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### VAN VIHAR NATIONAL PARK AND ZOO BHOPAL



## Annual Report for the year 2018-19

S.No	Section	Page Number
1.	Report of the Officer-in-charge	4 - 5
2.	History of the Zoo	6 - 7
3.	Vision	8-8
4.	Mission	8 - 8
5.	Objective	8 - 9
6.	About us	9 - 10
7.	Organizational Chart	11 - 11
8.	Human Resources	11 - 13
9.	Capacity Building of the zoo personnel	14 - 14
10.	Zoo Advisory Committee	14-14
11.	Health Advisory Committee	14-14
12.	Statement of income and expenditure of the Zoo	14-14
13.	Daily feed Schedule of animals	15-16
14.	Vaccination Schedule of animals	17-17
15.	De-worming Schedule of animals	17-18
16.	Disinfection Schedule	18-18

#### CONTENTS

S.No	Section	Page Number
17.	Health Check-up of employees for zoonotic diseases	19 - 19
18.	Development Works carried out in the zoo during the year	20 - 20
19.	Education and Awareness programmes during the year	20 - 26
20.	Important Events and happenings in the zoo	26 - 27
21.	Seasonal special arrangements for upkeep of animals	27 - 29
22.	Research work carried out and Publication	29-29
23.	Conservation Breeding Programme of the Zoo	29-30
24.	Animal acquisition / transfer / exchange during the year	30-30
25.	Rescue and Rehabilitation of the wild animals carried out by the zoo	30-30
26.	Annual Inventory of animals	31-32
27.	Mortality of animals.	32-32
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	33-36
29.	List of free living wild animals within the zoo premises	37-44

#### 1. REPORT OF THE OFFICER-IN-CHARGE

Van Vihar National Park-Zoo Bhopal with its variety of fascinating feathered creatures, mesmerizing reptiles, free ranging herbivores and captive carnivores which are encompassed by greenery all around is one of the most revered National Parks and Zoo in Central India. Situated within the city of Bhopal right next to the famous Upper Lake, having total area of 445.21 ha. This green oasis amidst the city of lakes is a shining beacon in the field of conservation and is an ideal example of eco-restoration. A real treasure trove of nature and wildlife. The aviaries of Van Vihar are a special abode for more than two hundred species of migratory as well as resident birds which attract a lot of Birders throughout the year. While the Big Cats are a big attraction for the visitors and free ranging herbivores like Spotted deers, Sambars, and Blue bulls enthral them with their presence in the nearby fields. Wild Boars and Peafowls are a common sight.

Van Vihar has the unique distinction of being an amalgamation of National Park, Zoological garden, Rescue centre and Conservation Breeding Centre. It is the only place in Central India were the Rescue Centre harbors number of Lions and Tigers rescued from the circuses, Sloth Bears rescued from the Madaries and abandoned / distressed animals like Tigers, Panthers and Bears from the wild. Van Vihar is also been designated as a coordinating zoo for Conservation Breeding of Royal Bengal Tiger and participating zoo for Asiatic Lion. It is also a Conservation Breeding Centre of Hard Ground Barasingha and two species of Gyps Vultures. Van Vihar has proved to be an excellent example of ecorestoration of a degraded area and showcases terrestrial and fresh water ecosystems in present times. Van Vihar has become a 'most saught' destination in the tourism map of Bhopal.

The Vulture Breeding Centre welcomed Long-billed and white backed hatchlings while the Hard Ground Barasingha added new fawns to the family. The efforts in Tiger Breeding are in process.

The Bear Rescue facility, looked after by Wildlife S.O.S. while the Vulture Conservation Breeding Centre, looked after by BNHS, took care successfully of the resident Bears and Vultures respectively with Van Vihar presenting a good example of administrative coordination.

During the year top priority was given to the maintenance of infrastructure and significant up-gradation of the hospital complex along with health care of the animals and following the management and veterinary schedules. Entrance gate no. 2 motified with modern work. The Zoo was appreciated by VIPs during their visit and the number of visitors saw a size to Six lakhs sixteen thousand eight hundred and four (6,16,804) this year as against five lakhs sixty three thousand six hundred and seventy seven (5,63,677), an increase approximately about 9% in all.

Another year of effective biodiversity conservation, zoo management and education passed by. The Van Vihar awareness programme was given an uplift by conducting a lot of education and awareness programmes, including celebration of state wildlife week Sparrow Day, World Wildlife Day, Van Vihar foundation day, by conducting birding camps, walk- in workshops and a special workshop on Wildlife Conservation with the help of WWF.

Van Vihar took up a difficult task of transporting Badhav Tiger and Machmachi Tigress from Bandhavgarh to Van Vihar. We have also kept 6 Sulcata Turtles of African origin in captivity, who were seized and handed over by police to VVNP for further care.

The Zoo management strives tirelessly with full commitment as a team towards maintenance of the highest levels of cleanliness, services to tourists, health management and upkeep of animals, captive or free ranging.

Van Vihar has again proved the best destination in Bhopal by visitors but also a centre for environmental education, scientific health management of big cats, biodiversity conservation and an animal and people is friendly zoo.

I would like the extend my special gratitude Shri U. Prakasham P.C.C.F and C.W.L.W. MP, Shri Shahbaz Ahmed ex P.C.C.F and C.W.L.W.M.P, and Smt Sameeta Rajora the then Director V.V.N.P.for the valuable guidance and support. I also acknowledge the support and contribution of the Assistant Director Shri Ashok Kumar Jain, Dr. Atul Gupta, Veterinary Officer VVNP in particular and the staff for their hard work and dedication in the betterment of Van Vihar.

With prayers for sustained betterment of Van Vihar National Park - Zoo.

Dr. S.P. Tiwari, IFS(2000) CCF and Director Van Vihar National Park - Zoo Bhopal, M.P.

#### 2. HISTORY OF THE ZOO

About three and a half decades ago, where Van Vihar is located today, major portion of the area was under the control of Revenue Department whereas a few portions were personal properties of private agricultural land owners of Prempura, Dharampuri and Amkheda villages. The entire area was also prone to severe encroachments. In this serene and beautiful location on the bank of the Bhopal Upper Lake, a number of illegal stone quarries were also operational, and the area was under constant threat of being seized by many commercial organizations. A review of the above problems led to the realization of the importance of the conservation and the protection of the wild flora- fauna as well as of land. In order to achieve in-situ and ex-situ conservation of the wild flora and fauna, it was decided to provide a legal umbrella to this area under the Wildlife (protection) Act, 1972. A committee of experts was constituted to decide the modalities for constitution of this area as a Protected Area. An area of 445.21 hectares was notified as Van Vihar National Park in the year 1983 as per the committee's recommendations. Out of the 445.21 hectares of land, 388.89 hectares was revenue land and rest of the 56.92 hectare belonged to the villagers of Prempura, Dharampuri, and Amkheda. A compensation of Rs. 23.52 lakhs was paid to the villagers to acquire 56.92 hectares of private holdings. After the constitution of National Park, this acquired area was secured over a period of time, with stonewall and chain link fence from all sides. Efforts of protection and habitat improvement measures were taken which resulted in its enrichment in a very short period of time. The barren area of 445.21 hectare, under strict vigil and protection transformed into an island of a mosaic of different types of vegetation. Van Vihar today is a classic example of clothing a denuded land with woody green fabric within a span of three and a half decades. It is a typical amalgamation of in-situ and ex-situ conservation activities for wild fauna. To cover both the facets of conservation, the Central Zoo Authority further empowered this area and recognized it as a medium sized Zoo on 24.11.94.

Van Vihar National Park and Zoo has emerged as a symbol of conservation and an ideal example of eco-restoration. It is an amazing world of winged creatures, free ranging ungulates and captive carnivores in the midst of greenery. It is listed as a 'must see' in the tourist destinations of Bhopal Town. The characteristic mosaic of wet riparian stretch, plains, grasslands, shrubby vegetation, water pools, rugged slopes, mixed bamboo forest, grass covered plateau and patches of mixed plantations enriches the floral and faunal diversity of the area. This oasis of vegetation plays a vital role as carbon sink for the environmental health of the city of lakes. It is the part of the catchment of Upper Lake that relatively contributes to silt and pollution free water in the reservoir.

Van Vihar has the unique distinction of being an amalgamation of National Park, Zoological garden, Rescue centre and Conservation Breeding Centre. It is the only place in Central India were the Rescue Centre harbors number of Lions and Tigers rescued from the circuses, Sloth Bears rescued from the Madaries and abandoned / distressed animals like Tigers, Panthers and Bears from the wild. Van Vihar is also been designated as a coordinating zoo for Conservation Breeding of Royal Bengal Tiger and participating zoo for Asiatic Lion. It is also a Conservation Breeding Centre of Hard Ground Barasingha and two species of Gyps Vultures.

Under strict protection and vigil, Mother Nature has showered its blessings in the last three and half decades which once denuded land is now covered with vegetation. The main species found here include Bel (<u>Aegle marmelos</u>), Amaltas (<u>Cassia fistula</u>), Babul (<u>Acacia nilotica</u>), Reunjha (<u>Acacia leucophloea</u>), Doodhi (<u>Wrightia tinctoria</u>), Landia (<u>Lagerstroemia parviflora</u>), Saja (<u>Terminalia tomentosa</u>), Amla (<u>Emblica officinalis</u>) and Tendu (<u>Diospyros melanoxylon</u>). In the closed areas of fodder farm and plantations, different palatable grass species like <u>Chrysopogon fulvus</u>, <u>Themeda triendra</u>, <u>Heteropogan contortus</u>, <u>Dicanthium annulatum</u>, <u>Chloris dolichostachia</u> etc, are found. Hilly portion of the park, once heavily infested with Lantana, lower plains with <u>Parthenium</u> and <u>Cassia tora</u> weeds are now controlled of these weeds due to constant interventions and habitat improvement efforts over the years.

Van Vihar has a wide range of herbivores and carnivores. While the herbivores are free ranging, the carnivores have been housed in large enclosures under captive but natural conditions. The near natural conditions provided in big enclosures make it an animal friendly Zoo. It always has an element of surprise for the visitors. It offers them many thrills of a jungle experience, a sudden sighting of tawny Tiger behind golden bamboo clumps, roar of Lions, a queer laugh of a Hyaena, alarm call of a Sambar, rutting call of a Chital, fluttering of colorful tiny butterflies and melodious chirping of birds. The migratory birds add to the scenic beauty of the natural and open aviaries in the winters.

The carnivores include Tigers, Lions, Panthers, Hyaenas, Jackals and Sloth bears. The herbivores include Sambar, Spotted deers, Bluebulls, Black bucks, Chousinghas, Common Langurs, Wild boars, Porcupines, Hares etc. In addition to this the park also showcases Ghariyal, Crocodiles, Turtles, Star tortoise and Snakes.

#### 3. VISION

- I. To become a scientific institution engaged in animal welfare and conservation of wildlife.
- II. To be known as a centre of knowledge on effective techniques for maintaining good health and upkeep of resident animals and an example of natural ambience and pollution free environment.

#### 4. MISSION

- I. Compliment the national efforts in conservation of wildlife through planned coordinated conservation breeding of endangered wild animal species of Central India.
- II. Develop amongst visitors, empathy for wild animals and motivate them to support the cause of conservation of wildlife.
- III. Develop amongst the visitors an understanding about the ecological linkages with the life supporting processes of nature and the need for keeping them intact by adopting sustainable life styles and living in harmony with nature.
- IV. Enhancing the role of zoos in conservation of wildlife through collaborative research aiming at attaining management skills for in-situ population and carrying out advocacy for protecting the wild animals and their natural habitat.
- V. To act as Rescue Centre by receiving and keeping orphaned, seized, rescued, injured wild animals subject to availability of appropriate housing for the same.

#### 5. OBJECTIVE

Van Vihar was set up with the following broad objectives in view:

- I. To manage in captivity the wildlife of central India along with animals from other bio geographic regions of India in near-natural simulated habitat conditions to serve as a repository of genes and in-case of further expansion of the area of the zoo some rare exotic species can also be displayed in that area.
- II. To pursue conservation breeding of some rare and endangered species like- Tiger, Asiatic lion, Gyps vultures and Hard ground Barasingha etc.
- III. To provide the visitors, through a well-designed 'Interpretation programme' an opportunity to enjoy, experience, understand and appreciate nature and the need to conserve wildlife.
- IV. To carry out appropriate studies to strengthen both in-situ and ex-situ wildlife management.

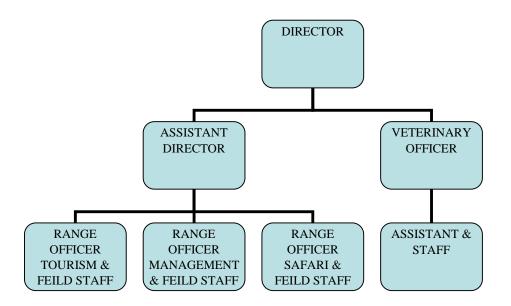
V. To serve as rescue center in Madhya Pradesh for orphaned, weak, diseased, injured and aged animals found unfit for release in the wild as well as those rescued from traditional animal performers and Circuses.

#### 6. ABOUT US

S.No.	Particulars	Information
Basic I	nformation about the Zoo	
1	Name of the Zoo	Van Vihar National Park - Zoo, Bhopal
2	Year of Establishment	24.11.1994
3	Address of the Zoo	Van Vihar National Park - Zoo, Bhadbhada Road, Bhopal, M.P 462003
4	State	Madhya Pradesh
5	Telephone Number	0755-2674278
6	Fax Number	0755-2674278
7	E-mail address	dirvvnp.bpl@mp.gov.in
8	Website	mpforest.gov.in www.vanviharnationalpark.org
9	Distance from nearest	
	Airport:	about 17 km.
	Railway Station:	about 7 km.
	Bus Stand:	about 8 km.
10	Recognition Valid upto (Date)	30 September 2019
11	Category of zoo	Small
12	Area (in Hectares)	445.21 hectares
13	Number of Visitors (Financial Year)	Adult and Children : - 6,16,804 (No separate record is kept children under five get free entry, for the rest, rates are uniform) Total Indian : 6,16,804
		Total Foreigners : - Nil (Not recorded as the entry rates are uniform)
		Total Visitors: 6,16,804

S.No.	Particulars	Information
14	Visitors' Facilities Available in Zoo	<ul> <li>Visitors have to walk five km. from Ramu Gate no.1 near Boat Club up to Cheeku Gate no. 2 near Jehanuma Retreat (Hotel) to enjoy nature and view wild animals. A number of facilities are provided for the visitors to make their VVNP experience comfortable and memorable. Some of the facilities are: <ol> <li>Drinking water stations at six places (Ramu Gate, Safari office, Lion enclosures, Snake Park, Cheeku gate and Vihar Vithika)</li> <li>Toilet at four places (Ramu Gate, Lion enclosures, Snake Park and Vihar Vithika)</li> <li>Sit-outs at <i>Chhatghar, Vihar Vithika and at</i> many places along the road.</li> <li>Guiding staff at all enclosures.</li> <li>Battery Operated Vehicle/ Golf Cart services for the tourists at prescribed rates.</li> <li>Cafeteria at Cheeku gate and two food kiosks in the tourist zone.</li> </ol> </li> <li>VII. Bicycles services for the visitors on rental basis on both entrance gates.</li> <li>VIII. Regular bird watching camps.</li> <li>JX. Jungle Safari service to view herbivores at prescribed rates.</li> <li>X. Walk-in educational workshops from time to time.</li> </ul>
15	Weekly Closure Day of the Zoo	Friday
	Management Pers	onnel of the zoo
16	Name with designation of the Officer in- charge Name of the Veterinary Officer Name of the Curator Name of the Biologist Name of the Education Officer Name of the Compounder/ Lab Assistant	Dr. S.P. Tiwari, IFS (2001) Dr. Atul Gupta, Range Officer Safari - - -
	Owner / Operat	
17	Name of the Operator	Capt. Anil Khare (IFS)
18 19	Address of the Operator Contact details/Phone number of	Secretariat, MP Govt. Vallabh Bhawan Bhopal 0755-2579747
20	Operator E-mail address of Operator	secyforest@mp.gov.in
20		ocoyloreot@mp.gov.m

#### 7. ORGANIZATIONAL CHART



#### 8. HUMAN RESOURCES

#### Manpower of the Zoo\*

SI.No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Director	1	Dr. S.P.Tiwari
2	Assistant Director	1	Shri Ashok Kumar Jain
3	Veterinary Officer	1	Dr. Atul Gupta
4	Range Officer	6	Shri S.S. Anwar
5			Shri S.K.Parashar
6			Shri G.S. Nagar
7			Shri Ratiram Partey
8	Deputy Ranger	3	Shri L.N.Keer
9	Superintendent	1	-
10	Stenographer	1	-
11	Assistant grade-I	1	Smt. Nikhat Afroz
12	Accountant	1	-
13	Assistant grade-II	2	Shri Satendra Singh
14	Cinema Operator	1	Shri Rajesh Dixit
15	Draftsman	1	Smt Reena Bareliya
16	Assistant Grade-III	4	Shri Vasudev Sharma
17			Shri Kumel Abbas
18			Shri K.D. Panjwani
19			Shri Rajendra Jatav
20	Forester	10	Smt. Reena Gokhe
21			Shri S.D. Mishra
22			Shri Gopal Kewat
23			Shri Faiyaz Khan
24			Ku. Deepty Tantuvay
25			Shri N.C. Mishra

26			Shri Ajay Yadav
27	Forest gaurd	43	Smt. Purnima Shrivastava Khare
28			Shri Dinesh Tiwari
29	-		Shri Manoj Nahariya
30	-		Shri Devendra Batham
31	-		Shri Dilip Batham
32	-		Smt. Sushma Lypton
33	-		Shri Ashok Kumar Mehra
34	-		Shri Avanish Tripathi
35	-		Shri Vinod Jatav
36	-		Shri Roopkumar Mehar
37	-		Shri Rajesh Sahu
38	-		Shri Devendra Bardele
39	-		Shri Kamlesh Chaturvedi
40			Shri Dharmendra Rajput
40	-		Shri Sachin Parsai
41	-		Shri Jasman Raghuvanshi
42			Shri Santosh Rajput
43			Shri Laxminidhi Puri
44 45	4		Shri Hariprasad Patel
45	-		Shri Sharmanand Gaire
40	-		Shri Ashok Kumar Dhote
47	-		Shri Suresh Kumar Patel
40	-		
49 50	-		Shri Narendra Meholiya Shri Anil Gavhade
	-		
51	-		Shri Surendra Gavhade
52	-		Shri Sachin Sanodiya
53	-		Shri Trilok Singh Mali
54	-		Shri Gautam Lodhi
55	-		Shri Jasvant Kumar Singh
56	-		Shri vinod Pal
57	-		Shri Naval Kushwaha
58	-		Smt Swati Namdev
59			Shri Bhagwan Singh Thakur
60	-		Shri Sanjay Singh
61			Shri Rahul Singh
62	Driver	2	Shri Bijor Singh Uikey
63	-		Shri Prem Shankar Namdeo
64	Peon	2	Shri Sriram Kachhi
65	Daftari	1	Mohd. Azeem
66	Animal keeper	64	Shri Magaliya Tahir
67			Shri Babulal Jaiswal
68			Shri Hariprasad Chavadiya
69			Shri Pangla Tahir
70			Shri Ramphool Meena
71			Shri Omprakash Uekey
72			Shri Dinesh Irpache
73			Shri Ramesh Dhuliya
74			Shri Narmada Prasad Pal
75	]		Shri Brijmohan Patel
76	]		Shri Narmada Prasad
77	1		Shri Govind Joshi
78	1		Shri Kishan Bhandari
79	1		Shri Ramanad Meena
80	1		Shri Radheshyam Joshi
81	1		Shri Daulatram Namdev
	1	1	

82	Shri Kalu Singh Jamra
83	Shri Devraj Tiwari
84	Shri Veerbhan Rai
85	Shri Revaram Pal
86	Shri Kailash Yadav
87	Shri Ramesh Chand Nagar
88	Shri Suryamani Shukla
89	Shri Rajkumar Sahu
90	Shri Narayan Jatav
91	Shri Shiv Kumar
92	Shri Laxman Singh Uikey
93	Shri Shiv Avatar Dewedi
94	Shri Arun Gupta
95	Shri Ramswarup Nagar
96	Shri Gajraj Singh Uikey
97	Shri Kunjilal yadav
98	Shri Iqbal Qureshi
99	Shri Maneesh Yadav
100	Shri Bhagvan Singh Thakur
101	Shri Sanjeev Singh
102	Shri Ramsevak Vishwakarma
103	Shri Dinesh Singh
104	Shri Haripal Singh Vist
105	Smt Kala Bai
106	Shri Pradeep Nagar
107	Mohd. Ikrar Qureshi
108	Shri Gopal Singh
109	Shri Kailash Rathore
110	Shri Dauaram
111	Shri Omprakash Marshkole
112	Shri Jog Singh
113	Shri Munna Lal Yadav
114	Shri Pavan Kumar Giri
115	Shri Jeevanlal Yadav
116	Shri Subhash Dhoke
117	Shri Chokhelal Yadav
118	Shri Amar Singh
119	Shri Veerendra Pawar
120	Smt Saroj Meena
121	Shri Khuman Singh
122	Shri Peetambar Datta
123	Shri Shambhulal Parnam
124	Shri Dinesh Sen
125	Shri Toliya Tahir
126	Shri Dinesh Patel

#### 9. CAPACITY BUILDING OF ZOO PERSONNEL

SI.	Name and	Subject matter of Training	Period of	Name of the Institution
No.	designation		Training	where the Training
	of the zoo			attended
	personnel			
1	Shri Jasman	Zoo Keepers Training	18-22	M.C. Zoological Park,
	Singh		March 2019	(Chhatbir Zoo) Punjab
	Raghuvanshi,			
	Forest Gaurd			
2	Shri Naval	Advancing Bear care	03-06	Agra SOS
	Prasad Kushwah	workshop India -2018	Dec 2018	
	Forest Guard			
3	Shri Sachin	Zoo Keepers Training	4-10 March	Zoological Garden
	Parsai		2019	Surat , Gujrat
	Forest Guard			

#### 10. ZOO ADVISORY COMMITTEE -

- a. Date of constitution Proposal sent for constitution
- b. Members -
- c. Dates on which Meetings held during the year-

#### 11. HEALTH ADVISORY COMMITTEE-

- a. Date of constitution -11.10.2017
- b. Members Director Van Vihar, Assistant Director, Van Vihar, Dr. Atul Gupta, Veterinary Officer, Van Vihar, Special invitees: Dr. Kajal Jadhav, Assistant Professor. School of Wildlife Forensic and Health, Jabalpur, Dr. S.K.Tumadiya, Assistant Veterinary Surgeon State Veterinary Hospital Bhopal Dr. Rashmi Gokhle, Veterinary Officer Wildlife SOS Van Vihar Bhopal, Range Officer Safari, Range Officer Management, Range Officer Tourism and concerned animal keepers.
- c. Dates on which Meetings held during the year 20.5.18, 29.10.18, 04.02.19

#### 12. STATEMENT OF INCOME AND EXPENDITURE OF THE ZOO

The financial statement provided to **VVNP** can be subdivided into following categories for year 2018-19.

S. No.	NAME OF PLAN	ALLOTMENT	EXPENDITURE
1.	10-2046 NON PLAN (2899)	1,79,82,280	5,61,25,994 (includes exp. from central server)
2	10-4406 PLAN (7882- 12 wages)	20,00,000	16,35,707
3.	10-2046 PLAN 3730- Central Assistance	31,84,000	20,95,872
4.	PARK DEVELOPMENT FUND	4,81,26,090	4,12,88,037
5	2723- Administration reinforcement	25,339	25,339

#### 13. DAILY FEED SCHEDULE OF ANIMALS

S.N	Species	Feed Item	Quantity		Day of
0			Summer	Winter	Fasting
1	Tiger	Buffalo meat	7-9 kg/day	8-10 Kg/day	Friday
2	Lion	Buffalo meat	6-8 kg/day	6-8 kg/day	Friday
3	Leopard	Buffalo meat	3-3.5 kg/day	3.5-4kg/day	Friday
4	Hyena	Buffalo meat	2-3kg/day	2-3kg/day	Friday
5	Jackal	Buffalo meat	1.5-2kg/day	1.5-2kg/day	Friday
6	Sloth Bear	Morning			-
		Corn flour	75 gm	75 gm	
		Sorgum flour	75 gm	75 gm	
		Barley flour	75 gm	75 gm	
		Wheat flour	150 gm	150 gm	
		Bajara flour	160 gm	160 gm	
		Salt	10 gm	10 gm	
		Egg boiled	01 No.	01 No.	
		Honey	50 gm	50 gm	
		Dates	100 gm	100 gm	
		Vegetables	150 gm	150 gm	
		Afternoon			-
		Fruits (seasonal)	01 kg	01 kg	
		Evening			-
		Daliya	350 gm cooked in 07 Its water	350 gm cooked in 07 lts water	
		Milk	01 Lts	01 Lts	
		Banana	02 no		
7	Bison			02 no	
7		Green grass Sudana	Ad-lib 03 kg	Ad-lib 03 kg	
			Ad-lib	Ad-lib	
		Dry fodder Salt licks			
		Sail IICKS	Always Available	Jaggery-01 kg	
				Always Available	

8	Spotted	Green grass	Ad-lib	Ad-lib
	Deer	Sudana	400 gm	400 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
9	Sambar	Green grass	Ad-lib	Ad-lib
		Sudana	750 gm	750 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
10	Nilgai	Green grass	Ad-lib	Ad-lib
		Sudana	750 gm	750 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
11	Blackbuck	Green grass	Ad-lib	Ad-lib
		Sudana	300 gm	300 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
12	Chowsingha	Green grass	Ad-lib	Ad-lib
		Sudana	150 gm	150 gm
		Dry fodder	Ad-lib	Ad-lib
		Salt licks	Always Available	Always Available
13	Crocodile and Gharihal	Buffalo meat	15 kg/ day	15 kg/ day
15	Turtle	Buffalo meat	03 kg/alternate day for all	03 kg/alternate day for all
16	Star Tortoise	Ladyfinger+Tomato +Cucumber	100-150 gm/day	100-150 gm/day -

#### 14. VACCINATION SCHEDULE OF ANIMALS

S.No	Species	Disease vaccinated for	Name of Vaccine and dosage/ quantity used	Perio dicity	Rema rks
1	Tiger	Feline Rhinotracheitis+Calici+Panl eukopenia	Fel-o-vax(killed virus) 01 ml	Yearly	
2	Leopard	Feline Rhinotracheitis+Calici+Panl eukopenia	Fel-o-vax(killed virus) 01 ml	Yearly	
3	Lion	Feline Rhinotracheitis+Calici+Panl eukopenia	Fel-o-vax(killed virus) 01 ml	Yearly	
4	Hyena	Rabies	Raksharab 01 ml	Yearly	
		canine distemper, canine adenovirus, canine parvo, canine parainfluenza canine leptospirosis	Nobivac DHPPI+Lepto O1 dose	Yearly	
5	Jackal	Rabies	Raksharab 01 ml	Yearly	
		canine distemper, canine adenovirus, canine parvo, canine parainfluenza canine leptospirosis	Nobivac DHPPI+Lepto O1 dose	Yearly	
6	Sloth	Rabies	Defencer	Yearly	
	Bear	canine distemper, canine adenovirus, canine parvo, canine parainfluenza, canine leptospirosis	Vanguard plus 5L4	Yearly	

#### 15. DE-WORMING SCHEDULE OF ANIMALS

S.No	Species	Drug used	Month
1	Tiger	Praziquintal, Ivermectin, Fenbendazole	May, August, December, March
2	Leopard	Praziquintal, Ivermectin, Fenbendazole	May, August, December, March
3	Lion	Praziquintal, Ivermectin, Fenbendazole	May, August, December, March
4	Hyena	Praziquintal, Ivermectin, Fenbendazole	May, August, December, March

5	Jackal	Praziquintal, Ivermectin, Fenbendazole	May, August, December, March
6	Sloth Bear	Praziquintal, Ivermectin Fenbendazole	July, Nov, Jan. March
7	Bison	Albendazole, Fenbendazole	May, August, December, March

#### **16. DISINFECTION SCHEDULE**

S.no	Species	Type of enclosure	Disinfectant used	Frequency of
			and method	disinfection
1	Tiger	Housing	Fumigation	Monthly
2	Tiger	Housing	Bleaching powder	Monthly
3	Tiger	Housing	Lyzol	Daily
4	Tiger	Water hole in enclosure	lime	forthnight
5	Lion	Housing	Fumigation	Monthly
6	Lion	Housing	Bleaching powder	Monthly
7	Lion	Housing	Lyzol	Daily
8	Lion	Water hole in enclosure	Lime	fortnight
9	Leopard	Housing	Fumigation	Monthly
10	Leopard	Housing	Bleaching powder	Monthly
11	Leopard	Housing	Lyzol	Daily
12	Leopard	Water hole in enclosure	Lime	fortnight
13	Hyena	Housing	Fumigation	Monthly
14	Hyena	Housing	Bleaching powder	Monthly
15	Hyena	Housing	Lyzol	Daily
16	Hyena	Water hole in enclosure	Lime	fortnight
17	Sloth Bear	Housing	Fumigation	Monthly
18	Sloth Bear	Housing	Bleaching powder	Monthly
19	Sloth Bear	Housing	Lyzol	Daily
20	Sloth Bear	Water hole in enclosure	lime	forthnight

SI.No.	Name	Designation	Date of	Findings of
			Health	Health Check
			Check up	up
1	Shri Santosh Parashar	Range Officer Safari	22.5.18	Fit
2	Shri Narendra Miholiya	Forest Gaurd	22.5.18	Fit
3	Shri Ashok Mehra	Forest Gaurd	22.5.18	Fit
4	Shri Avanish Tripathi	Forest Gaurd	22.5.18	Fit
5	Shri Hari Prasad Patel	Forest Gaurd	22.5.18	Fit
6	Shri Jog Singh	Sthai Karmi	22.5.18	Fit
7	Shri Narmada Prasad Pal	Sthai Karmi	22.5.18	Fit
8	Shri Bhagwan Singh	Sthai Karmi	22.5.18	Fit
9	Shri Omprakash Uikey	Sthai Karmi	22.5.18	Fit
10	Shri Mangaliya Tahir	Sthai Karmi	22.5.18	Fit
11	Shri Suryamani Shukla	Sthai Karmi	22.5.18	Fit
12	Shri Sadal Ansari		22.5.18	Fit
13	Ravi Chavadiya		22.5.18	Fit
14	Shri Jasman Singh	Forest Gaurd	23.5.18	Fit
	Raghuvanshi			
15	Shri Sharmanand Gaire	Forest Gaurd	23.5.18	Fit
16	Shri Suresh Patel	Forest Gaurd	23.5.18	Fit
17	Shri Dilip Batham	Forest Gaurd	23.5.18	Fit
18	Shri Sachin Parsai	Forest Gaurd	23.5.18	Fit
19	Shri Naval Prasad	Forest Gaurd	23.5.18	Fit
20	Shri Kalu Singh Jamra	Sthai Karmi	23.5.18	Fit
21	Shri Dinesh Irpache	Sthai Karmi	23.5.18	Fit
22	Shri Laxman Singh Uikey	Sthai Karmi	23.5.18	Fit
23	Shri Gajraj Singh Uikey	Sthai Karmi	23.5.18	Fit
22	Shri Hariprasad	Sthai Karmi Sweeper	23.5.18	Fit
23	Shri Gopal Rathore		23.5.18	Fit
24	Shri Santosh Parochia		23.5.18	Fit
25	Shri Sadal Ansari		23.5.18	Fit
26	Shri Pangla Tahir	Sthai Karmi	23.5.18	Fit

#### 17. HEALTH CHECK-UP OF EMPLOYEES FOR ZOONOTIC DISEASES

#### 18. DEVELOPMENT WORKS CARRIED OUT IN THE ZOO DURING THE YEAR

 Maintenance works – Special attention was given to the following works:- Weed eradication, road maintenance, soil water conservation work, up gradation of entrance gate no. 2 cleaning and maintenance of housings and enclosures as per schedule, sustained water facilities, fire protection works, boundary wall reinforcement, tourist services and facilities etc.



#### **19. EDUCATION AND AWARENESS PROGRAMMES DURING THE YEAR**

I. Van Vihar is actively working with WWF, EPCO, MPFTS Jungle Group and Bhopal Birds for creating awareness about eco systems and wildlife. Mobile awareness exhibition on vultures. New year resolution campaign started to take oath for saving wildlife. Pangolin campaign organised with MP Forest Tiger Foundation. During State Wildlife Week 2018. A new concept flown across Madhya Pradesh by organising 'Youth Sansad' to present and to discuss various wildlife issues befor experts like parliament. A new Bird Interpretation Center established on first day of State Wildlife Week. An Orientation Bada has been setup to provide ready information regarding rescuing, trapping and transporting of wild animals. Groups from schools, other educational centers and trainee officers are being given full information regarding VVNP. Tourists are offered with informative handouts and lapel pins depicting wildlife.

#### II. World Sparrow Day-

World Sparrow Day was celebrated on 20.03.2019 at Van Vihar with great enthusiasm. Distributed" bird feeders and wrist bands to visitors on the occasion. Jungle group actively has participated to propagate the messages among public to create awareness.



#### III- World environmental Day-

India is the global host of World Environment day 2018 which took place on 5<sup>th</sup> of June. Shri Shahbaz Ahmed the then PCCF wildlife & C.W.L.W. headed the occasion shri Dilip Kumar APCCF were also present. All officers and employees "took oath" to make Van Vihar free from plastic. Director Van Vihar Smt. Sameeta Rajora advised staff to "say no to single use plastic". They were given S.S bottle to use drinking water. All Employees wore green T shirt depicting "Say no to single use plastic adding colour and grace to occasion.



#### IV- State Wildlife Week -

A clutch of activities and competitions focusing on wildlife week held at Van Vihar National Park, Bhopal during state wildlife week since 1<sup>st</sup> of October to 7<sup>th</sup> of October. Object of competition was to create awareness towards forest and wildlife protection among students and people. The events are enumerated below:-

Date	Time	Categories & Events	Topics
1.10.18	10.30 AM	Wildlife week Inauguration	
सोमवार	10.30 AM - 12.30 PM	PAINTING COMPETITION	PAINTING COMPETITION
	10.007.007		(1) Students of Class I to IV Subject:- "Wild animals of Van Vihar" (2) Students of Class V to VIII
			Subject:- "Wild Herbivores and our forests" (3) Students of class IX to XII
			Subject:- "Places of Natural beauty " (4) College Student Subject:-Attractive natural scene" (5) Differently abled
			Subject:- "Wild animals of my choice"
	10.45 AM	Inauguration of the exhibition	Subject- "Plastic in the Wild"
2.10.18 मंगलवार	6.00 AM to 8.30 AM	Bird watching & Biodiversity camp	
	9.00 AM	Rangoli Competition (I to VIII)	Sub:- Butterflies of M.P.
	to 11.00 AM	Rangoli Competition (Open)	Sub:- Wild animals of M.P.
	7.00 AM to 1.00 PM	Photography workshop and	Theme -Van Vihar
	soft copy to be	competition	
	submitted up to 1.30	(For school and college students &	
3.10.18	PM on 02.10.2018 6.00 AM to	open category)	
बुधवार	8.30 AM	Bird watching & Biodiversity camp	
39411	10.30 AM	Teachers Workshop	Role of teachers in Wildlife Conservation
			Snake awareness
			Vulture awareness
			<ul> <li>Wild animals not to be kept as pets</li> </ul>
4.10.18 गुरूवार	6.00 AM to 8.30 AM	Bird watching & Biodiversity camp	
	10.00 AM onwards	Awareness generation through Creativity	<ul> <li>Butterfly making &amp; flower making</li> <li>Art out of Nature</li> </ul>
		Workshops	Clay modelling
			<ul> <li>Bookmark making</li> <li>Painting bees on stones</li> </ul>
	11.00 AM	Poster exhibition	
5.10.18	6.00 AM to 8.30 AM	Bird watching & Biodiversity	
शुक्रवार		camp	
3	11.30 AM	QUIZ COMPETITION	Semi final & finals- Class IX to XII
	9.00 AM	Palm Painting (Open)	Theme - Wildlife
		Mehndi Competition	Theme - Wildlife
6.10.18 शनिवार	6.00 AM to 8.30 AM	Bird watching & Biodiversity camp	
	12:00 PM – 5:00 PM	Youth Parliament	Wildlife Conservation

Date	Time	Categories & Events	Topics
7.10.18 रविवार	9:00 AM – 11:00 AM	Fancy Dress Competition	My favorite Wildlife
	11.00 AM – 12:00 PM	Photography exhibition	
	11.00 PM –1.00 PM	Prize distribution & Closing ceremony	

Glimpses of the State Wildlife Week 2018



Inauguration



Inauguration of Bird Interpretation Centre



Palm Painting competition



**Painting Competition** 



Rangoli competition



Menhdi competition



Yuva Sansad



Fancy Dress competition



Clay Modelling



**Poster Competition** 



**Teachers Workshop** 



Creativity workshop on Butterfly



Art out of Nature



**Quize Competition** 





**Prize Distribution** 

Wildlife Conservation Award

#### V- Bird Watching Camps -

Van Vihar is a paradise for birds, both resident and migratory. So far, about 205 bird species have been identified. A number of birds visit the lake adjoining Van Vihar in winter and fly back after winter ends. These include Painted storks, Woolly necked storks, King fisher, Red crested pochards, Shikra, Coots, Spot bills, Ibises spp. etc.



VI- Snake Rescue Workshop 18-19 December 2018 - State level two day workshop was organised in VVNP- Zoo to train forest officials on Snakes Rescue. Training inaugurated by Shri M.K. Sapra PCCF and HoFF M.P. Forest department. Occasion was graced by shri Sahbaz Ahmed P.C.C.F. (WL) and C.W.L.W., Shri Dilip Kumar A.P.C.C.F., Director Van Vihar National Park, Smt. Sameeta Rajora and well known "Snake Expert" Shri Jerry Martin founder of "The Jerry Martin project." Shri Jerry Martin trained all 53 forest officials of 16 forest circles to Rescue Snakes. This was pioneer occasion when such type of workshop organised on Rescue of Snakes.





# **20. IMPORTANT EVENTS AND HAPPENINGS-** Van Vihar was blessed by the visit of a number of stalwarts and dignitaries who not only praised the efforts of the management at Van Vihar, but also enjoyed a memorable experience. Some of their remarks are listed below with gratitude :-

- Justice Ranjan Gogoi (Supreme Court of India) visited on 15.4.18 -"Great work at preservation and protection. Excellent staff ably led by dedicated Director. Please keep up the good work.
- Justice Hemant Gupt visited on 15.4.18 Good Experience
- Mr. John Weavn PVS Evaluation Mission visited Van Vihar on 26.04.18 -A wonderful special well setup managed by excellent staff with great leadership, passion for face challenges in supporting wildlife in India. Its very exciting to see the vision for this park in centre of Bhopal too -Congratulations.
- Mr. Tiloshma Verma, Addl. Director WCCB visited on 06.09.18 The hospital is amagingly well provisioned and well kept. The two leopards are not only getting food, treatment but also the love and affection, required for recovery. Complements to the Director, Doctor and staff for the upkeep and dedication to the animals.
- Dr. M.K.Ranjit Singh, Member Wildlife Board visited on 26.09.18 It was a wonderful home coming for me to Van Vihar, very pleased to see it being maintained in its natural form, with minimal human imprint and impact. Do have it continues this way. one does not develop a national park, one consensus it, manages it, protects it. Attempts should be made to propagate the chousingha here, that unique Indian antilope who has no godfather. It develops best in this region of India. Also the very endangered Pangolin.
- Mr. A.K. Mishra (Former PS Law and Distt. Judge) Bhopal, visited on 03.11.18 - Truly we had a wonderful experience with animal in Van Vihar Bhopal, I am too happy to see the animals maintenance and the way they are being treated by the staff under the leadership of Mrs. Samita, Director, who has done a lot of improvement in the area to keep the home of animals in order. I witnessed a lot of cleanliness in cages where the animals are kept. All are healthy.

I am thankful to Mrs. Sameeta Director who made my visit to see the actual site of Van Vihar. Director has a very good administrative control over the entire staff. Wish her all success in centres ahead.

- Shri P.K. Choudhary (Rtd. IFS) Bhopal, visited on 12.12.18- One of my several visits this morning to the pride of Bhopal. Asst. Director, Mr. Jain, Director MS Rajora, and Vet Dr.Gupta are taking very good care of the nature that should belong to the picturesque place. New initiatives in the form of Bird Interpretation Centre and upgrading of the Vet Hospital are something unimaginable. Very welcoming development indeed. Congrats to the entire team.
- Shri Anthony DE SA, Chairman, RERA, visited Van Vihar on 04.03.19 I have been several times to Van Vihar and each visit is a new experience, a new revelation. One can never tire of this oasis of wildlife and nature, a jewel in a city, with urban life all around and yet invisible. The animal rescue work is particularly so encouraging. All the very best.
- Shri Anand Raju, A tourist from Mumbai visited Van Vihar on 23.03.19 Visit to Van Vihar Bhopal is a memorable, guards and staff well behaved, taken care of us. It was very interesting to see the animals well kept, look up by guard.

#### 21. SEASONAL SPECIAL ARRANGEMENTS FOR UPKEEP OF ANIMALS

#### I. Summer arrangements -

**For captive animals** - Bhopal experiences high temperatures in summer. Temperature reaches up to 47<sup>o</sup>C. To keep the housings and kraals comfortable for captive animals, Desert coolers are provided. The doors and windows are covered with 'Khus mats', which are watered periodically to ensure coolness. The kraals are covered on top with hessian cloth too. The water holes in the enclosures are covered with temporary sheds for keeping the water cool and providing shade to animals, when they take a dip to get relief from the scorching heat.

**For Free ranging animals** - Large number of herbivores reside inside the zoo area. During this period scarcity of natural fodder and water is felt. To mitigate this, artificially created water holes at a number of places are filled with drinking water and green fodder is placed at strategic places on daily basis. '*Sudana*' a nutrient supplement is also made available during the period for herbivores. Artificial shed arrangements are also made near the water holes.

#### Summer arrangements for captive and free ranging animals



Erected Shed

Filled Water Hole



Installed Coolers



Covered windows and doors with Khus



Raised Green Fodder



Collected Fodder

- **II. Winter arrangements -** Housing of captive animals are covered with curtains and at the peak period of winter heating facility in the housings is also provided. Special attention is given to the reptile housings for providing warmth during winter.
- III. Vulture App To sensitize people regarding dwindling population of vultures, the need for their conservation, and to be able to report sightings a vulture app was prepared and uploaded on Google play store in the name of 'Vultures of Madhya Pradesh'. This is the first app of its kind.

IV. Q.R.Code - To enable tourists to know about displayed captive animals in tourist zone, Display boards are enriched with Q.R. code which provide ready information about animals.



**22. RESEARCH WORK CARRIED OUT AND PUBLICATION-** In V V N P this year research work on health status of free range Indian Jackals were taken up with collaboration of school of wildlife forensic and health Jabalpur. Blood sample of 19 Jackals were collected for further examination. Project is still continue.

#### 23. CONSERVATION BREEDING PROGRAMME OF THE ZOO

Van Vihar is a coordinating Zoo for Royal Bengal Tiger and Vulture Breeding and a participating zoo for Lion Breeding. Van Vihar also has a Breeding Centre for Hard Ground Barasingha (Swamp deer).

Van Vihar has a Tiger Breeding Plan and efforts for Tiger Breeding are under way. The founder population at present has three males (Wild caught) and six females (four zoo bred and two wild caught).

The Vultures have successfully bred in the last three years. The centre has a founder population of 51 Vultures of two Gyps species (34 Long-billed vultures and 17 White-backed vultures). The vultures at the Vulture Conservation Breeding Centre attempted breeding for the first time during the breeding season 2016-17 a total of five nests were constructed, three during 2016-17 two during 2017-18 and 3 during 2018-19 in all, three eggs were laid, two during 2016-17 (one of each species) and four (all long billed) during 2017-18. Two fledglings are successfully carrying on since 2017. Out of the four eggs of 2017-18, three eggs hatched and one was infertile, one of the three hatched birds was hand reared successfully. During 2018-19 three eggs were hatched.The efforts at VCBC are under way persistently by BNHS in coordination with Van Vihar.

The Hard Ground Swamp Deer, also known as the Barasingha were translocated from the Kanha Tiger Reserve to Van Vihar in January, 2015. They were 7 in numbers (3 males and 4 females). They started breeding successfully in the breeding centre in 2016 when two fawns were born. In 2017 three more fawns were added to this number making the population 12. During 2018 three more fawns were borned to make population 15 but one of old Barasinga died. At present their no. is 14. The Barasingas have adapted well at Van Vihar and are breeding successfully.

#### 24. ANIMAL ACQUISITION / TRANSFER / EXCHANGE DURING THE YEAR - NII

S.	Date of	Species with	Received from	Date of	Action t	aken
n.	Rescue	number of		Submissio	Date and Place of	Reasons for
		animals		n of Report	rehabilitation in their	housing in the
		rescued with		to the	habitat	zoo, if not
		their sex		CWLW /		released in their
		(M:F:U:T)		CZA		habitat
1	06.04.18	Panther (1) M	Ahmadpur	06.04.18	13.04.18	-
			Vidisha (T)		R.F.556 Ratapani	
			Division		Sanctuary,	
					Obedullaganj (T)	
					Division	
2	04.06.18	Tiger (1) M	Bandhavgarh	07.06.18	-	Man- eater
3	09.06.18	Panther (1) M	Rawatpura	09.06.18	-	After examination
		(Lucky)	Bairasia (T)			found not fit for
			Division			release to the wild.
4	04.06.18	Panther (1) M	Badvani (T)	07.06.18	-	found not fit for
		(Madhav)	Division			release to the wild.
5	15.07.18	Panther (1) M	Rajgarh (T)	16.07.18	16.07.18	-
			Division		R.F.556 Beat Delawadi	
					Obedullaganj (T)	
					Division	
6	24.10.18	Tiger (1) F	Bandhavgarh	03.11.18	-	Man- eater
			Tiger Reserve			

#### 25. RESCUE AND REHABILITATION OF WILD ANIMALS CARRIED OUT BY THE ZOO

#### 26. ANNUAL INVENTORY OF ANIMALS

#### Inventory Report for the Year : 2018-19

#### **Endangered Species\***

S. No	Animal Name	Scientific name	Ope	ning S	Stock a	s on		Births	6	Aco	quisit	ion	C	)ispo	sal	I	Death	ו	CI	osing	Stock as	s on
			М	F	U	Т	М	F	U	М	F	U	М	F	U	М	F	U	М	F	U	Т
1	Antelope four horned Chowsinga	Tetraceros quadricornis	3	2	0	5	1	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6
2	Bear sloth	Melursus ursinus	16	12	0	28	0	0	0	0	0	0	0	0	0	3	1	0	13	11	0	24
3	Black buck- Krishna Mrig	Antilope cervicapra	2	3	1	6	0	0	0	0	0	0	0	0	0	0	0	0	2	3	1	6
4	Deer Swamp Barasinga	Cervus duvauceli branderi	3	4	5	12	0	0	3	0	0	0	0	0	0	0	1	0	3	3	8	14
5	Indian Bioson- Gaur	Bos gaurus	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
6	Chinkara- Indian Gazelle	Gazelle gazelle bennetti	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7	Jackal	Canis aureus	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
8	Leopard / Panther	Panthera pardus	8	4	0	12	0	0	0	2	0	0	0	0	0	2	1	0	8	3	0	11
9	Lion Indian	Panthera leo persica	3	3	0	6	0	0	0	0	0	0	0	0	0	0	2	0	3	1	0	4
10	Tiger Bengal	Panthera tigris tigris	2	5	0	7	0	0	0	1	1	0	0	0	0	0	0	0	3	6	0	9
11	Tiger Bengal ( White)	Panthera tigris tigris	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12	Crocodile Long Snouted- Ghariyal	Gavialis gengeticus	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	1	2	0	3
13	Crocodile marsh- (Mugger)	Crocodylus palustris	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12
14	Turtle Fresh Water Indian soft shelled	Lissemys punctata punctata	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24
	Total		41	37	42	120	1	0	3	3	3	0	0	0	0	5	5	0	40	35	45	120

\*Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

#### Part – B

#### Other than Endangered Species

S.N	Animal	Scientific	Ope	ning S	stock a	is on	Birt	hs		Acc	quisiti	on	Dis	posa		Dea	ath		Clos	ing St	ock as	on
0.	Name	name																				
			М	F	U	Т	М	F	U	М	F	U	Μ	F	U	М	F	U	М	F	U	Т
15	Hyaena Stripped	Hyaena hyaena	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	2
16	Deer Sambhar	Rusa unicolor	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
17	* Deer spotted (Chital)	Axis axis	1	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
18	Tortoise Indian Star	Geochelone elegans	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6	6
	Total		3	5	8	16	0	0	0	0	0	0	0	0	0	2	0	2	1	5	6	12
	G. Total		44	42	50	136	1	0	3	3	3	0	0	0	0	7	5	2	41	40	51	132

#### 27. MORTALITY OF ANIMALS

SI.No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post- mortem report
1	Sloth Bear	Melursus ursinus	М	26.04.18	Respiratory and cardiac arrest due to senility
2	Leopard (Panther)	Panthera pardus	F	20.05.18	Hepato-renal dysfunction leading to toximia
3	Leopard (Panther)	Panthera pardus	М	03.06.18	Multiple organ failure due to senility
4	Lion	Panthera leo persica	F	13.07.18	Multiple organ failure due to senility
5	Hyaena	Hyaena hyaena	М	01.08.18	Cardiac failure due to senility
6	Bear	Melursus ursinus	М	22.08.18	Multiple organ failure due to senility
7	Lion	Panthera leo persica	F	09.09.18	Emphysema of lung due to senility leading to pulmonary asphyxia
8	Star Tortoise	Geochelone elegans	М	22.10.18	Senility
9	Leopard	Panthera pardus	F	28.10.18	Circumstantial evidence and necropsy lesions are suggestive of death due to multiple organ failure however confirmatory diagnosis can be made after laboratory investigation.
10	Star Tortoise	Geochelone elegans	М	20.11.18	Pneumonia
11	Bear	Melursus ursinus	U	25.12.18	Traumatic shock
12	Leopard	Panthera pardus	F	10.01.19	Pulmonary asphyxia and cardiac failure due to senility
13	Bear	Melursus ursinus	М	18.01.19	Respiratory failure due to senility
14	Barasingha	Cervus duvauceli branderi	F	24.02.19	Respiratory failure due to rumen impaction

S.no.	RZR 2009 Norm no.	Particulars of suggestions/recommendation	Time Period to Comply	Action Points
1. Gener	al requirement	ts		
1	10.1(3)	The entry of the visitors towards the snakes pits has been stopped as temporary arrangement. The temporary holding facility should be kept away from the visitors in the off display area. These snake pits should be demolished.	One Year	Pits have been demolished according to directions given by C.Z.A.
2	10.1(7)	There is no proper arrangement for disposal of solid and liquid waste in the zoo. the Zoo should have proper and environment friendly waste disposal system so that it operates with minimum stress on the environment. The disposal of the liquid wasted in the zoo should be particularly planned in a proper manner for the entire zoo area.	One Year	Will be complied. The Master Plan will include the plan too.
2. Admir	histrative & Sta	ffing Pattern	L	
3	10.2(2)	The zoo is a medium category zoo. Therefore, the zoo should have the curator, the education officer and the biological, one person for each of the posts. These posts are separate posts with will-defined duties and responsibilities under the recognition of zoo rules, 2009. Therefore, these posts should be filled up accordingly as per rule.	One Year	The zoo has been recognized as a small zoo now. R.O. Safari is curator of the Zoo and proposal for sanction of education officer and biologist has been sent to the higher office.
3. Devel	opment & Plan	ning		
4	10.3(1&2)	The zoo should get its Master Plan approved immediately.	Immediately	The revised master (layout) plan has been sent for approval.
5	10.3(4)	The zoo should prepare the collection plan properly as per the availability of the housing facility in the zoo for the particular species.	Immediately	Complied. Collection plan, based on the housing capacity has been prepared and sent.
6	10.3(3)	The pucca building in the zoo including animal houses and visitor facilities needs to be properly camouflaged with vegetation so that they merge with the green environment of the zoo.	One Year	Will be complied. Work is under progress.
7	10.3(8)	The zoo is accepting rescued animals for housing without intimation to the CZA. The CZA should be informed about the acquisition and housing of the rescued animals of the endangered species.	Immediately	Complied. Intimation is being sent regularly whenever situation arises.

#### 28. COMPLIANCE WITH CONDITIONS STIPULATED BY THE CENTRAL ZOO AUTHORITY

	al housing, dis			
8	10.4(3)	The chain link fences of the display enclosures should be properly erected without any looseness and with proper concrete & brick grouting. They should be periodically maintained and painted to protect it from rusting.	One Year	Maintenance is being done. Will be complied as directed.
9	10.4(5)	Leopard enclosure should have inclined iron sheet to prevent escape of animals.	One Year	Will be complied.
10	10.4(5)	The enclosure of the Nilgai, Sambar and Blackbuck has been constructed with temporary fencing. It was observed that the free living animal of the National Park has been kept in the enclosure for the visitors viewing. It is highly objectionable and should not be practiced in the zoo in future. No animal from the National Park should be taken in captivity for display to the public in captive conditions. The fencing should be removed immediately and all animals of the National Park be freed. The action needs to be taken against the officers responsible for this illegal action.	Immediately	No animal from the free ranging has been taken into captivity in recent years. The animals species present as free ranging have no place in the proposed collection plan and the revised master (layout) plan has been proposed accordingly. The compliance of removing animals from display enclosures is being done in accordance to the safety and welfare of the present captive herbivores.
11	10.4(9)	All enclosures in the zoo should have stand-off barriers as per the CZA norms. The existing stand-off barriers of the animal enclosures do not have stand-off barriers. The stand-off barriers in front of leopard enclosure should be replaced immediately. Further, the foot paths for visitors, along the enclosures, are in very bad conditions. They need to be repaired immediately. The hedge plantations are required for all enclosures.	One Year	Standoff barrier in front of the Leopard enclosure has been replaced. Hedge plantation has been taken up. Directions regarding foot paths and standoff barriers will be complied.
12	10.4(10)	The zoo being a medium category zoo, interactive interpretation facilities should be provided for the purpose of explaining behavior and biology of the species displayed in the enclosure.	One Year	The more signages have been placed with Q.R code. The provision of QR code facility enables visitors to see video and information in chosen language.
13	10.4(10)	Most of the enclosures in the zoo do not have appropriate signages. There is need to install signage's with adequate information regarding biology and behavior of the animals.	Immediately	As above

5. Upke	ep and healtho	care of animals		
14	10.5(1)(h)	Provision of footbath of adequate size with proper disinfectant at entry and exit points of all animal houses should be provided and it should be made use of also.	One Year	Complied.
15	10.5(2)(6)	The food and water samples should be tested randomly.	Immediately	Complied.
16	10.5(2)(3)	The zoo should have a sufficient sized functional freezer in the meat processing facility for storage of meat products and to keep cold until it is fed to the animals.	Immediately	Facility exists. Complied.
17	10.5(2)(4)	The meat handlers entering the facility should change into a clean and disinfected boots and coveralls.	Immediately	Complied.
18	10.5(2)(5)	The met handlers should use clean gloves when handling the meat.	Immediately	Complied.
6. Veter	inary and Infra	structure Facilities		
19	10.6(3)	The zoo should have a Lab Assistant	Immediately	Not required in a small zoo.
9. Acqui	isition and bre	eding of animals		
20	10.9(4)	The zoo should acquire mates for single animals (Gaur, White Tiger and Gharial) on priority basis.	Immediately	Process for acquisition has been started. Will be Complied.
10. Rese	earch activities	5		I
21	10.10	The zoo should conduct research works on different aspects of captive wild animals for effective management.	One Year	A project on free ranging jackals in regards to health management of captive animals has been taken up.
11. Edu	cation and out	reach activities	1	1
22	10.11	The zoo should have appropriate signage's and interpretation facilities. Souvenir shop, Library facility accessible, dedicated website to carry out the education outreach and awareness activities.	Immediately	Van Vihar National Park and Zoo has signages, an independent website, a shop, workshops, educational and awareness activities are being held at regular intervals.

12. visit	ors facilities			
23	10.12(1)	The civic facilities for visitors should be maintained neat and clean and it should be functional so that the visitors may use it. All of these civic facilities should be accessible appropriate and convenient for the physically disadvantaged persons.	Immediately	Zoo has clean toilets and other desired civic amenities.
24	10.12(3)	Ramp facilities to the toilets and drinking points and all animal enclosures should be made available for the physically disadvantaged persons.	Immediately	Being complied. (directions issued)
Rule 9 c	of the Recognit	tion of Zoo Rules, 2009	I	
25		<ul> <li>i. The zoo has 87 animals of the 15 species only in captivity as per the information provided at the time of evaluation. It was also confirmed during evaluation.</li> <li>ii. The zoo has a large number of free living animals in the National Park. The free living animals are being shown in the zoo inventory of captive animals. As a result the categorization of the zoo needs re-examination.</li> <li>iii. The area under the zoo should be clearly demarcated and enclosed with a chain link fence to separate captive animal facility from the national Park. The area under the National Park should be clear.</li> </ul>	Immediately	The zoo has been recognized as a small sized zoo. The inventory has already been revised as per the directions of the CZA. The directions of clear demarcation of the area of the zoo from the National Park has been proposed on the revised master (layout) plan being sent for approval. It is also requested here, that the National Park and the zoo has remained a unified ecosystem so far, with no issues regarding visitors-animal conflict or any administrative problems due to non demarcation of boundaries between the zoo and the National Park to date. There seems no need to fence the area and create a physical barrier on ground for the free ranging animals. It would affect their feeding and drinking water needs adversely if it is done and also take away the value of the park as well. It is therefore proposed and requested that the areas be demarcated with pillars or other structures agreed upon on the ground for administrative distinction.

#### 29. LIST OF FREE LIVING WILD ANIMALS WITHIN THE ZOO PREMISES

#### a. Mammals-

- 1. Sambhar
- 2. Cheetal
- 3. Neelgai
- 4. Black buck
- 5. Langoor
- 6. Wild boar
- 7. Jackal
- 8. Porcupine

#### b. Birds -

S.No	Nomenclature	Water/ Terrestrial/ Arboreal	Migratory/ Resident/ Local Migratory	Status
1	Little Grebe	water	М	Rare
	Tachybaptus ruficllis			
2	Indian Shag	water	Μ	Uncommon
	Phalacrocorax fuscicollis			
3	Little Cormorant	water	LM	Common
	Phalacrocorax niger			
4	Large Cormorant	water	Μ	Rare
	Phalacrocorax			
5	Darter	water	LM	Rare
	Anhinga rufa			
6	Grey Heron	water	R	Common
	Ardea cinerea			
7	Purple Heron	water	R	Less abundant
	Ardea purpurea			
8	Large Egret	water	R	Common
	Ardea alba			
9	Median Egret	water	R/LM	Less abundant
	Egretta intermedia			
10	Little Green Heron	water	R/LM	Very rare
	Ardeola striatus			
11	Night Heron	Arboreal	R	Uncommon
	Nycticorax nycticorax			
12	Pond Heron	water	R	Common
	Ardcola grayii			
13	Cattle Egret	W/T	R	Common
	Bubulcus ibis			
14	Little Egret	W/T	R	Common
	Egretta garzetta			
15	Chestnut Bittern	W/A	LM	Very rare
	Ixobrychus cinnamomeus			
16	White Stork	W	М	Extremely rare
	Ciconia ciconia			
17	Painted Stork	W/T	LM	Uncommon
	Mycteria leucocephala			
18	Openbilled Stork	W/T	LM	Common
	Anastomus oscitans			
19	Whitenecked Stork	water	LM	Uncommon

20	Blacknecked Stork	water	Μ	Extremely rare
	Ephippiorhynchus asiaticus			
21	White Ibis	water	Μ	Less abundant
	Threskiornis aethiopica			
22	Glossy Ibis	water	Μ	Rare
	Plegadis falcinellus			
23	Black Ibis	water	LM	Rare
	Pseudibis papillosa			
24	Spoonbill	water	М	Common
	Platalea leucorodia			
25	Barheaded Goose	water	Μ	Uncommon
	Anser indicus			
26	Brahminy Duck	water	М	Common
	Tadorna ferruginea			
27	Comb Duck	water	LM	Common
	Sarkidiornis melanotos			
28	Lesser Whistling Teal	water	LM	Common
	Dendrocygna javanica			
29	Pintail	water	Μ	Common
	Anas acuta			
30	Common Teal	water	Μ	Uncommon
	Anas crecca			
31	Spotbill	water	LM	Common
-	Anas poecilorhyncha			
32	Mallard	water	М	Very rare
	Anas platyrhynchos			,
33	Gadwall	water	М	Common
	Aas strepera			
34	Wigeon	water	М	Common
-	Anas Penelope			
35	Shoveller	water	М	Less abundant
	Anas clypeata			
36	Gargeny	water	М	Common
	Anas querquedula			
37	Common Pochard	water	м	Uncommon
-	Aytya ferina			
38	Redcrested Pochard	water	М	Common
	Netta rufina			
39	White-eyed Pochard	water	М	Very rare
	Aythya nyroca			
40	Cotton Teal	water	М	Common
	Nettapus coromandelianus			
41	Blackwinged Kite	Terrestrial	R	Uncommon
	Elanus caeruleus			
42	Common Pariah Kite	Terrestrial	R	Common
-	Milvus migrans			
43	Shikra	Terrestrial	R	Common
-	Accipiter badius			
44	White-eyed Buzzard	Arboreal	R	Uncommon
-	Butastur teesa			
45	Spotted Eagle	Terrestrial	М	Rare
	Aquila clanga			
46	Tawny Eagle	Terrestrial	LM	Very rare

	Aquila vindhiana			
47	Crested Serpent Eagle	Arboreal	R	Rare
	spilornis cheela			
48	Peregrine Falcon	Arboreal	LM	Extremely rare
	Falco peregrines			
49	Short toed Eagle	Terrestrial	R	Uncommon
	Circaetus gallicus			
50	Marsh Harrier	W/T	М	Common
	Circus aeruginosus			
51	Whitebacked Vulture	Terrestrial	R	Extremely rare
	Gyps bengalnsis			
52	Indian Longbilled Vulture	Terrestrial	LM	Extremely rare
	Gyps indicus			,
53	Palla's Fishing Eagle	W/T	м	Extremely rare
	Haliaeetus leucoryphus			
54	King Vulture	Terrestrial	R	Extremely rare
•••	Sarcogyps calvus			
55	White Scavenger Vulture	Terrestrial	R	Common
	Neophron percnopterus			
56	Kestrel	Terrestrial	R	Uncommon
00	Falco tinnunculus		N N	Chicommon
57	Common Grey Quail	Terrestrial	R	Common
57	Coturnix coturnix	Terrestria	N N	Common
58	Rain Quail	Terrestrial	R	Rare
50	Coturnix coromandelica	Terrestria	I I I I I I I I I I I I I I I I I I I	Itale
59	Painted Partridge	Terrestrial	R	Extremely rare
39	Francolinus pictus	Terrestria	N.	
<u> </u>		Terrestrial		Common
60	Grey Partridge	Terrestrial	R	Common
	Francolinus pondicerianus			
61	Red Jungle Fowl	Terrestrial	R	Rare
	Gallus gallus			-
62	Common Peafowl	Terrestrial	R	Common
	Pavo cristatus			
63	Common Crane	water	LM	Uncommon
	Grus grus			
64	Sarus Crane	water	R/LM	Common
~-	Grus antigone			
65	White Breasted Waterhen	water	R	Common
00	Amaurornis phoenicurus			
66	Indian Moorhen	water	R	Uncommon
67	Gallinula chloropus	water	R/LM	Common
67	Purple Moorhen Porolyrio porphyrio	water		Common
60		water	NA NA	Common
68	Coot	water	M	Common
69	Fulica atra Bronze winged Jacana	water	R	Common
03	Metopidius indicus	Water	IN IN	
70	Pheasant Tailed Jacana	water	R	Common
10	Hydrophasianus chirurgus	watti	n n	
71	Black winged Stilt	water	R/LM	Common
11	Himantopus himantopus	walei		Common
72	Indian Courser	Terrestrial	R	Uncommon
12	Cursorius coromandelicus	renestilai	n.	
73		W/T	R	Common
13	Red wattled Lapwing	VV/ I	Г	Common

74	Spurwinged Plover	water	R	Rare
	Vanellus spinosus			
75	Yellow Wattled Lapwing	Terrestrial	R	Uncommon
	Vanellus malabaricus			
76	Curlew	water	М	Very rare
-	Numenius arquata			- ,
77	Blacktailed Godwit	water	М	Uncommon
	Limosa limosa			
78	Painted Snipe	water	м	Rare
-	Rostratula benghalensis			
79	Common Snipe	water	м	Uncommon
	Gallinago gallinago			
80	Redshank	water	М	Rare
	Tringa tetanus			
81	Marsh Sandpiper	water	М	Less abundant
	Tringa stagnatilis			
82	Greenshank	water	м	Uncommon
	Tringa nebularia			
83	Spotted Sandpiper	water	м	Common
	Tringa glareola			
84	Common Sandpiper	water	м	Common
01	Tringa hypoleucos	Water		
85	Little Ringed Plover	W/T	м	Common
00	Charadrius dubius			
86	Kentish Plover	W/T	м	Uncommon
00	Charadrius			Choominion
87	Temminck's Stint	water	м	Uncommon
01	Clalidris terminckii	Water		Chicominion
88	Ruff and Reeve	water	м	Very rare
00	Philomachus pugnax	Water		Very faile
89	Brownheaded Gull	water	м	Rare
00	Larus brunnicephalus	Water		Raic
90	Blackbellied Tern	water	м	Very rare
30	Sterna acuticauda	water	IVI	very late
91	River Tern	water	R/M	Common
91	Sterva aurantia	water	17/191	Common
92	Yellowlegged Green Pegion	Arboreal	R	Rare
92	Treron phoenicoptera	Aiboreai	ĸ	Raie
93	Blue Rock Pegion	Terrestrial	R	Common
95	Columba livia	Terrestria	Ν	Common
94	Ring Dove	Terrestrial	R	Common
34	Streptopelia decaocto	Terrestria	Ν	Common
95	Red Turtle Dove	Terrestrial	R	Common
55	Streptopelia tranquebarica	i ci i collidi	n	Common
96	Spotted Dove	Terrestrial	R	Common
50	Streptopelia chinensis	i ci i collidi	n	Common
97	Little Brown Dove	Terrestrial	R	Common
31		renestria	л	Common
00	Streptopelia senegalensis	Arborcel	Р	Common
98	Roseringed Parakeet	Arboreal	R	Common
00	Psittacula krameri	Automat	<b>D</b>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
99	Blossomheaded Parakeet Psittacula cyanocephala	Arboreal	R	Uncommon
				1

	Cuculus micropterus			
101	Hawk Cuckoo	Terrestrial	R	Uncommon
	Cuculus varius			
102	Pied Crested Cuckoo	Terrestrial	LM	Common
	Clamator Jacobinus			
103	Koel	Terrestrial	R	Common
	Eudynamys Scolopacea			
104	Coucal	Terrestrial	R	Common
105	Centropus sinensis			
105	Barn Owl	Terrestrial	R	Uncommon
400	Tyto alba	Tana dalat		
106	Indian Great Horned Owl	Terrestrial	R	Uncommon
407	Bubo bubo	Townsofrial		0
107	Spotted Owlet Athene brama	Terrestrial	R	Common
400	House Swift	Torrectric		Common
108		Terrestrial	R	Common
100	Apus affinis	Torrectrial	1 84	
109	Alpine Swift	Terrestrial	LM	Very rare
110	Apus melba Crested Tree Swift	Terrestrial	R	Uncommon
110		Terrestriai	ĸ	Uncommon
444	Hemiprocne longipennis	Torrectric		Common
111	Common Indian Nightjar	Terrestrial	R	Common
112	Caprimulgus asiaticus Pied Kingfisher	weter	R	Common
112	_	water	ĸ	Common
113	Ceryle rudis Small Blue Kingfisher	wotor	R	Common
113	Alcedo atthis	water	ĸ	Common
114	Whitebreasted Kingfisher	W/T	R	Common
114	Halcyon smyrnensis	VV/1	ĸ	Common
115	Stork Billed Kingfisher	water	м	Very rare
115	Pelargopsis capensis	Water	141	Very Tale
116	Black capped Kingfisher	water	M	Extremely rare
110	Halcyon pileata	Watch		
117	Bluetailed Bee-Eater	Terrestrial	LM	Uncommon
	Merops philippinus			
	Small Green Bee-eater	Terrestrial	R	Common
	Merops orientalis			
119	Blue Jay	Terrestrial	R	Common
	Coracias benghalensis			
120	Ноорое	Terrestrial	R	Common
	Upupa epops			
121	Common Grey Hornbill	Terrestrial	R	Uncommon
	Tockus birostris			-
122	Coppersmith	Terrestrial	R	Common
	Megalaima haemacephala			
	Blackbacked Woodpecker	Arboreal	R	Very rare
	Chrysocolaptes festivus			
124	Brown Capped	Dendrocopos	R	Uncommon
	Pygmywoddpeeker			
125	Mahratta Woodpecker	Arboreal	R	Uncommon
	Picoides mahrattensis			
126	Goldenbacked Woodpecker	Arboreal	R	Uncommon
	Dinopium benghalense			
127	Eurasian wryneck	Arboreal	R	Uncommon

	Jynx torquilla			
128	Large Green Barbet	Arboreal	R	Common
	Megalaima zeylanica			
129	Indian Pitta	Arboreal	R	Uncommon
	Pitta brachyuran			
130	Redwinged Bushlark	Terrestrial	R	Uncommon
	Mirafra erythroptera			
131	Blackbellied Finch-Lark	Terrestrial	R	Common
	Eremopterix grisea			
132	Rufoustailed Finchlark	Terrestrial	R	Common
-	Ammomanes phoenicurus			
133	Crested Lark	Terrestrial	R	Common
	Galerida cristata			
134	Dusky Crag Martin	Terrestrial	R	Common
101	Hirundo concolor			
135	Swallow	Terrestrial	R	Common
100	Hirundo rustica		Ň	Common
136	Indian Cliff Swallow	Terrestrial	R	Common
100	Hirundo fluvicola	Terrestria	N	Common
137	Wiretailed Swallow	Terrestrial	R	Common
137	Hirundo Smithii	Terrestria	N	Common
138	Striated Swallow	W/T	R	Very rare
130		VV/1	ĸ	very rare
100	Hirundo daurica	Torrectric	P	Dara
139	Baybacked Shrike	Terrestrial	R	Rare
140	Lanius ecxubitor Rufous backed Shrike	Terrestrial	R	Common
140	Lenius schach	Terrestria	ĸ	Common
141	Golden Oriole	Terrestrial	LM	Common
141	Oriolus oriolus	Terrestria		Common
142	Black headed Oriole	Arboreal	R	Uncommon
142	Oriolus xanthornus	Alboreal	N	Uncommon
143	Black Drongo	Terrestrial	R	Common
145	Dicrurus adsimilis	Terrestria	N	Common
144	Whitebellied Drongo	Terrestrial	R	Uncommon
144	Dicrurus caerulescens	Terrestria	ĸ	Uncommon
145		Arborool	R	Rare
145	Racket-tailed Drongo	Arboreal	ĸ	Rare
4.40	Dircrurus paradiseus	Tannaatrial		
146	Rosy Pastor	Terrestrial	M	Very rare
4 47	Sturnus roseus	Tannaatrial		0
147	Brahminy Myna	Terrestrial	R	Common
4.40	Sturnus pagodarum	Terrestrial		
148	Greyheaded Myna	Terrestrial	M	Uncommon
4.40	Sturnus malabaricus	Taxatalat		0
149	Indian Myna	Terrestrial	R	Common
450	Acridotheres tristis	Taxaatalat		
150	Bank Myna	Terrestrial	LM	Rare
454	Acridotheres ginginianus	Tanna (Pal		0
151	Pied Myna	Terrestrial	R	Common
450	Sturnus contra	<b>T</b>		
152	Tree Pie	Terrestrial	R	Common
455	Dendrocitta vegabunda			
153	House Crow	Terrestrial	R	Common
<u> </u>	Corvus splendens			
154	Jungle Crow	Terrestrial	R	Common

	Corvus macrorhynchos			
155	Common Wood Shrike	Arboreal	R	Very rare
	Tephrodornis pondicerianus			
156	Blackheaded Cuckoo Shrike	Terrestrial	R	Very rare
	Coracinamelanoptera			
157	Large Cuckoo Shrike	Arboreal	R	Rare
	Coracina novaehollandiae			
158	Scarlet Minivet	Arboreal	R	Rare
	Pericrocotus flammeus			
159	Small Minivet	Arboreal	R	Uncommon
	Pericrocotus cinnamomeus			
160	Whitebellied Minivet	Terrestrial	R	Rare
	Pericrocotus erythropygius			
161	lora	Terrestrial	R	Common
	Aegithina tiphia			
162	Goldfronted Chloropsis	Arboreal	R	Rare
-	Chloropsis aurifrons			
163	Goldmantled Chloropsis	Arboreal	R	Very rare
	Chloropsis cochinchinensis			,
164	Red vented Bulbul	Terrestrial	R	Common
	Pycnonotus cafer			
165	Yollow-eyed Babbler	Terrestrial	R	Less abundant
	Chrysomma sinense			
166	Common Babbler	Terrestrial	R	Common
	Turdoides caudatus			
167	Large Grey babbler	Terrestrial	R	Common
107	Turdoides malcolmi			
168	Jungle Babbler	Terrestrial	R	Common
100	Turdeides striatus		, N	
169	Redbreasted Flycatcher	Arboreal	Μ	Uncommon
100	Muscicapa parva	Alberedi		
170	Tickel's Blue Flycatcher	Terrestrial	R	Less abundant
170	Muscicapa tickelliae	Terrestria	ĸ	Less abundant
171	Paradise Flycatcher	Terrestrial	R	Rare
17.1	Terpsiphone paradise	Terrestria	ĸ	
172	Verditer Flycatcher	Arboreal	R	Rare
172	Muscicapa thalassina	Aiboleai	ĸ	Itale
173	Greyheaded Flycatcher	Arboreal	R	Common
175	Culicicapa ceylonensis	Alboreal	ĸ	Common
174	Whitebrow Fantail Flycatcher	Terrestrial	R	Uncommon
1/4	Rhipidura oureola	Terrestria	ĸ	Oncommon
175	Ashy Wren-Warbler	Terrestrial	R	Common
	Prinia socialis			
176	Franklin's Wren-Warbler	Terrestrial	R	Less abundant
	Prinia hodgsonii			
177	Bristled Grassbird	Terrestrial	n/a	Recently discovered
	Chaetornis striatus			
178	Tailor Bird	Terrestrial	R	Less abundant
. •	Orthotomus sutorius			
179	Lesser Whitethroat	Arboreal	Μ	Common
	Sylvia curruca			
180	Bluethroat	Terrestrial	м	Very rare
	Erithacus svecicus			
181	Magpie Robin	Terrestrial	R	Common
		. on contrai		Common

	Copsychus saularis			
182	Black Redstart	Terrestrial	M	Common
	Phoenicurus ochruros			
183	Brown Rock chat	Terrestrial	R	Common
	Cercomela fusca			
184	Collared Bushchat	Terrestrial	М	Uncommon
	Saxicola torquata			
185	Pied Bush Chat	Terrestrial	R	Uncommon
	Saxicola caprata			
186	Indian Robin	Terrestrial	R	Common
	Saxicoloides fulicata			
187	Blue Rock Thrush	Terrestrial	R	Very rare
	Monticola solitaries			
188	Grey Tit	Arboreal	R	Uncommon
	Parus major			
189	Yellow cheeked Tit	Arboreal	R	Rare
	Parus xanthogenys			
190	Brown Rock Pipit	Terrestrial	R	Rare
	Anthus similis			
191	Paddyfield Pipit	Terrestrial	R	Common
	Anthus novaeseelandiae			
192	Thickbilled Flowerpecker	Arboreal	R	Uncommon
102	Dicaeum agile	,		
193	Yellow Wagtail	Terrestrial	Μ	Uncommon
100	Motacilla flava	Terrestrial		Choommon
194	Yellowheaded Wagtail	Terrestrial	M	Uncommon
104	Motacilla citreola	Terrestrial		Choommon
195	Grey Wagtail	Terrestrial	Μ	Uncommon
100	Motacilla cinerea			
196	White Wagtail	Terrestrial	R	Common
100	Motacilla alba	Terrestrial	N N	
197	Large Pied Wagtail	Terrestrial	R	Common
107	Motacilla maderaspatensis	Terrestrial	N N	
198	Purple Sunbird	Terrestrial	R	Common
100	Nectarimia asiatica	Terrestrial	N N	
199	White eye	Terrestrial	R	Common
100	Zosterops palpebrosa			
200	Yellow Throated Sparrow	Terrestrial	R	Common
200	Petronia xanthocollis			
201	House Sparrow	Terrestrial	R	Common
201	Passer domesticus			
202	Baya	Terrestrial	LM	Common
_02	Ploceus philippinus			
203	Red Munia	Terrestrial	LM	Very rare
	Estrilda amandava			
204	Spotted Munia	Terrestrial	LM	Rare
207	Lonchura punctulata			
205	Whitebacked Munia	Terrestrial	LM	Very rare
200	Lochura striata			
206	White Throated Munia	Terrestrial	LM	Common
200	Lonchura malabarica	i en courtai		
207	Crested Bunting	Terrestrial	LM	Uncommon
201	Melophus lathami	renestia		Gheommon
	เพียงหานร เล่นเล่าแ			<u> </u>