

ANNUAL REPORT 2018-19



Indira Gandhi Park Zoo and Deer Park

Horticulture Department
Rourkela Steel Plant, Rourkela





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Report Of **OFFICER** -IN-CHARGE

Rourkela Steel Plant puts its continuous effort to maintain the vergant green canopy in gardens and parks which bedecked with colourful flowers are visitors' paradise. The Indira Gandhi Park Zoo & Deer Park maintained by us serve to provide visitors with recreation and relaxation and they are a huge draw throughout the year. Apart from this, Indira Gandhi Park Zoo & Deer Park, Rourkela have been playing a great role in animal health management. The zoo management has provided all measures for animal welfare, security and thrives to maintain a healthy environment for the zoo inmates.

Students, as also other visitors are keen followers and benefit a lot by getting knowledge and awareness of various flora and fauna through different zoo education programmes. This annual report is the testimony of activities undertaken during 2018-19. Plans are on the anvil to upgrade the zoo further and make it a centre of excellence in the arena of zoo education.

Avijit Biswas

DR. AVIJIT BISWAS

SENIOR VETERINARY OFFICER & I/C (ZDP)



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

- ▶ To provide a glimpse of some of the flora and fauna of the region
- ▶ To maintain a natural ecosystem in the Steel Township
- ▶ To provide awareness on conservation and education among all.



About us

Indira Gandhi Park Zoo and Deer Park is one of the major conservation centre for wild animals in northern part of Odisha. Conservation of wild fauna and spreading awareness among the common public is the prime objective of the zoo. The Zoo boasts of a landscape with soft green grasses, the glossy leaves of varied bushes, the lusturing 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 relax amidst nature in the serene environs. 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.

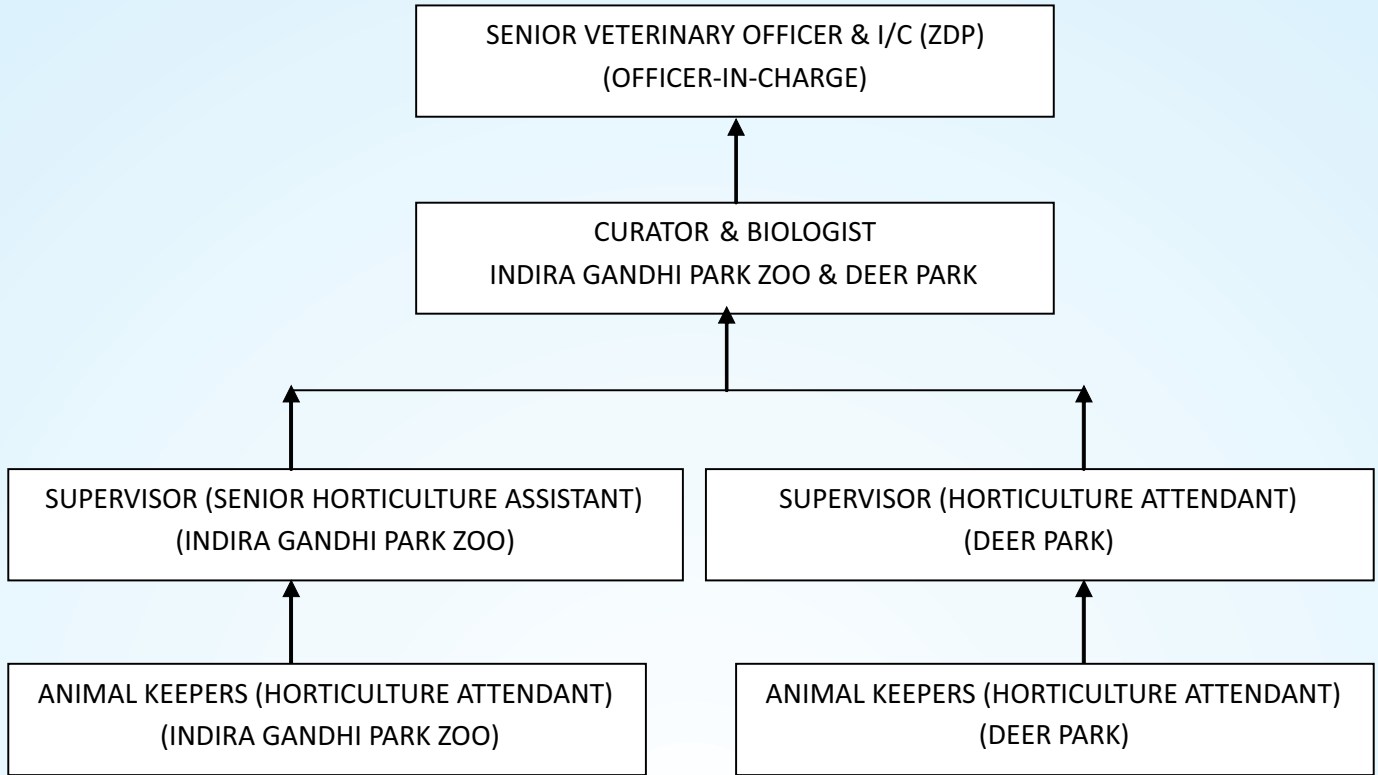
Deer Park is another unit of Indira Gandhi Park Zoo situated at Sector-8, Rourkela amidst dense vegetation and simulated habitat. The Deer Park is housed only spotted deer species for conservation and visitor awareness. The Deer Park was dedicated to the public by Sri V. Krishnamurthy on 16.02.1989, the then Chairman of Steel Authority of India Limited. Initially, the deer population were increasing more than hundred due to successful breeding among themselves. Later on guidelines of Central Zoo Authority, the male and female species of spotted deer were separated to control their population. Presently, there are 118 nos. of individuals are there at Deer Park among 39 are males and 79 are females.

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	indiragandhizoo-cza@cza.nic.in avijit.biswas@sailrsp.co.in
8	Website	
9	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)
10	Recognition Valid upto	31.01.2017
11	Category of zoo	Small Zoo

12	Area (in Hactares)	20.0
13	Number of Visitors	Adult: 5,82,534 nos.
		Children: Free entry below 5 years (No data available)
		Total Indian: 5,82,534 Nos.
		Total Foreigners: (No data available)
		Total Visitors: 5,82,534 Nos.
14	Visitor facilities available in Zoo	Aquarium, Musical Fountain, Boating in lake, Watch Tower, Doll Museum, Childrens' Play Arena, Restaurant, Refreshment kiosks, Drinking Water Kiosks, Sit Outs and Rain Shelters, etc.
15	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	None
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@sailrsp.co.in



Organisational Chart



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	0
6	Supervisor	2	2
7	Animal Keeper	7	3
8	Ticket Collector	2	2
9	Security Personnel	19	19
10	Gardener (Horticulture Attendant)	3	3

Capacity Building of Zoo Personnel

The management of Indira Gandhi Park Zoo & Deer Park has always given emphasis on capacity building of its zoo personnels. During the year 2018-19, Sri Hema Mishra, Supervisor, Animal Keeper attended the training programme from 17th to 21st December 2018 at Bhagwan Birsa Biological Park, Ormanjhi, Ranchi, Jharkhand on 'Zoo Keepers training

Sl. No.	Name and designation of the zoo personnel	Subject matter of training	Period of training	Name of the Institution where the training attended
1	Sri Hema Mishra, Sr. Horticulture Assistant (Supervisor)	Eastern Region Zoo Keepers training on Capacity Building of Indian Zoo Keeper	17.12.2018 To 22.12.2018	Bhagwan Birsa Biological Park, Ormanjhi, Ranchi, Jharkhand



Zoo Advisory Committee

- a. Date of Constitution: 01.09.2007
- b. Members: 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)
- c. Dates on which Meetings held during the year: NIL

Health Advisory Committee

Health Advisory Committee was not formed.

Statement of Income and Expenditure of the Zoo

YEAR	REVENUE GENERATION (₹)	EXPENDITURE (₹)
2018-19	58,25,340.00	90,67,203.00



Refreshment Kiosk



Rain Shelter



Public Convenience Complex



Children's Play Arena

Daily Feed Schedule of Animals

Sl. No.	Name of the Species	Diet	Qty. in KG/Day/ 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	
04	Chowsingha	Deer Mash	0.500	0.500	NIL
		Bengal gram	0.100	0.100	
		Green Grass	10.000	10.000	
			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	
		Baira	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	White Ibis	Small fish	0.150	0.150	NIL
11	Parakeet	Paddy	0.025	0.025	NIL
		Bengal gram	0.010	0.010	
		Fruits	0.150	0.150	
		Gota Moong	0.010	0.010	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
			0.197	0.197	
12	Golden pheasant	Paddy	0.025	0.025	NIL
		China dana	0.015	0.015	
		Poultry feed	0.005	0.005	
		Wheat	0.020	0.020	
		Vegetable	0.100	0.100	
		Gota Moong	0.050	0.050	
		Maize whole seed	0.020	0.020	
		Jowar	0.020	0.020	
		Baira	0.025	0.025	
		Sunflower	0.020	0.020	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
		Egg (nos.)	0.500	0.500	
			0.802	0.802	
13	Lady amhrest's pheasant	Paddy	0.025	0.025	NIL
		China dana	0.015	0.015	
		Poultry feed	0.005	0.005	
		Wheat	0.020	0.020	
		Vegetable	0.100	0.100	
		Gota Moong	0.050	0.050	
		Maize whole seed	0.020	0.020	
		Jowar	0.020	0.020	
		Baira	0.025	0.025	
		Sunflower	0.020	0.020	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
		Egg (nos.)	0.500	0.500	
			0.802	0.802	

14	Budgerigar	Paddy	0.010	0.010	NIL
		China dana	0.005	0.005	
		Poultry feed	0.005	0.005	
		Sunflower seed	0.005	0.005	
		Red millet	0.002	0.002	
		Niger	0.002	0.002	
		Canery seed	0.002	0.002	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
			0.033	0.033	
15	Love bird	Paddy	0.010	0.010	NIL
		China dana	0.005	0.005	
		Poultry feed	0.005	0.005	
		Sunflower seed	0.005	0.005	
		Red millet	0.002	0.002	
		Niger	0.002	0.002	
		Canery seed	0.002	0.002	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
			0.033	0.033	
16	Cockatiel	China dana	0.015	0.015	NIL
		Poultry feed	0.005	0.005	
		Wheat	0.010	0.010	
		Sun Flower Seed	0.005	0.005	
		Red Millet	0.008	0.008	
		Niger	0.008	0.008	
		Cannery seed	0.008	0.008	
		Grit	0.001	0.001	
		Cuttlefish bone	0.001	0.001	
			0.061	0.061	
17	Emu	Vegetables	0.875	0.875	NIL
		Fruits	0.500	0.500	
		Maize Seed	0.630	0.630	
		Egg (1 no. each)	0.050	0.050	
			2.055	2.055	
18	Ostrich	Ostrich Feed Mash	2.500	2.500	NIL
		Egg (1 no. each)	0.050	0.050	
			2.550	2.550	

19	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	
		Egg (0.5 no)	0.025	0.025	
			0.425	0.425	
REPTILES					
20	Gharial	Big Fish	1.500	1.500	TUE, THU & SAT
21	Mugger	Chicken	1.500	1.500	TUE, THU & SAT
22	Indian Rock Python	Chicken	1.250	1.250	EXCEPT MONDAY

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 monsson	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 of Zoonotic Diseases

The following employees of Indira Gandhi Park Zoo & Deer Park have been screened against zoonotic diseases on 30.01.2019 at Ispat General Hospital, Rourkela

Sl. No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1	Dr. Avijit Biswas	Sr. Vet. Off. & I/c (ZDP)	30.01.2019	Good Health
2	Dr. S. Mishra	Curator & Biologist	30.01.2019	Good Health
3	Sri Hema Mishra	Sr. Hort. Assistant	30.01.2019	Good Health
4	Sri Dhosa Nayak	Hort. Attendant	30.01.2019	Good Health
5	Sri Gujuru Lohar	Hort. Attendant	30.01.2019	Good Health
6	Sri Kartik Nayak	Hort. Attendant	30.01.2019	Good Health
7	Sri C.L. Mundary	Hort. Attendant	30.01.2019	Good Health

Development Works Carried Out in the Zoo During the Year

Different maintenance and development works were undertaken at IG Park Zoo during the year. Among the others, the following are some of the development activities during the year 2018-19.

- a) Construction of separation of service path and visitor path for the animal enclosures
- b) Elevation of rest portion of the perimeter wall to a height of 2.0 m from ground level on both sides
- c) Installation of Bio-compost machine for scientific disposal of solid wastes
- d) Repair work of chain-link mesh, MS iron structures and colour painting of iron structures.
- e) Construction of soak pits for proper disposal of liquid wastes. Renovation of water channels inside IG Park Zoo.

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 2018-19, more than 650 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.

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, 2 nos. of students of Ispat Autonomous College, Sector – 16, Rourkela had undertaken short-term research projects as follows:

Sl. No.	Name of the Student	Class	Title of Project Work
1	Ms. Namita Sahu	+3 Final Year	Study of hoofmarks of ungulates of Indira Gandhi Park Zoo, Rourkela
2	Ms. Sonali Biswas	+3 Final Year	Study of hoofmarks of ungulates of Indira Gandhi Park Zoo, Rourkela

Zoo Inmates



FOUR HORNED ANTELOPE



INDIAN PEAFOWL



INDIAN ROCK PYTHON



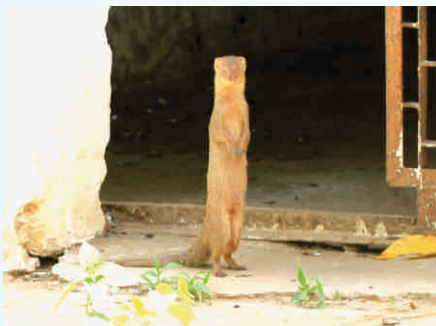
BARKING DEER



OSTRICH



MUGGER



COMMON MONGOOSE



LADY AMHREST'S PHEASANT



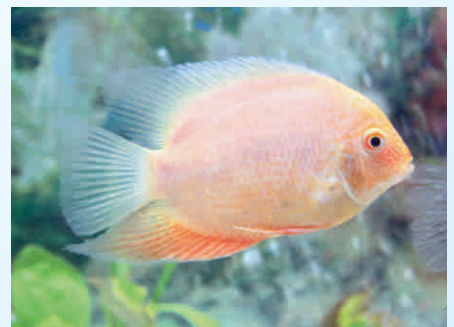
SAMBAR



SPOTTED DEER AT DEER PARK



LOVE BIRDS



GOLDEN GOURAMI

Annual Inventory of Animals ENDANGERED SPECIES

S. No.	Animal Name	Scientific Name	Opening Stock as on 01.04.2018				Births				Acquisitions				Disposal				Deaths				Closing Stock as on 31.03.2019							
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T				
1	Common Pea fowl	<i>Pavo cristatus</i>	3	1	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	4
	Hill Mynah	<i>Gracula religiosa</i>	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	Total Birds		3	1	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	1	5
1	Four-horned antelope	<i>Tetracerus quadricornis</i>	4	5	-	9	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	6	1	10
3	Common Mongoose	<i>Herpestes edwardsii</i>	3	3	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	6
4	Rhesus macaque	<i>Macaca mulatta</i>	2	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	3
	Total Mammals		9	9	-	18	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	8	10	1	19
1	Crocodile(Mugger)	<i>Crocodilus palustris</i>	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2
2	Gharial	<i>Gravialis gangeticus</i>	1	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	3
3	Python	<i>Python molurus</i>	2	-	2	4	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	2
	Total Reptiles		4	3	2	9	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	3	3	2	8

OTHER SPECIES

S. No.	Animal Name	Scientific Name	Opening Stock as on 01.04.2018				Births				Acquisitions				Disposal				Deaths				Closing Stock as on 31.03.2019											
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T								
1	White Ibis	<i>Threskiornithidae sp.</i>	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	1				
2	Parakeet	<i>Psittacula sp.</i>			27	27																							27	27				
3	Cockatiel	<i>Nymphicus sp.</i>			3	3																							3	3				
4	Budgerigarh	<i>Melopsittacus sp.</i>			14	14																							14	14				

Compliances with conditions stipulated by Central Zoo Authority

Sl. No.	Norm Under RZR, 2009	Condition Stipulated	Status with regard to compliance of the conditions
1	10.1(3)	The visitors' path exceeds 25 % of the periphery of the enclosure in case of many animal enclosures in the zoo.	Visitors' path restricted up to 25 % of the periphery of the enclosures of multispecies Deer enclosure, Barking deer enclosure, Pelican enclosure, Emu enclosure, Ostrich enclosure has already been done by fixing agro-net.
2	10.1(3)	The visitor path and service path are not separated; even the service entry to the animal enclosure is right in the middle of the visitors' path of the enclosure.	Separate visitor path and service path has been constructed for Deer enclosure & crocodile enclosures. Construction of bridge on service path to crocodile enclosure is in progress.
3	10.1(5)	The height of the perimeter wall is not increased to 2 meters from ground level throughout the length. It is enhanced only on road side. Rest of the perimeter wall is left as it is.	Heightening of boundary wall has already been done by erecting GI sheets except the area from Town Service Chowk to Main Gate (approx. 200 m) and Pelican enclosure to Club Garden(approx. 220 m). Contract has been awarded for construction of boundary wall. Work is in progress.
4	10.1(7)	The zoo has failed to manage solid and liquid wastes generated in the zoo with least impact on environment	The Bio-compost machine of 50 Kg. capacity has already been procured and commissioned for scientific management of solid wastes. 5 nos. of soak pits have already been constructed at designated places to manage the liquid waste generated from the enclosures.

5	10.1(9)	Stray dog menace is observed to be at alarming level. The zoo operator has failed to stop entry of stray dogs in the zoo premises.	4 nos. of Iron grill gates have been fixed to plug the drains in order to prevent entry of stray dogs.
6	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.	Senior Veterinary Officer & I/c (ZDP) is discharging the duty of Officer in-Charge of the zoo.
7	10.2(2)	The zoo operator has not posted scientific and technical staff as mandatory for a 'Small Zoo'	The Senior Veterinary Officer & I/c (ZDP) is discharging the duty of Officer in Charge of the zoo. Curator of the zoo has already been re-designated as 'Curator & Biologist' discharging the duty of both.
8	10.3(1)	The corrected master plan along with the lay out plan as advised by the CZA has not been submitted to the CZA for approval.	Master Plan for IG Park Zoo & Deer Park has been submitted to CZA on 23.05.2019 for its approval.
9	10.3(3) & 10.5(6)	The zoo is operating in 2 units at a distance from each other, in the Rourkela Township and their management is not proper. Not posted adequate curatorial and veterinary staff to keep a close watch on captive animals. Single staff has been deputed to feed the animals.	Presently 1 employee is looking after the deer for necessary feeding, watering and daily care. Annual maintenance contract has been processed for IG Park which includes 02 nos. of keepers to look after the animals at Deer Park. Staff residing in IG Park Zoo shifted outside Zoo.

10	10.3(3)	<p>The infrastructure of the zoo is located in haphazard manner. The residence of one staff, Operation Theatre/ Treatment Room, quarantine area of rescued animals, feed store, pathological lab are clubbed under one roof in a highly congested manner. It is closely located near the enclosure for four horned antelope. The master (layout) Plan amended as per observation communicated by the CZA is yet to be submitted to Central Zoo Authority for approval.</p>	<p>Work has been awarded for renovation of Zoo Veterinary Hospital. Work is in progress. Feed Store has been renovated and shifted as per Master Plan. Old barking deer enclosure has been modified as Quarantine & Isolation Ward in off exhibit area.</p> <p>Master Plan submitted on 23.05.2019 for approval.</p>
11	10.3(3) & 10.9(1)	<p>Theme of display and viable sex ratio of animals is not maintained. Barking Deer are housed in five different enclosures, of the two male Peafowl, single male is housed in two different enclosures where as single male Golden Pheasant is housed along with Lady Amherst's Pheasant.</p>	<p>Zoo animal exchange programme initiated with other zoos for pairing uni-sexed animals.</p>
12	10.3(6)	<p>The Animal Collection Plan of the Zoo is not yet finalized.</p>	<p>The Animal Collection Plan of IG Park Zoo and Deer Park has been submitted in the Master Plan for necessary approval.</p>

13	10.3(7)	<p>The zoo has acquired animals disproportionate to the availability of infrastructure. Acquired/ Rescued animals (python, common peafowl and four horned antelope) on 25.01.2010, 11.05.2012, 08.06.2014, 05.09.2014 and 03.06.2016 respectively without approval of CZA. Also the zoo exchanged four horned antelope with Zoological Garden, Alipore suppressing the fact.</p>	<p>Letter has communicated to PCCF (WL) & CWLW for necessary permission. Follow- up is being done.</p>
14	10.3(7)	<p>Rescued animals are housed in cages in front of hospital. There is no functional facility in the zoo.</p>	<p>Old barking deer enclosure has been modified as Quarantine & Isolation Ward in off exhibit area.</p>
15	10.3(7)	<p>Rescued animals are housed and displayed along with captive animals</p>	<p>Old barking deer enclosure has been modified as Quarantine & Isolation Ward in off exhibit area.</p>
16	10.3(8)	<p>Report on rescued animals indicating source, legality of acquisition and infrastructure available for housing, upkeep and healthcare of the rescued animals has not been submitted by the Zoo Operator to the Chief Wildlife Warden of the State and Central Zoo Authority.</p>	<p>Report in respect of endangered species is being sent to CZA quarterly and annually. But birth/acquisition of such species is to be reported within 24 hours.</p>

17	10.4(2)	All the animal enclosures in the zoo is not in accordance with the specification of the CZA	Rest shade of Four-horned antelope enclosure has been constructed. Mongoose enclosure has been modified.
18	10.5(2)	Diet schedule has not been prepared and is not being implemented	Diet Schedule has been printed and pasted on each enclosure.
19	10.5(5)	Sample of feed and water is not tested at random for contaminants	Test report for water and feed samples against any contaminants is being filed regularly.
20	10.5(5)	Schedule for disinfection of enclosures has not been prepared and implemented.	Complied
21	10.5(8)	Schedule for vaccination and other prophylactic measures has not been prepared and implemented.	Complied
22	10.5(9)	Failed to screen staff involved in upkeep of animals against zoonotic diseases	The staffs have been screened for zoonotic diseases including Tuberculosis on 30.01.2019.

23	10.5(10)	Records of the animals, namely animal History Card, Keeper's Diary, Daily Report and Treatment Card are not being maintained in format prescribed by the Central Zoo Authority.	Complied
24	10.6(1b)	Veterinary infrastructure is grossly inadequate. Infrastructure for treatment of animals and clinical examination is not provided in the zoo. The zoo has failed to constitute health advisory committee at zoo level and seek the guidance from the members in the matter of health and upkeep of animals.	Contract for construction of Zoo Hospital has been awarded and job started. Meeting of Health Advisory Committee held at IG Park on 05.04.2019.
25	10.6(1b)	Did not maintain record on procurement of vials of chemical immobilization drugs	Complied
26	10.6(3)	Quarantine Ward and Animal Isolation ward are in dilapidated condition and abandoned.	Old barking deer enclosure has been modified as Quarantine & Isolation Ward in off exhibit area.
27	10.6(3)	Animal restraining equipment is inadequate with respect to the animal collection of the zoo.	Physical and Chemical restraining equipments are there.
28	10.6(5)	The Zoo Operator has not posted Veterinary Staff as per prescribed norms.	The engagement of veterinary compounder/ stockman is in process through AMC of IG Park.

29	10.7(4)	The disposal of carcass is improper. The wall adjacent to the burial ground is less than prescribed height. Thus, there exists chance for entry of stray animals.	Contract for heightening of boundary wall has been awarded and work under progress.
30	10.9(4)	Housed Rosy Pelican and Golden Pheasant singly.	Letter has been communicated to other zoos and yet to receive any positive response.
31	10.9(9)	Spotted deer housed in the zoo is beyond carrying capacity. The Zoo Operator has not adopted effective population control measures in prolific breeding species in spite of repeated advisory from this Authority.	Complied
32	10.12(2)	The anti-venom serum for snake bite is not available in the zoo premises	Complied
33	11(1)	The Zoo has not reported species displayed in the Aquarium in the Annual Inventory submitted to the Central Zoo Authority.	A list of fishes displayed in Aquarium has already been communicated with Annual inventory of animals in the month of April, 2019.

34	11(1)	<p>The factual information has not been recorded in the Animal Stock Register. Discrepancies observed during evaluation in the Animal Stock Register are as follows:</p> <ul style="list-style-type: none"> a. Indicates presence of stock few species that were not found during evaluation. This has specific reference to Hill Mynah and Common Mongoose. On enquiry, it is stated that these species are freely available. The zoo is to maintain records of only captive animals. b. As per inventory reported to the CZA, one male spotted deer died on 31.01.2017 where as the post mortem report and stock register indicate that the animal died is female. <p>As per stock register, the zoo disposed Star Tortoise on 24.06.2016. However, same is not reflected in the inventory report submitted to the CZA.</p>	Complied.
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Checklist of Free Ranging Wildlife at Indira Gandhi Park Zoo & Deer Park

MAMMALS

S. N.	English Name	Scientific Name	Status
1.	Common mongoose	(<i>Herpestes edwardsi</i>)	VC
2.	Jungle cat	(<i>Felis chaus</i>)	R
3.	Eastern mole	(<i>Talpa micrura</i>)	C
4.	Indian mole rat	(<i>Bandicota bengalensis</i>)	C
5.	Bandicote Rat	(<i>Bandicota indica</i>)	VC
6.	Common fruit bat	(<i>Pteropus giganteus</i>)	VC

BIRDS

1	Little Cormorant	(<i>Phalacrocorax niger</i>)	VC
2	Darter or Snake-bird	(<i>Anhinga rufa melanogaster</i>)	VR
3	Pond Heron	(<i>Ardeola grayii</i>)	C
4	Cattle Egret	(<i>Bubulcus ibis coromandus</i>)	VC
5	Smaller or Median Egret	(<i>Egretta intermedia</i>)	R
6	Little Egret	(<i>Egretta garzetta</i>)	VC
7	Night Heron	(<i>Nycticorax nycticorax</i>)	C
8	Openbill Stork	(<i>Anastomus oscitans</i>)	VC
9	Lesser Whistling Teal or Tree Duck	(<i>Dendrocygna javanica</i>)	VR
10	Pariah Kite	(<i>Milvus migrans govinda</i>)	VR
11	Shikra	(<i>Accipiter badius dussumderi</i>)	R
12	Red Jungle fowl	(<i>Gallus gallus murghi</i>)	R
13	White breasted Waterhen	(<i>Amaurornis phoenicurus boliocephalus</i>)	C
14.	Bronze winged Jacana	(<i>Metopidius indicus</i>)	C
15	Indian Blue Rock Pigeon	(<i>Columba livia intermedia</i>)	C
16	Indian Spotted Dove	(<i>Streptopelia chinensis</i>)	VC
17	Rose-ringed Parakeet	(<i>Psittacula krameri</i>)	VR
18	Indian Koel	(<i>Eudynamys scolopacea</i>)	VC
19	Common Crow-Pheasant or Coucal	(<i>Centropus sinensis</i>)	VC
20	Eastern Spotted Scops Owl	(<i>Otus spilocephalus</i>)	VR
21	Barn Owl	(<i>Tyto alba</i>)	VC
22	Indian Jungle Nightjar	(<i>Caprimulgus indicus</i>)	C
23	Lesser Pied Kingfisher	(<i>Ceryle rudis</i>)	VR

24	Indian Small Blue Kingfisher	(<i>Alcedo atthis bengalensis</i>)	VR
25	Eastern White breasted Kingfisher	(<i>Halcyon smyrnensis perpulchra</i>)	C
26	Indian Small Green Bee-eater	(<i>Merropos orientalis</i>)	C
27	Indian Roller or Blue Jay	(<i>Coracias benghalensis</i>)	C
28	Small Green Barbet	(<i>Megalaima viridis</i>)	R
29	Yellow fronted Pied or Mahratta Woodpecker	(<i>Picoides mahrattensis</i>)	R
30	Larger Golden backed Woodpecker	(<i>Chrysocolaptes lucidus</i>)	C
31	Indian Golden Oriole	(<i>Oriolus oriolus</i>)	C
32	Indian Black headed Oriole	(<i>Oriolus xanthornus</i>)	C
33	Indian Black Drongo	(<i>Dicrurus macrocercus</i>)	VC
35	Black-headed or Brahminy Myna	(<i>Sturnus pagodarum</i>)	R
36	Indian Pied Myna	(<i>Sturnus contra</i>)	R
37	Indian Myna	(<i>Acridotheres tristis</i>)	VC
38	Northeastern Tree Pie	(<i>Dendrocitta vagabunda</i>)	VC
39	Indian House Crow	(<i>Corvus splendens</i>)	VC
40	Indian Jungle Crow	(<i>Corvus macrorhynchos culminates</i>)	VR
41	Large Cuckoo-shrike	(<i>Coracina novaehollandiae</i>)	R
42	Bengal Red whiskered Bulbul	(<i>Pycnonotus jocosus</i>)	R
43	Orissa Red vented Bulbul	(<i>Pycnonotus cafer</i>)	C
44	Striated Babbler	(<i>Turdoides subrufus</i>)	R
45	Orissa Jungle Babbler	(<i>Turdoides striatus orissae</i>)	VC
46	Indian Tailor Bird	(<i>Orthotomus sutorius</i>)	VR
47	Yellow Browed Leaf Warbler	(<i>Phylloscopus inornatus</i>)	R
48	Indian Magpie Robin	(<i>Copsychus saularis</i>)	C
49	Indian White Wagtail	(<i>Motacilla alba</i>)	R
50	Forest Wagtail	(<i>Motacilla indica</i>)	VR
51	Indian Purplerumped Sunbird	(<i>Nectarinia zeylonica sola</i>)	R
52	Indian Purple Sunbird	(<i>Nectarinia asiatica</i>)	C
53	Indian White-eye	(<i>Zosterops palpebrosa</i>)	R
54	Indian Baya	(<i>Ploceus philippinus</i>)	VR

REPTILES

1	Land Monitor lizard	(<i>Varanus bengalensis</i>)	VC
2	Indian Python	(<i>Phython molurus</i>)	C
3	Russels Viper	(<i>Daboia russelli</i>)	C

4	Banded krait	(<i>Bungarus fasciatus</i>)	R
5	Common Indian Krait	(<i>Bungarus caeruleus</i>)	R
6	Indian Cobra Binocellate	(<i>Naja naja naja</i>)	R
7	Cobra Monocellate	(<i>Naja naja kaouthia</i>)	R
8	Rat Snake	(<i>Ptyas mucosus</i>)	VC
9	Common Indian Broze back or tree snake	(<i>Dendrelaphis tristis</i>)	C
10	Checkered keel back	(<i>Xenochrophis piscator</i>)	C
11	Chameleon	(<i>Chameleon zeylanicus</i>)	C
12	Common Green Whip Snake	(<i>Ahaetulla nasuta</i>)	R
13	Earth Boa	(<i>Eryx johnii</i>)	C
14	Garden lizard	(<i>Calotes verricolor</i>)	VC
15	Blind snake	(<i>Typlops graminus</i>)	C

Status : VR- Very Rare / R- Rare / VC- Very Common / C- Common

Butterflies of Indira Gandhi Park Zoo

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 nomus</i>	O
9	COMMON BANDED PEACOCK	<i>Papilio crino</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>Eurema hecabe</i>	VC
15	SPOTLESS GRASS YELLOW	<i>Eurema laeta</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 libythea</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>Pareronia valeria</i>	C

FAMILY NYMPHALIDAE

27	COMMON EVENING BROWN	<i>Melanitis leda</i>	O
28	COMMON PALMFLY	<i>Elymnias hypermenstra</i>	O
29	COMMON BUSHBROWN	<i>Mycalesis perseus</i>	O
30	DARK BRANDED BUSHBROWN	<i>Mycalesis mineus</i>	R
31	NIGGER	<i>Orsotriaena medus</i>	O
32	COMMON FOURRING	<i>Ypthima huebneri</i>	O
33	COMMON NAWAB	<i>Polyura athamas</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 perius</i>	R
38	COMMANDER	<i>Limenitis procris</i>	O
39	COMMON BARON	<i>Euthalia aconthea</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 genutia</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 zalmora</i>	O

58	PALE GRASS BLUE	<i>Psuedozizeeria maha</i>	O
59	LESSER GRASS BLUE	<i>Zizina otis</i>	O
60	LIME BLUE	<i>Chilades laius</i>	O
61	GRAM BLUE	<i>Euchrysops cnejus</i>	O
62	PEA BLUE	<i>Lampides boeticus</i>	O
63	TINY BLUE	<i>Zizula hylax</i>	C
64	COMMON CERULEAN	<i>Jamides celeno</i>	C
65	LINE BLUE SP.	<i>Nacaduba sp.</i>	O
66	LEAF BLUE	<i>Amblypodia anita</i>	C
67	COMMON SILVERLINE	<i>Spindasis vulcanus</i>	VC
68	CLUB SILVERLINE	<i>Spindasis syama</i>	C
69	SLATE FLASH	<i>Rapala manea</i>	C
70	SUNBEAM	<i>Curetis thetis</i>	C

FAMILY HESPERIIDAE

71	INDIAN SKIPPER	<i>Spialia galba</i>	O
72	COMMON SMALL FLAT	<i>Sarangesa dasahara</i>	O
73	BUSH HOPPER	<i>Ampittia dioscorides</i>	C
74	GOLDEN ANGLE	<i>Caprona ransonnetti</i>	I
75	INDIAN/CEYLON ACE	<i>Halpe homolea</i>	O
76	CHESTNUT BOB	<i>Iambrix salsala</i>	O
77	RESTRICTED DEMON	<i>Notocrypta curvifascia</i>	R
78	GRASS DEMON	<i>Udaspes folus</i>	R
79	INDIAN PALM BOB	<i>Suastus gremius</i>	R
80	TREE FLITTER	<i>Hyarostis adrastus</i>	C
81	COMMON REDEYE	<i>Matapa aria</i>	C
82	GIANT REDEYE	<i>Gangara thyrasis</i>	R
83	COMMON GRASS DART	<i>Taractrocera maeivus</i>	O
84	RICE SWIFT	<i>Borbo cinnara</i>	O
85	SMALL BRANDED SWIFT	<i>Pelopidas mathias</i>	C

Status : VC- Very Common / C-Common / O-Ocassional / R - Rare / I-Indeterminate

ODONATE FAUNA OF INDIRA GANDHI PARK ZOO & DEER PARK, ODISHA

SUBORDER : ANISOPTERA

FAMILY - AESHNIDAE

1	Blue Darner	<i>Anax immaculifrons</i> Rambur, 1842
2	Blue-tailed Green Darner	<i>Anax guttatus</i> Leach, 1815
3	Parakeet Darner	<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>Acisoma panorpoides</i> Rambur, 1842
8	Scarlet Marsh Hawk	<i>Aethriamanta brevipennis</i> (Rambur, 1842)
9	Little Blue Marsh Hawk	<i>Brachydiplax sobrina</i> (Rambur, 1842)
10	Ditch Jewel	<i>Brachythemis contaminata</i> (Fabricius, 1793)
11	Granite Ghost	<i>Bradinyopyga geminata</i> (Rambur, 1842)
12	Emerald-banded Skimmer	<i>Cratilla lineata</i> Foerster, 1903
13	Ruddy Marsh Skimmer	<i>Crocothemis servilia</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>Lathrecista asiatica</i> (Fabricius, 1798)
18	Fulvous Forest Skimmer	<i>Neurothemis fulvia</i> (Drury, 1773)
19	Ruddy 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-coloured 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 pruinosum</i>
25	Blue-tailed Yellow Skimmer	<i>Palpopleura sexmaculata</i> (Fabricius, 1787)
26	Wandering Glider	<i>Pantala flavescens</i> (Fabricius, 1798)
27	Yellow-tailed Ashy Skimmer	<i>Potamarcha 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>Tamea basilaris</i> (Palisot de Beauvois, 1805)
32	Black Marsh Trotter	<i>Tamea limbata</i> (Desjardins, 1832)
33	Crimson Marsh Glider	<i>Trithemis aurora</i> (Burmeister, 1839)
34	Long-legged Marsh Glider	<i>Trithemis pallidinervis</i> (Kirby, 1889)
35	Greater Crimson Glider	<i>Urothemis signata</i> (Rambur, 1842)
36	Brown Dusk Hawk	<i>Zyxomma petiolatum</i> Rambur, 1842

FAMILY - MACROMIIDAE

37	Common Torrent Hawk	<i>Epophthalmia vittata</i> Burmeister, 1839
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SUBORDER : ZYGOPTERA

FAMILY - COENAGRIONIDAE

38		<i>Aciagrion occidentale</i> Laidlaw, 1919
39		<i>Aciagrion pallidum</i> Selys, 1891
40	Dartlet species	<i>Agriocnemis femina</i> (Brauer, 1868)
41	Pygmy Dartlet	<i>Agriocnemis pygmaea</i> (Rambur, 1842)
42	Dartlet species	<i>Agriocnemis sp.nov.</i>
43	Orange-tailed Marsh Dart	<i>Ceriagrion cerinorubellum</i> (Brauer, 1865)
44	Coromandel Marsh Dart	<i>Ceriagrion coromandelianum</i> (Fabricius, 1798)
45	Golden Dartlet	<i>Ischnura aurora</i> (Brauer, 1865)
46	Senegal Golden Dartlet	<i>Ischnura senegalensis</i> (Rambur, 1842)
47	Black Marsh Dart	<i>Onychargia atrocyana</i> (Selys, 1865)
48	Pale Blue Marsh Dart	<i>Pseudagrion decorum</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

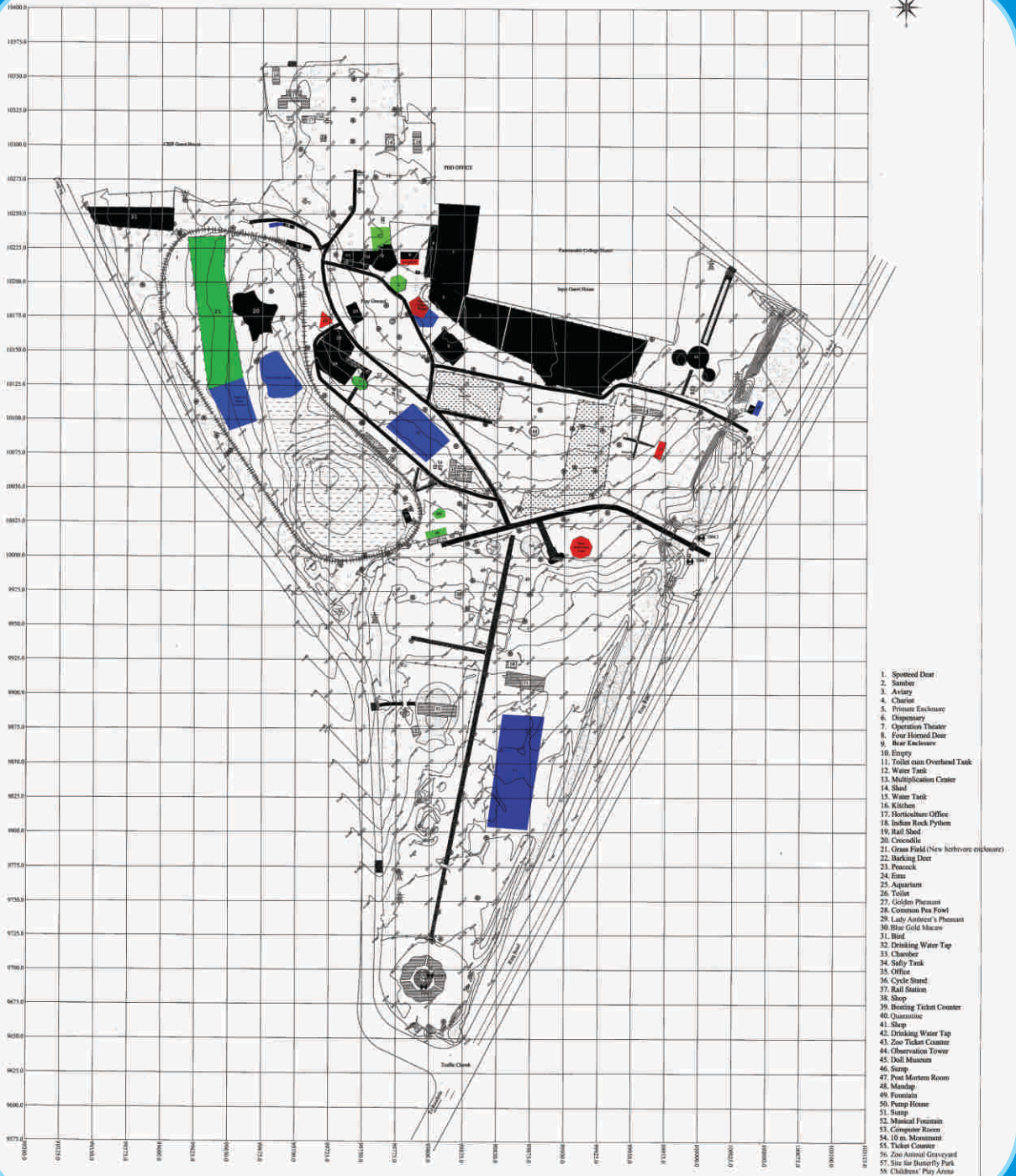
51	Brown Spreadwing	<i>Lestes umbrinus</i> Selys, 1891
52	Emerald-striped Spreadwing	<i>Lestes viridulus</i> Rambur, 1842

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)



LAYOUT MAP OF INDIRA GANDHI PARK ZOO





INDIAN PEA FOWL

CONTACT :

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