nilgai	
Head and Body Length	1.7–2.1 metres
Weight	Males: 109–288 kilograms Females: 100–213 kilograms
Tail Length	54 centimetres
Horn Length	15–24 centimetres
Latin Name	<i>Boselaphus tragocamelus</i>
Habitat	India, Nepal, Pakistan, United States

SAMBAR



Rourkela, Odisha, India
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 Lat 22.24175°
 Long 84.875177°
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Rourkela, Odisha, India
 BVVG+97V, Sector 4, Rourkela, Odisha 769006, India
 Lat 22.241711°
 Long 84.875222°
 01/03/24 03:30 PM GMT +05:30

Scientific Name - *Rusa samsar*

Interesting facts - This is the largest Indian deer. This animal is the State animal of Odisha.

Habitat - Forested hill - sides near cultivation.

Distribution - Wooded districts of India, Sri Lanka, Myanmar and extending to the Malay

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SAMBAR

Scientific name : Russ unicolor

Distribution : Wooded districts of India, Sri Lanka, Myanmar and extending to the Malay countries and Philippines .

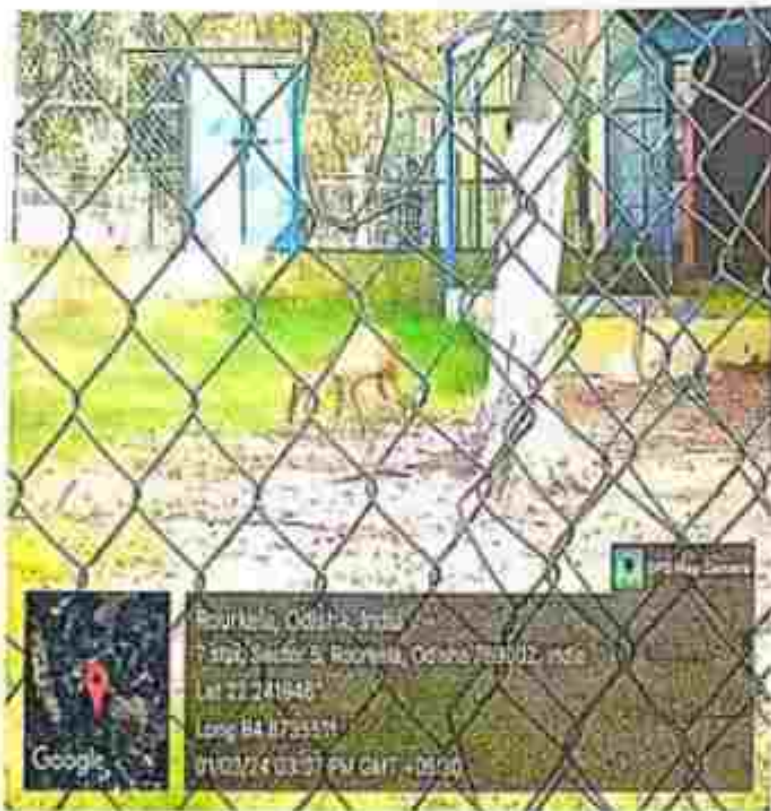
Interesting facts : This is the largest Indian deer This animal is the state animal of odisha. A large relatively long tailed-deer, it stands 1.2-1.4m at the shoulder. The coat forms a ruff around its neck and is an unspotted, dark brown in colour. The male sambar bears long, three-tined antlers.

Habitat : Forest hill sides near cultivation.

Life span : upto 28years

Conservation status: Schedule I

BARKING DEER



BARKING DEER

Scientific name : Muntiacus muntak

Distribution : Across southern India, including the western ghats, in the dry forests of central India, the evergreen temperate forests of the Himalayas and the dense rainforests of northeast India.

Interesting facts : They give loud intermittent call similar to the bark of a dog, hence the name barking deer. The upper canines of the males are well.

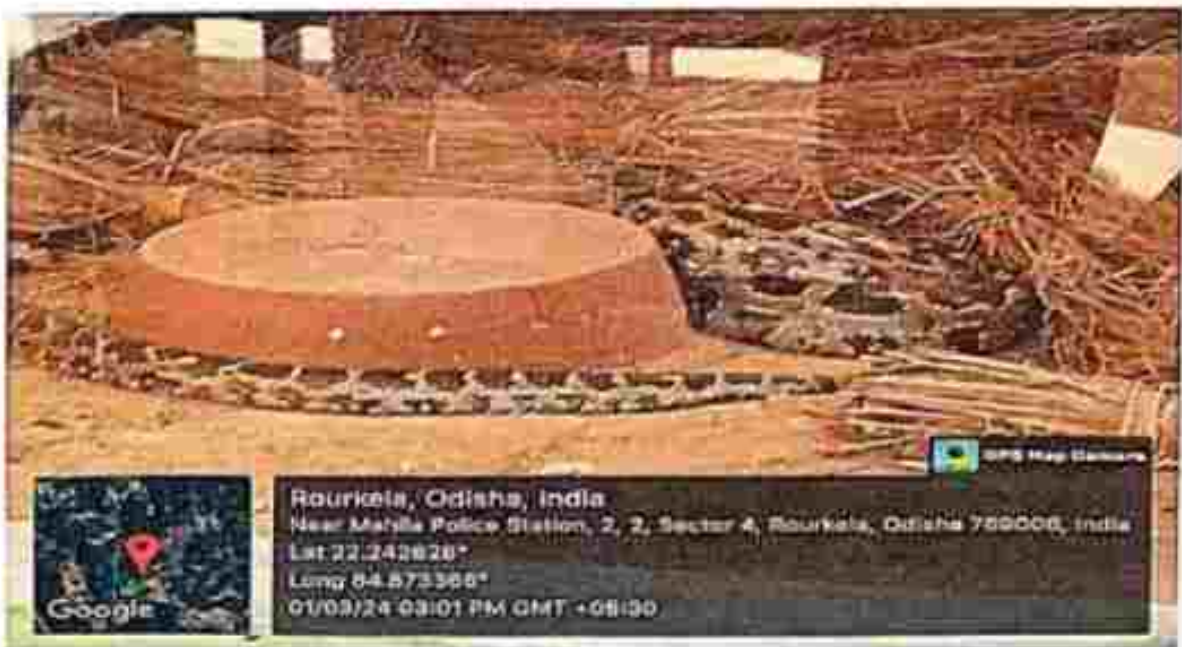
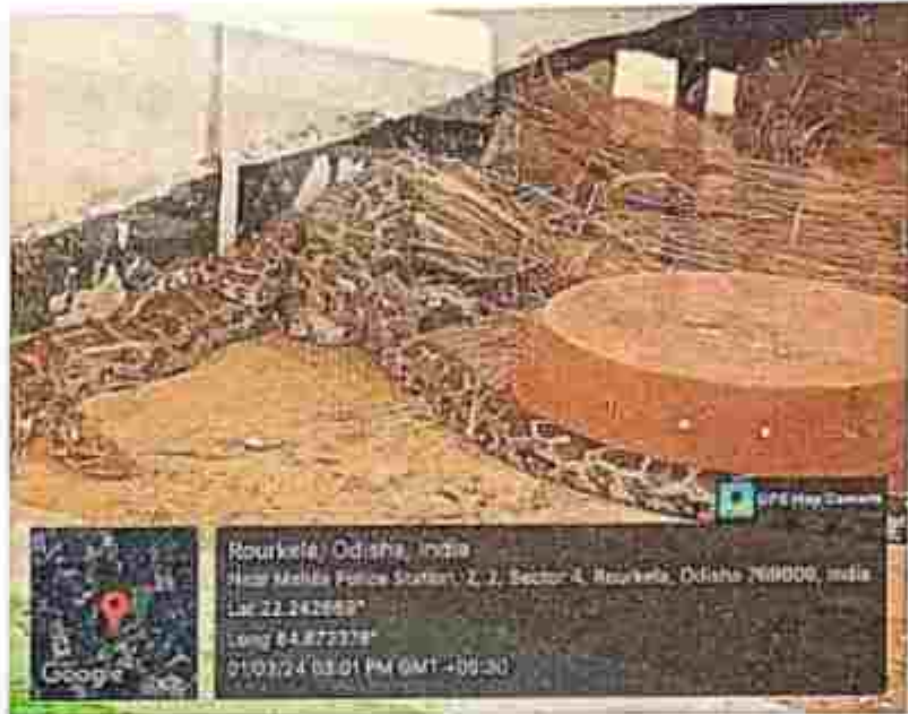
Habitat : usually found at the edge of the forest or in open areas. Barking deer in southern India is also found in large tea plantations because they feed mainly on tea seeds.

Life span : 20-30 years

Conservation status: least concern

King	
Life span	20-30 years

ROCK PYTHON



ROCK PYTHON

Scientific name :Python molurus

Distribution : nnative to tropical and subtropical regions of Indian subcontinent and southeast Asia.

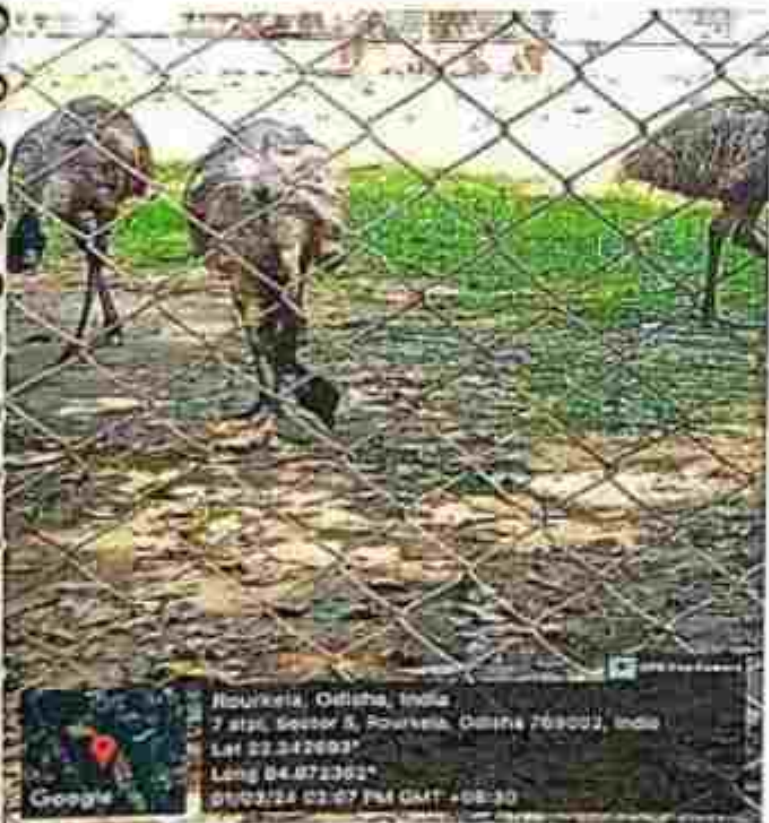
Interesting facts : It is also known by the common names black -tailed python,Indian rock python and Asian rock python. It is still among the largest snakes in the world. Like all pythons it is non venomous.

Habitat : grasslands Swamps, marshes, rocky foothills, woodlands, open forest and river valleys.

Life span : 30years

Conservation status Schedule 3:

RHEA BIRD



OSTRICH

Scientific name :Struthio camelus

Distribution :Africa

Interesting facts :The largest living bird. The male is mostly black but has white plumes in the wings and tails. Females are brown. Almost half of its height is neck. The ostrich egg averaging about 150mm in length by 125mm in diameter. A adult male may be 2.75meter tall. The head is small with big brown eyes with black lashes.

Habitat :grasslands, Savannah, shrublands of southern and eastern Africa.

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IMPORTANCE OF ZOO

Zoo can help to save endangered species by keeping them in a safe environment as it protected from poachers, predators, habitat loss and even starvation .

zoo is able to conserve animals only and only if the zoo management system of the zoo is strong and good.

Zoological Parks educate the general public about the biodiversity that makes up the world . They help humans and wildlife coexist well. They carry out ongoing research and education for the people. They save important natural resources.

Some zoos have breeding programmes this is another way to protect endangered species which may have trouble finding suitable mates in the world.

Zoos are a living museum. What we learn about wild animals in captivity can help us manage and conserve them in the wild. From animal behaviour, to reproductive rates to dietary requirements.

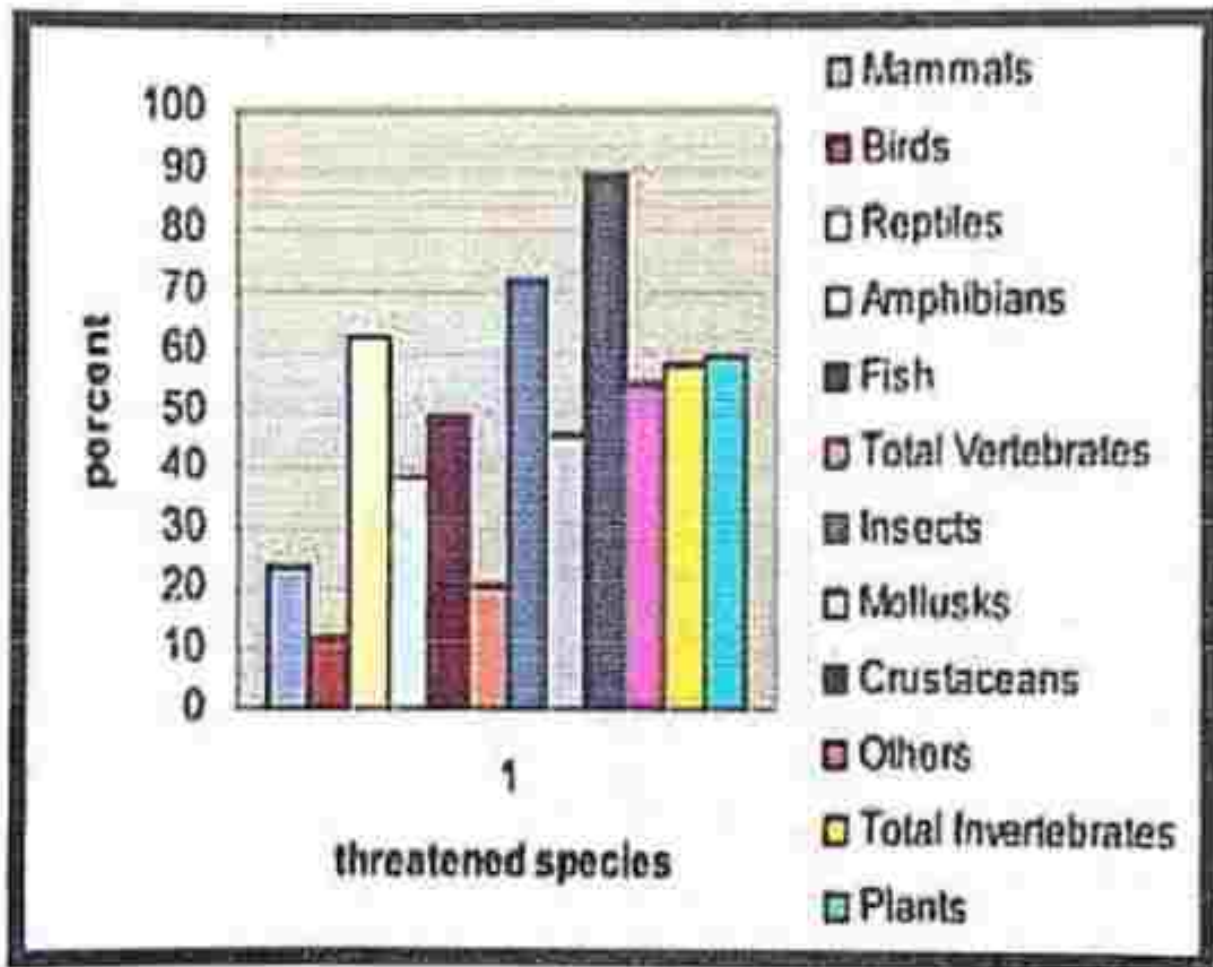
Zoos have an educational aspect.

Its easier to learn about an animal by seeing them in personal.

Fostering empathy by seeing an animal up close ,the public might be encouraged to be more empathic to species that is facing extinction in the wild.

Main purpose of zoo is for conservation,for education, for recreation and for research.

NUMBER OF THREATENED SPECIES IN INDIA

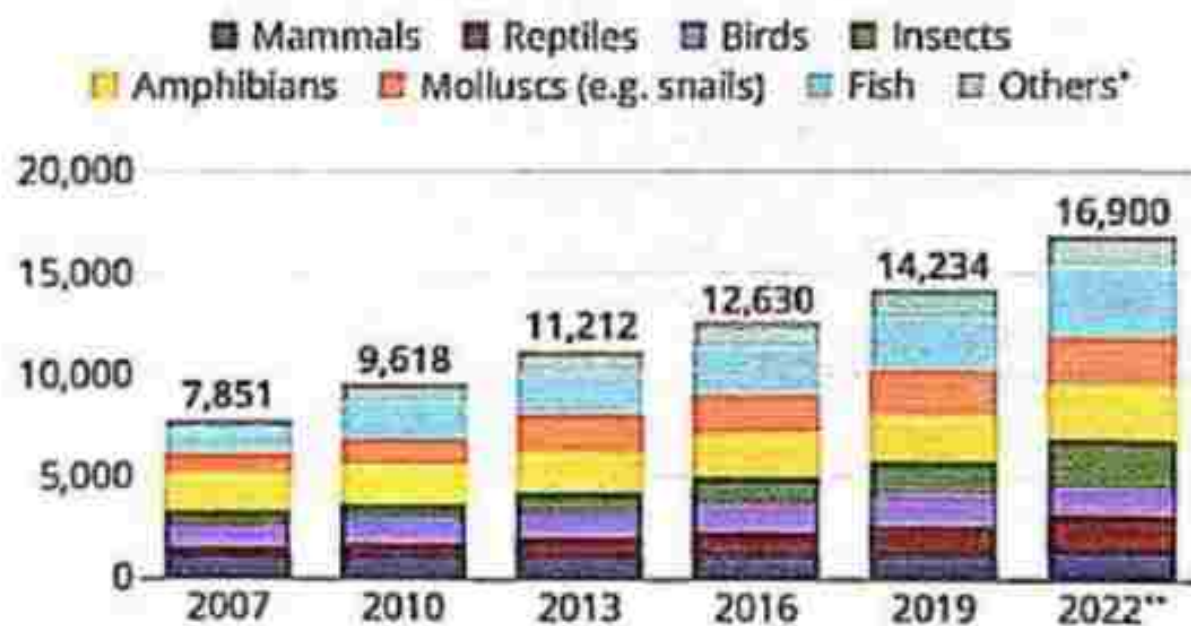


Number of threatened species in India

NUMBER OF ENDANGERED SPECIES IN INDIA

The Number of Endangered Species is Rising

Number of animal species on the IUCN Red List, by class

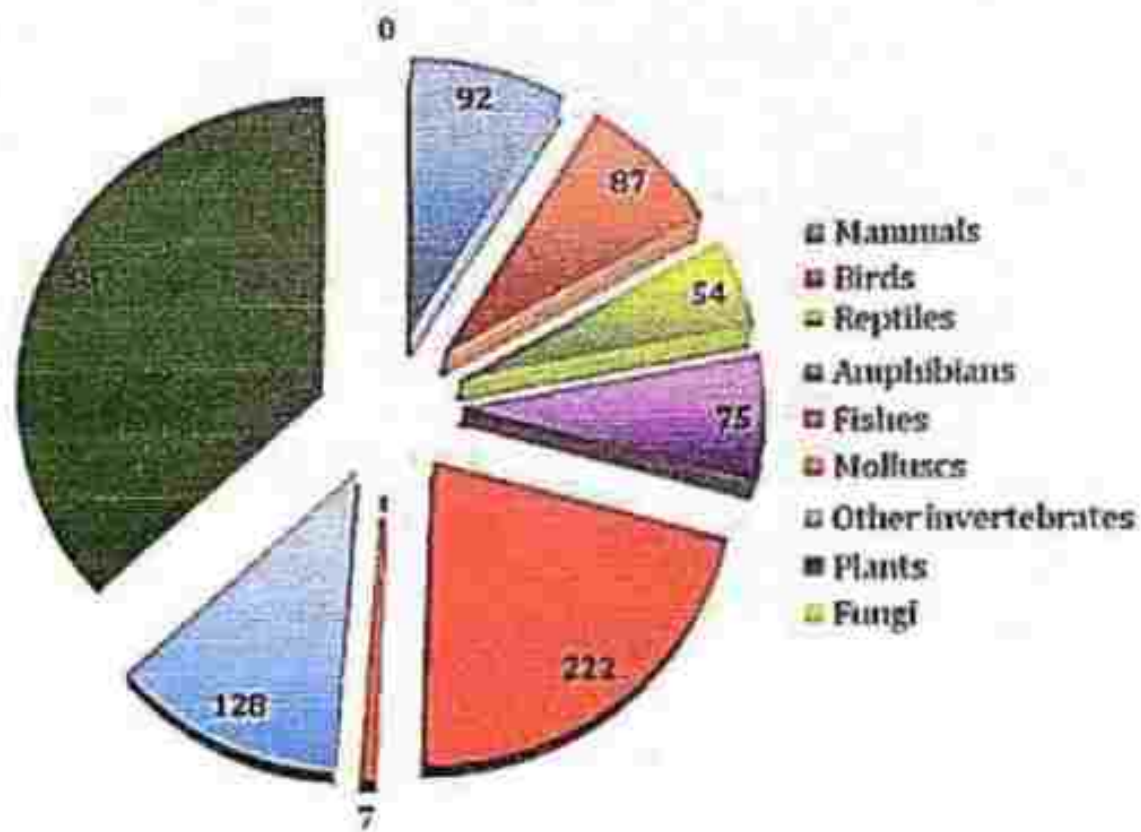


* other invertebrate (spineless) animals, such as crustaceans, corals and arachnids (spiders, scorpions)

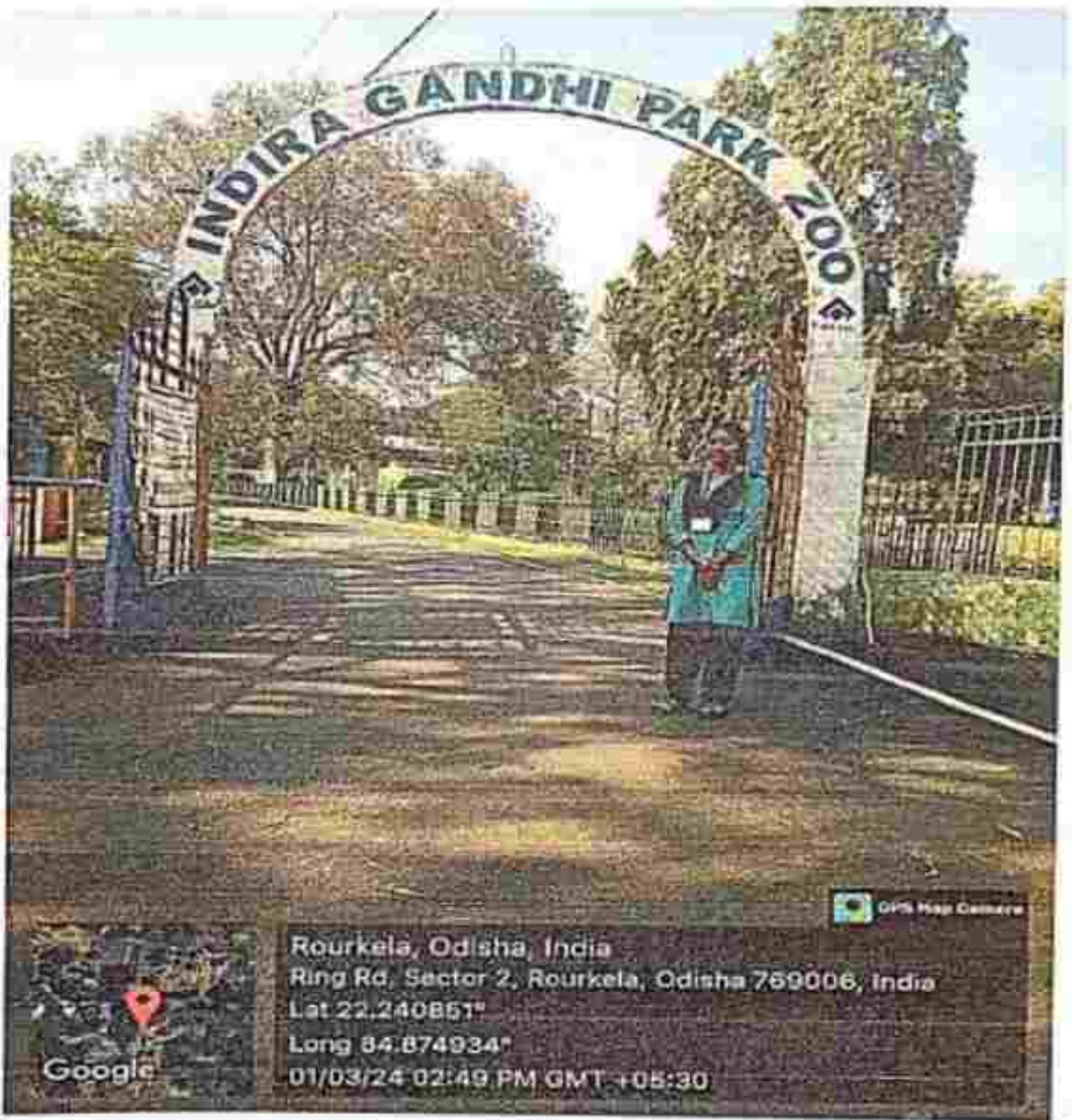
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Source: IUCN Red List

NUMBER OF SPECIES THREATENED CATEGORY OF INDIA



Number of species threatened category of india



AT INDIRA GANDHI PARK ZOO ROURKELA

QUESTIONNAIRE

1. takes care of animals in zoo?

Ans-Zoo keeper

2.What is the role of veterinary?

Ans-Health and disease management

3.What is the role of curator?

Ans-They oversee the care of animals and manage the zoo staff.

4.What is the role of zoo manager?

Ans- Ensures the zoo is compliant with all federal, state and other applicable laws and regulations governing the collection, exhibition and care of wild or exotic animals. Also directs the care and management of the animal collection.

5.What is the importance of central zoo authority?

Ans-The central zoo authority (CZA) is the body of the government of India responsible for oversight of zoos.

CONCLUSION

Zoo can help to save endangered species by keeping them in a safe environment as it protected from poachers, predators, habitat loss and even starvation .

zoo is able to conserve animals only and only if the zoo management system of the zoo is strong and good.

Some zoos have breeding programmes this is another way to protect endangered species which may have trouble finding suitable mates in the world.

Zoos have an educational aspect.

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Sanjani Esha

4/11/21
20/10/21

SARABATI DEVI WOMEN'S COLLEGE, RAJGANGPUR



DEPARTMENT OF ZOOLOGY

PROJECT ON ARTHROPOD PREDATOR AND INSECT PEST CONTROL



SUBMITTED BY:-

NAME:- PINKI GANDHA

+3 3rd year 5th sem ZOO. (H)

ROLL NO:- 505321ZOO001

REGD NO:-

GUIDED BY:-

MRS. SOROGINI EKKA

H.O.D (DEPT. ZOO.)

CO-GUIDED BY:-

MISS. Muskan sahu , MISS. Sarita Biswal



A PROJECT REPORT ON

"ZOO MANAGEMENT"



DEPARTMENT OF ZOOLOGY

GUIDED BY:

NAME- SAROJINI EKKA
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MISS MUSKAN SAHOO
MISS SARITA BISWAL

SUBMITTED BY:

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CLASS- +3 3rd Year (6th SEM)
UNI. ROLL NO :-
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SARBATIDEVI WOMEN'S COLLEGE RAJGANGPUR



DEPARTMENT OF ZOOLOGY

SESSION-(2023-2024)

**PROJECT ON "ON PROSPECT AND PROBLEMS OF ZOO
MANEGMENT"**



**Zoo management
system**

Guided by..
Mrs. Sarojini Ekka
(H.O.D OF DEPARTMENT OF ZOOLOGY)
Miss. Muskan Sahoo

Co-guided by
Miss. Sarita Biswal

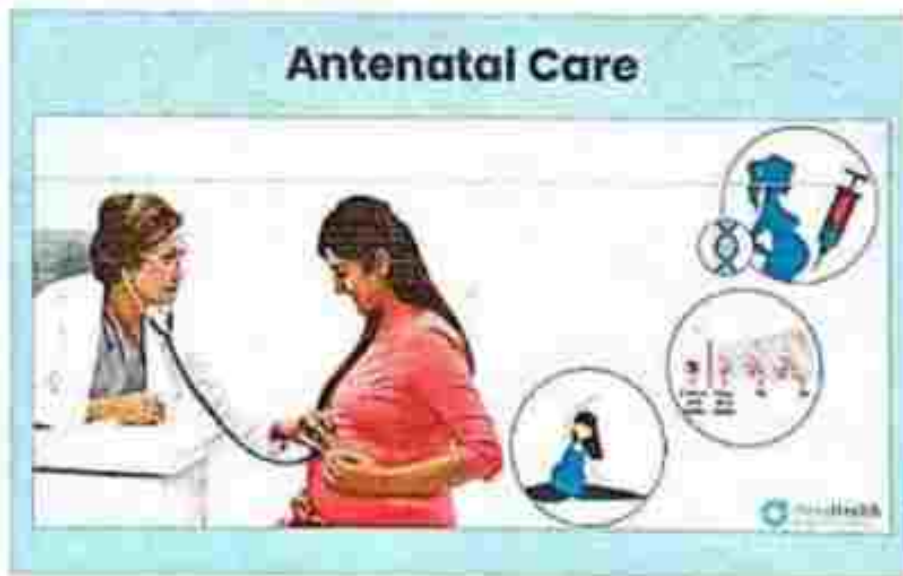
Submitted by
Priya praksima ekka
+3 3rd year (6th semester)

SARABATI DEVI WOMEN'S COLLEGE, RAJGANGPUR



DEPARTMENT OF ZOOLOGY
SESSION – 2023-24

PROJECT ON: "PREGNANCY DURATION AND CHOICE OF ANTENATAL AND
DELIVERY CARE"



Guided by:

Mrs. sarajini Ekka
(H.O.D. of department of ZOOLOGY)
Miss. muskan saho

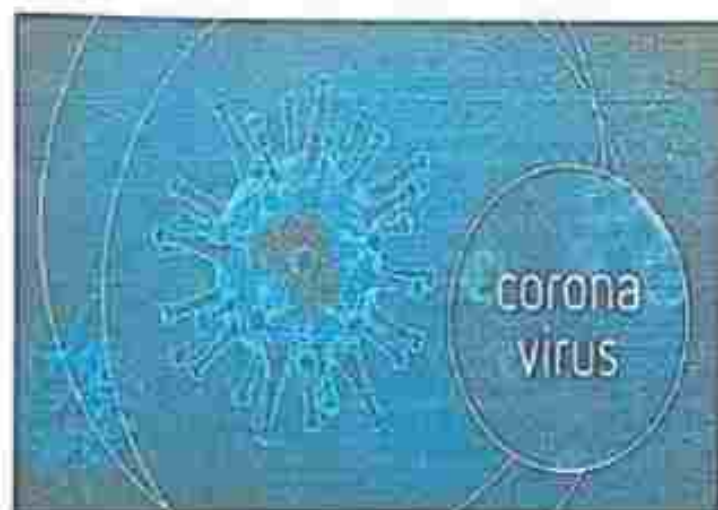
Co-Guided by:

Mrs. SARITA BISWAL

Submitted By:

Name: ARATI BAGH
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SARBATI DEVI WOMEN'S COLLEGE RAJGANGPUR



PROJECT: TRANSMISSION OF CORONA VIRUS ON ANIMALS AND HUMAN

Arpita Panigrahi
Roll no:-S05321200007
Registration no:-14562/21
+33rd year semester(6th semester)

DEPARTMENT OF ZOOLOGY

Guided by
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Miss.Sarita Biswal

**SARBATI DEVI WOMEN'S COLLEGE
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SESSION-2023-24

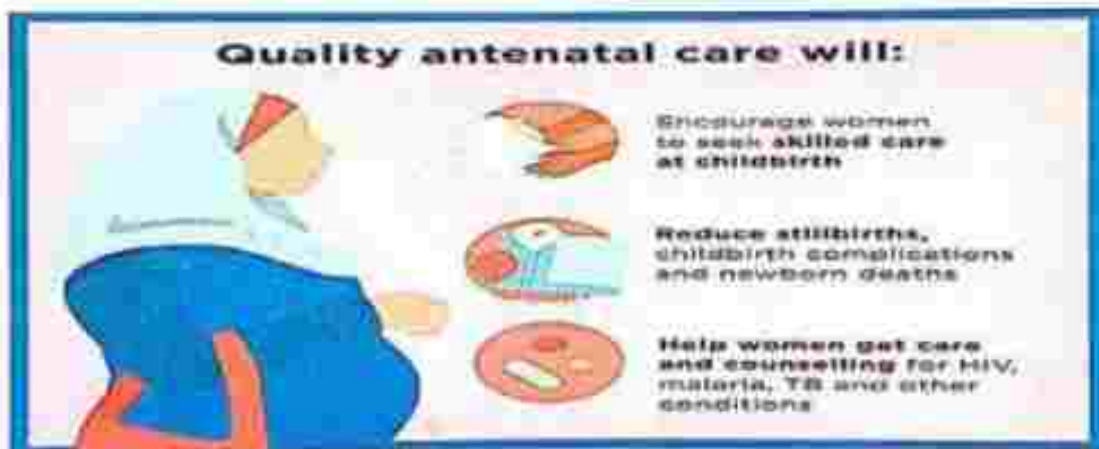
Semester-VI

DEPARTMENT OF ZOOLOGY

A PROJECT

ON

**"PREGNANCY DURATION AND CHOICE OF
ANTENATAL AND DELIVERY CARE"**



GUIDED BY:

Mrs. Sarojini Ekka

Miss Muskan Sahoo

Co-Guided By:

Miss Sarita Biswal

SUBMITTED BY:

NAME- Pratima Nanda

ROLL NO.: S05321ZOO008

+3 3rd Year, 6th Semester