



Greens Zoological, Rescue and Rehabilitation Centre

Annual Report

2022-23

CONTENTS

S. No	Section	Page Number
1.	Report of the Officer-in-Charge, GZRRC	1
2.	History of the GZRRC	3
3.	Vision	3
4.	Mission	4
5.	Objective	4
6.	About us	5
7.	Organizational Chart	7
8.	Human Resources	8
9.	Capacity Building of the GZRRC personnel	8
10.	GZRRC Advisory Committee	10
11.	Health Advisory Committee	10
12.	Statement of Income and Expenditure of the GZRRC	11
13.	Daily Feed Schedule of Animals	11
14.	Vaccination Schedule of Animals	13
15.	De-worming Schedule of Animals	14
16.	Disinfection Schedule	14

S. No	Section	Page Number
17.	Health Check-up of Employees for Zoonotic Diseases	15
18.	Development Works carried out in the GZRRC during the year	15
19.	Education and Awareness programmes during the year	21
20.	Important Events and happenings in the GZRRC	21
21.	Seasonal special arrangements for upkeep of Animals	33
22.	Research Work carried out and Publications	34
23.	Conservation Breeding Programme of the GZRRC	35
24.	Animal acquisition / transfer / exchange during the year	37
25.	Rescue and Rehabilitation of the wild animals carried out by the GZRRC	44
26.	Annual Inventory of Animals	45
27.	Mortality of Animals.	61
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	61
29.	List of free-living wild animals within the GZRRC premises	66

1. Report of the Officer-in-Charge

I am pleased to present the Annual report of the Greens Zoological Rescue and Rehabilitation Centre (GZRRC), for the fiscal year of 2022-2023. The GZRRC was founded with the vision to conserve biodiversity while strengthening *ex-situ* and *in-situ* linkages and promote animal welfare by creating awareness among the masses. Since its inception, GZRRC has focused its activities on three primary aspects of promoting the welfare of animals and providing life time care to the animals rescued from Forest Departments & Rescue centres who have rescued animals from areas having man-animal conflict or any other reasons but does not have resources to keep them for life time, animals seized by various government authorities, and zoos who have animals beyond their carrying capacity and have no resources to keep them, and the conservation breeding of endangered species.

I am proud to report that GZRRC has delivered on all these aspects in this year. GZRRC started with an opening stock of 1873 animals and during this year acquired 1946 animals. Most of the animals acquired by GZRRC were part of its global initiative to rescue captive animals from impoverished zoos to decongest them and provide welfare to animals housed under sub-optimal conditions. GZRRC presently houses more than 229 rescued Leopards at its rescue and rehabilitation centre along with more than 850 Marsh Crocodiles and several other species of large & small carnivores and reptiles that were received from several zoological institutions spread all over the world.

Animal welfare is the bedrock of the foundations on which GZRRC is built. Hence, we have launched a global outreach program through which we have rescued animals housed under impoverished conditions in zoos, rescue centres and various governmental & non-governmental organisations across the world. We are happy to report that we have rescued many animals from zoological institutions and rescue centres both within and outside the country in an effort to provide these animals ideal conditions of welfare and care in species-appropriate captive habitats.

GZRRC is one of the very few conservation-focused institutions that has a global footprint in terms of its efforts to conserve endangered species of fauna. In this regard, we have initiated the conservation breeding programmes for several endangered species of fauna such as Okapi, Spix's macaw, Lear's macaw and St. Vincent amazon for the long-term survival of the extant population. GZRRC has also plan to initiate the conservation breeding of Asiatic lion, Cheetah, and Indian vultures along with several other species of endemic fauna. We are committed to not only successfully breed these species in captivity but also preserve their habitats in the wild to aid in future repatriation and increase post-release fitness.

We are continuously striving to create a better world for all captive animals and aid in the global efforts for biodiversity conservation. In this regard, we are collaborating with several national and international partners (individuals and organizations). We believe in the equitable growth of all partners zoological organizations within the country and have signed MoUs for strategic partnerships with several prominent institutions for strategic partnerships for the long-term development of conservation biology. This year we co-organized a Zoo-Biologist capacity enhancement workshop at GZRRC in collaboration with the Central Zoo Authority, which was

attended by 52 zoo biologists from across the country. Based on the overwhelming support and positive feedback received, we will be organizing more such events in the future that will lead to significant changes in the development of zoo sciences in the country.

I am grateful to all our partner organizations, Ministry of Environment Forest and Climate Change, Central Zoo Authority and Gujarat Forest Department, fellow Zoos/Rescue centres for their support, advice and opportunities afforded to our organization. Greens Zoological Rescue and Rehabilitation Centre will strive towards realizing its vision of global biodiversity conservation and animal welfare.



Brij Kishor Gupta, Ph.D
Director
Greens Zoological Rescue and Rehabilitation Centre,
Jamnagar, Gujarat.

2. History of the GZRRC:

A proposal was submitted, on 7th January 2019, to the Member Secretary, Central Zoo Authority (CZA) along with application for recognition under section 38 (H) sub section 2 of the Wildlife (Protection) Act, 1972 for the proposed establishment of Greens Zoological Rescue and Rehabilitation Centre (GZRRC) at village Kalanus, Taluka Lalpur, District Jamnagar, Gujarat. The Chief Wildlife Warden (CWLW), Government of Gujarat also wrote to the Member Secretary, CZA vide letter dated 23rd January 2019 requesting for the establishment of GZRRC at Jamnagar as it will strengthen the state's effort in conservation, education and awareness of wildlife in general and especially of Gujarat. The CWLW also mentioned that in view of the infrastructure, financial and organization strength of the agency, he recommends the grant of approval to the proposed GZRRC at Jamnagar in accordance with the CZA guidelines.

On 14th February 2019, CZA granted approval for the establishment under Section 38 H (1A) of the Wildlife Protection Act, 1972 for the establishment of GZRRC subject to certain conditions. CZA evaluated GZRRC facilities on 8th August 2020 and the recognition was granted on 17th August 2020 followed by a mid-term evaluation on 4th June 2022. The recognition is valid until 16th August 2023. On 10th March 2021, Greens Zoological Rescue and Rehabilitation Centre Society (GZRRCs) was registered Societies Registration Act, 1860. Since then, the GZRRCs has been looking after the day-today operation of the GZRRC. The Satellite Rescue Facility for leopards was operationalised on 26th November 2020. Extensions of the Satellite Rescue Facility used in housing Crocodiles, Bears and Leopards were operationalised on 1st December 2021, 10th March 2022 and 27th November 2022 respectively. This was followed by the operationalisation of the Animal Quarantine centre on 4th July 2021 to cater the need for quarantining animals that are sick or acquired from other zoos/institutions. The Rescue and Rehabilitation Centre which is being used to provide life time care for rescued wild animals was operationalised on 25th July 2022. The One-horned Rhinoceros Conservation Breeding Centre used for conservation breeding programme of Greater One Horned Rhinoceros at GZRRC was operationalised on 11th December 2022.

3. Vision:

For the establishment of the Greens Zoological, Rescue and Rehabilitation Centre, the following vision has been outlined:

(i) To garner global reverence for nature while conserving biodiversity by strengthening ex-situ and in-situ linkages

(ii) The Greens Zoological, Rescue and Rehabilitation Centre aims at making the facility to International standards following the modern trend of design as open, naturalistic, and eco-friendly Zoo. No activity would be undertaken by the Greens Zoological, Rescue and Rehabilitation Centre that disturbs the natural landscape of the area. The design of animal enclosures and the support infrastructure would be such that they can merge fully in the environment of the Greens Zoological, Rescue and Rehabilitation Centre.

(iii) The Greens Zoological, Rescue and Rehabilitation Centre shall house only such species, which can be provided quality life of adequate longevity so that they can breed and lead to self-sustaining and genetically and behaviourally viable population at the zoo.

(iv) The Greens Zoological, Rescue and Rehabilitation Centre shall maintain highest standards of educative signage and interpretation facilities at the animal enclosures to enable the visitors in having a rewarding experience at the zoo.

(v) Greens Zoological, Rescue and Rehabilitation Centre shall endeavour to maintain and enhance the naturalistic and aesthetic value of the area.

4. Mission:

The Greens Zoological Rescue and Rehabilitation Centre is committed to saving species by uniting our expertise in animal care and conservation science with our dedication in inspiring passion for nature through best practices of management and bringing education and awareness among people.

5. Objective:

The objective of establishing this Greens Zoological, Rescue and Rehabilitation Centre is to provide a safe, natural, unpolluted, undisturbed and ambient space for animals and animals which shall come as injured, orphaned, or rescued or due to man-animal conflict or by way of exchange from zoos or as surplus from other zoos.

- I. The Main objective of establishing this Greens Zoological, Rescue and Rehabilitation Centre is to complement and strengthens the national efforts in conservation of the rich biodiversity of the country.
- II. Greens Zoological, Rescue and Rehabilitation Centre aims to conserve endangered species by breeding, increase healthy population by rehabilitating them back in the wild.
- III. Providing opportunities for scientific studies useful for conservation of wildlife and creation of database for sharing between the state and central government.
- IV. To collect and collate the scientific data on the biology, behaviour and healthcare of various species of wild animals housed at the Greens Zoological, Rescue and Rehabilitation Centre and use the same in future management of the Greens Zoological, Rescue & Rehabilitation Centre. These data will also help in wildlife management.
- V. To create among the visitors' compassion towards wild animals through better understanding of the linkages of long-term survivals of various species of wild animals to availability of fertile soil, potable drinking water and pollution free environment
- VI. To assist in conservation of various species of wild animals and their habitat by sensitizing the people about the benefits of adopting sustainable life styles.
- VII. To provide the opportunities to the public to see the wild animals' close quarters, so the Greens Zoological, Rescue and Rehabilitation Centre will have a sensational value not only for public but for children also. This will certainly bring the happiness movement in their life.
- VIII. Greens Zoological, Rescue and Rehabilitation Centre will act as a Rescue center for orphaned/ seized/ accidental/ injured/ imprinted from human habitation, wild animals. Rescue animal will be released in the wild as soon as possible after treatment.
- IX. To educate and aware zoo visitors for conservation, protection and to explain them their role in balancing the Eco-System.
- X. To provide rescue facility to injured wild animals through best veterinary services.
- XI. To provide shelter to the animals which have strayed out of their habitat and cannot be released back in the wild.
- XII. Conservation breeding of endangered species of wild animals, available within central highlands of India.
- XIII. To provide housing and upkeep to the orphaned animals of endangered of species rescued from the wild.

The proposed Greens Zoological, Rescue and Rehabilitation Centre will provide an opportunity to strengthen the initiatives taken for conservation of rich bio diversity of the state.

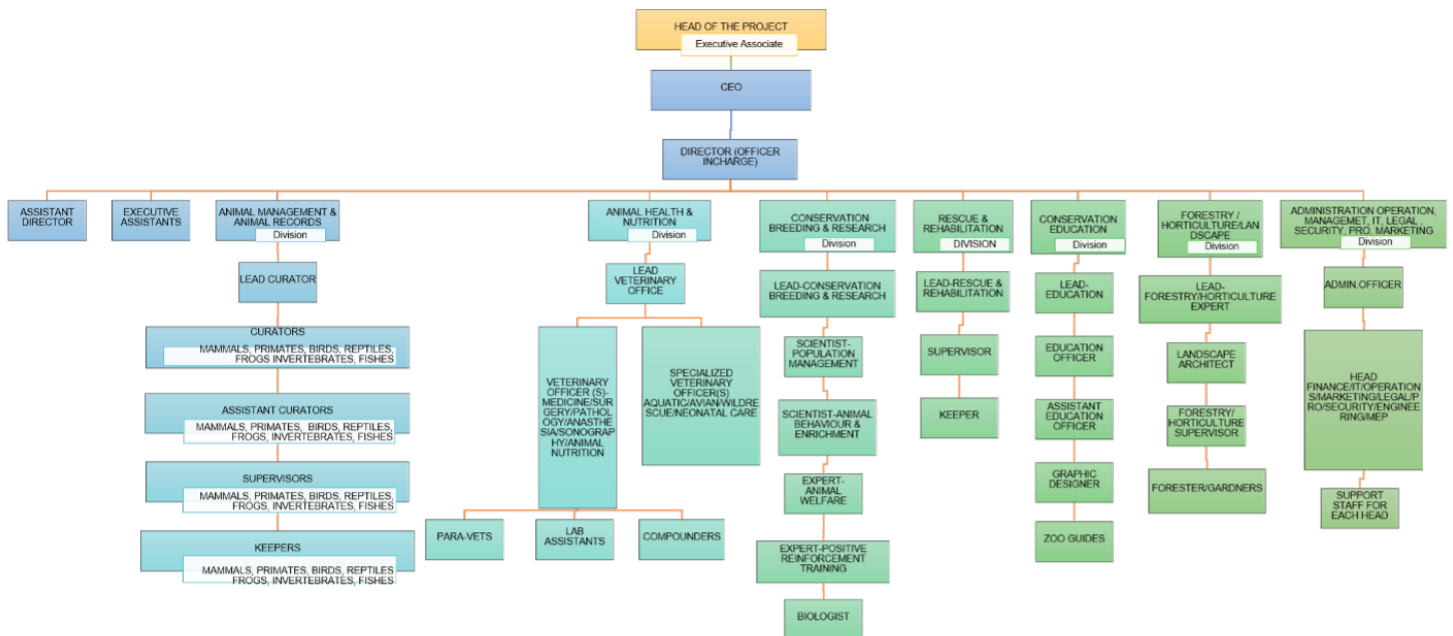
6. About us:

Sl. No.	Particulars	Information
Basic Information about the GZRRC		
1	Name of the GZRRC	Greens Zoological, Rescue and Rehabilitation Centre
2	Year of Establishment	2019
3	Address of the GZRRC	Greens Zoological, Rescue and Rehabilitation Centre SSO, A5, Village Moti Khavdi District Jamnagar, Gujarat 361 142.
4	State	Gujarat
5	Telephone Number	0288-3510501
6	Fax Number	
7	E-mail address	gzrrc@outlook.com
8	Website	www.gzrrc.in
9	Distance from nearest	Airport: 24 km (Jamnagar Airport)
		Railway Station: 30.4 km (Jamnagar Railway Station)
		Bus Stand: 30 km (Jamnagar Bus Stand)
10	Recognition Valid up to (Date)	16.08.2023
11	Category of zoo	Mini Zoo
12	Area (in hectares)	230 (568.4 acres)

Sl. No.	Particulars	Information
13	Number of Visitors (Financial Year)	Adult: NA
		Children: NA
		Total Indian: NA
		Total Foreigners: NA
		Total Visitors: NA
14	Visitors' Facilities Available in Zoo	NA
15	Weekly Closure Day of the Zoo	NA
Management Personnel of the GZRRC		
16	Name with designation of the Officer in-charge	Dr. Brij Kishor Gupta
	Name of the Veterinary Officer (s)	1. Dr. Navnath Nighot 2. Dr. Ajay Deshmukh 3. Dr. Boon Allwin 4. Dr. Gaurav Shrivastav 5. Dr. Ankush Dubey 6. Dr. Jayvin Kelaiya 7. Dr. Sujay S 8. Dr. Nikita Salian
	Name of the Curator (s)	1. Mr. Allwin Jesudasan 2. Mr. Ajay Kartik
	Name of the Compliance Officer(s)	1. Dr. Prudhvi Raj 2. Dr. Sitendu Goswami
	Name of the Biologist (s)	1. Dr. Akshaya Mane
	Name of the Education Officer	Nil
	Name of the Compounder/ Lab Assistant	Nil
Owner / Operator of the GZRRC		
17	*Name of the registered operator	Greens Zoological Rescue and Rehabilitation Centre Society

Sl. No.	Particulars	Information
18	Address of the Operator	Greens Zoological Rescue and Rehabilitation Centre Society, "Vraj", Paldi, Ahmedabad, Gujarat, India - 380007
19	Contact details/Phone number of Operator	+91-288-3510501
20	E-mail address of Operator	gzrrc@outlook.com

7. Organizational Chart of GZRRC



8. Present Human Resource for the Management of the Satellite Rescue Centre and Greens Zoological Rescue & Rehabilitation Centre:

SI. No.	Designation	Number of Sanctioned Posts	Current strength	Names of the incumbent
1.	Chief Executive Officer	1	1	Mr. Vivaan Karani
2.	Director	1	1	Dr. Brij Kishor Gupta
3.	Veterinary Doctor (s)	10	8	Dr. Navnath Nighot Dr. Ajay Deshmukh Dr. Boon Allwin Dr. Gaurav Shrivastav Dr. Ankush Dubey Dr. Jayvin Kelaiya Dr. Sujay S Dr. Nikita Salian
4.	Curator	4	2	Mr. Allwin Jesudasan Mr. Ajay Kartik
5.	Compliance Officers	3	2	Dr. Prudhvi Raj Dr. Sitendu Goswami
6.	Biologist	2	1	Dr. Akshaya Mane
7.	Facility Manager(s)	4	4	
8.	Control Room Operator	3	3	
9.	Supervisor	5	2	
10.	Animal Keeper	300	251	

9. Capacity Building of GZRRC Personnel

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	Dr. Gaurav Srivastav, Dr. Ankush Dubey and	Rescue and Care of Wild animals	13.06.2022 to 18.06.2022	Sakkarbaug Zoological Park,

	Dr. Jayvin Kelaiya, and animal caretakers Sagar, Avinash Patil, Aditya and Bhavani Singh			Junagadh, Gujarat
2	Mr. Pranay Chhabria and team	Exposure visit and Enclosure Design	7.08.2022 to 13.08.2022	Mandai Wildlife Reserves, Singapore
3	Dr. Brij Kishor Gupta	National Conference for Zoo Directors organized by Central Zoo Authority	10.09.22 to 11.09.22	Nandankanan Zoological Park, Bhubaneswar, Odisha
4	Dr. Brij Kishor Gupta	To discuss collaboration proposal between Smithsonian Conservation Biology Institute (SCBI) and GZRRC	28.09.22 to 30.09.22	Smithsonian Conservation Biology Institute (SCBI), Virginia, USA
5	Dr. Brij Kishor Gupta	IUCN Annual meeting of the Conservation Planning Specialist Group (CPSG) for 2022	20.10.22 to 23.10.22	Tenerife, Spain
6	Dr. Brij Kishor Gupta	77th World Association of Zoos and Aquariums (WAZA) Annual Conference	23.10.22 to 27.10.22	Tenerife, Spain
7	Dr. Prudhvi Raj and Dr. Sitendu Goswami	Master Planning of Zoos	05.11.22 to 07.11.22	Sardar Patel Zoological Park, Ekta Nagar, Gujarat
8	Mr. Vivaan Karani, Mr. Pranay Chhabria and Dr. Brij Kishor Gupta	Ex-situ Conservation of Endangered Species	02.12.22 to 05.12.2022	Association for the Conservation of Threatened Parrots (ACTP), Germany
9	Dr. Brij Kishor Gupta	National Conference for Zoo Directors organized by Central Zoo Authority	18.01.2023 to 19.01.2023	Sri Chamarajendra Zoological Gardens, Mysuru, Karnataka

10	Animal caretakers Shivkumar Gurung and Ketan Jadhav	Enhancement Workshop for Zoo Keepers of Western Region	17.03.2023 to 19.03.2023	Nahargarh Biological Park, Jaipur, Rajasthan
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10. GZRRC Advisory Committee –

A) Date of constitution

23-3-2021

B) Members

The following members are part of the committee.

Dr. Brij Kishor Gupta, Director, GZRRC

Dr. Abhishek Sharma, Director, Sakkarbaug Zoological Park

Dr. Riyaz Kadivar, Veterinary Officer, Sakkarbaug Zoological Park

Dr. Navnath Nigot, Senior Veterinary Doctor, GZRRC

Dr. Boon Allwin, Veterinary Doctor, GZRRC

Dr Ajay Deshmukh, Veterinary Doctor, GZRRC

C) Dates on which Meetings held during the year

1. 2nd Zoo Advisory Committee meeting was held on 09.06.2022.

2. 3rd Zoo Advisory Committee meeting was held on 26.11.2022.

11. Health Advisory Committee–

A) Date of constitution

23-3-2021

B) Members

The following members are part of the committee.

Dr. Brij Kishor Gupta, Director, GZRRC

Dr. Abhishek Sharma, Director, Sakkarbaug Zoological Park

Dr. Riyaz Kadivar, Veterinary Officer, Sakkarbaug Zoological Park

Dr. Navnath Nigot, Senior Veterinary Doctor, GZRRC

Dr. Boon Allwin, Veterinary Doctor, GZRRC

Dr Ajay Deshmukh, Veterinary Doctor, GZRRC

C) Dates on which Meetings held during the year

1. 2nd Health Advisory Committee meeting was held on 09.06.2022.

2. 3rd Health Advisory Committee meeting was held on 26.11.2022.

12. Statement of income and expenditure of the GZRRC

Income from donation during the year: INR 78 crores

Expenditure during the year: INR 70.9 crores

13. Daily feed Schedule of Animals at GZRRC

Sl. No	Species	Feed item	Quantity		Day of fasting
			Winter	Summer	
1.	Large felids (Lion & Tiger Adult)	Beef/Goat/Chicken + minerals + frozen watermelon for enrichment	7 kgs	6 kgs	Saturday
2.	Large felids (Leopard, Jaguar, Puma)	Beef/Goat/Chicken + minerals	2.5 kgs	2 kgs	Saturday
3.	Large felids (Cheetah)	Beef/Goat/Chicken + minerals	1.5 kgs	1 kg	Saturday
4.	Small felids & other lesser carnivores	Beef/Goat/Chicken/Fish + minerals	250 g	250 g	
5.	Canids	Beef/Goat/Chicken + minerals	400 g	400 g	
6.	Ursids	Milk	1000 ml	1000 ml	
		Wheat daliya	300 g	300 g	
		Boiled Egg	2 no's	2 no's	
		Seasonal Greens, vegetable & fruits	1.5 kgs	1.5 kgs	
		Indian bread	200 g	200 g	
		Compressed Oats	150 g	150 g	
		Honey	25 ml	25 ml	
		Chicken/fish/Insects	500 g	500 g	
7.	Large Ungulates (Sambar, Barasingha + Nilgai)	Green fodder + Concentrate + minerals	14 kgs +1 kgs	14 kgs +1 kgs	
8.	Smaller Ungulates (Spotted deer, Blackbuck, Sangai, Hog deer, etc.	Green fodder + Concentrate + minerals	4.5 kgs +500 g	4.5 kgs + 500 g	
9.	Goral, Takin and Muntjac	Green fodder + Concentrate+ minerals	4.5 kgs +500 g	4.5 kgs + 500 g	
10	Hippopotamus	Green fodder + Vegetables+ minerals	80 kgs +5 kgs	80 kgs +5 kgs	
11	Greater One horned Rhinoceros	Green fodder + Vegetables/fruits+ minerals	50 kgs	50 kgs	

12	Primates (Macaques/Baboons)	Vegetables/Fruits + leaves + eggs + (pellets + rice +Insects)	500 g + 50 g + 2 +50 g	500 g +50 g + 2 + 50 g	
13	Primates (Leaf eating)	Vegetables/Fruits + leaves + eggs + (pellets + rice +Insects)	300 g + 50 g + 2 +50 g	300 g + 50 g + 2 +50 g	
14	Great Apes	Rice + eggs + vegetables + fruits + pellets + insects	4 kg	4 kg	
15	Lesser Apes (Gibbons)	Rice + eggs + vegetables + fruits + pellets + insects	1 kg	1 kg	
16	Lesser Primates	Fruits, Berries+ Flowers + Insects (Mealworms/roaches) + tree gum	150 g	150 g	
17	Malayan porcupine	Vegetables/leafy vegetables/pellets/fruits/legumes	550 gm	550 gm	
		Boiled egg-1	50 g	50 g	
18	Mexican Hairy Dwarf porcupine	Fruits/leaves/flowers/birds/seeds	300 g	300 g	
19	Otter	Fish/mussels	1.5 kgs	1.5 kgs	
20	Pacas/Hyrax	Vegetables + fruits +leaves + herbs + insects + pellets	500 g	500 g	
21	Large Macropods (Red and Grey Kangaroos)	Hay + green pellets	7 kgs + 1.5 kgs	1.5 kg	
22	Small Macropods (Wallabies & Tree Kangaroos)	Hay + green pellets	2 kgs + 2.5 kgs	2 kgs + 2.5 kgs	
23	Tamandua	Mixed feed (insects + vegetables + fruits + pellets + pinkies	500 g	500 g	
		egg	2 nos	2 nos	
24	Aardvark	Insect soup (insects +dog food + minced meat) + insects	1.5 kgs + 500 g	1.5 kgs + 500 g	
25	Meerkats/Hedgehogs	Vegetables	50 g	50 g	
		Insects	50 g	50 g	
		Eggs	1 egg	1 egg	

26	Oriental hornbill	Pied	Fruits & Berries	150 gm	150 gm
			Boiled egg	50 gms	50 gms
			Papaya and mealworm	100 gms	100 gms
27	Painted Storks		Fish/ fingerlings	300 g	300 g
28	Peafowl		Pellets + Grains + Green Leafy Vegetable	200 g	200 g
29	Parrots (Macaws & Amazons)		Vegetables + Fruits+ seeds +nuts	200 g	200 g
30	Red Jungle fowl		Grains + Green Leafy Vegetable	50 g	50 g
31	Tortoise/Turtles /Iguanas (Herbivore)		Vegetables/ Fruits/leaves + Cuttlefish bone as Calcium supplement	10% body weight	10% body weight
32	Turtles/ /Lizards/ Geckos (Carnivore)		Chicken / Fish/ Beef/Mutton/Mice/Insects	10% body weight	10% body weight
33	Pythons/snakes		Quails/rabbits/rats/chicken	10% body weight	10% body weight
34	Small Crocodile species/Sub adult crocodiles (except gharial)		Chicken/Beef/Mutton	1.5 kg/ week	1.5 kg/ week
35	Large Crocodiles		Chicken/Beef/Mutton	5 kg/ week	5 kg/ week
36	Gharial		Fish	2.5 kg / week	2.5 kg / week
37	Tiger Salamander		Insects	Ad libitum	Ad libitum

Note: All the diets and weights above mentioned are generalised and averaged weights. Individual diets for animals depend on the individual animal as well as age, their health, season and based on the Veterinary Officer's discretion.

14. Vaccination Schedule of Animals

Sl. No	Species	Disease Vaccinated For	Name of the Vaccine and dosage/quantity used	Periodicity
1	Feline	FPL, Calcivirus, Herpesvirus, Rabies & CDV	Biofel PCHR, Purevax CDV/1ml/ total 2 doses of each per individual	Annually
2	Ursids	Canine Distemper, Parvovirus, Hepatitis, Respiratory Diseases Induced by CAV-2 and Influenza Virus & Leptospirosis Caused by <i>L.canicola</i> , <i>L. icterohaemorrhagiae</i> , Rabies	DHPPi/L, Antirabies/ 1ml/ total 2 doses of each per individual	Annually

3	Canine	Canine Distemper, Parvovirus, Hepatitis, Respiratory Diseases Induced by CAV-2 and Influenza Virus & Leptospirosis Caused by <i>L. canicola</i> , <i>L. icterohaemorrhagiae</i> , Rabies	DHPPi/L, Antirabies/ 1ml/ total 2 doses of each per individual	Annually
4	Herbivores	Foot and mouth disease, Hemorrhagic Septicemia & Black Quarter	Rksha triovac/1ml/individual	Annually
5	Primates	Tetanus & Rabies	Tetanus Toxoid 0.5ml/individual Nobivac-R 1ml/individual	Annually

15. De-worming Schedule of Animals

Sl. No.	Species	Drug used	Periodicity
1	Felines	Praziquantel, Pyrantel Pamoate and Fenbendazole & Ivermectin	Quarterly
2	Canines	Praziquantel, Pyrantel Pamoate and Fenbendazole & Ivermectin	Quarterly
3	Ursids	Albendazole & Ivermectin	Quarterly
4	Anteaters	Albendazole	Quarterly
5	Primates	Albendazole	Quarterly
6	Hippopotamus	Albendazole	Quarterly
7	Spotted deer & Sambar deer	Fenbendazole & Ivermectin	Quarterly
8	Aves	Fenbendazole	Quarterly
9	Reptiles	Fenbendazole	Quarterly

16. Disinfection Schedule

Sl. No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1.	All species	Night cell	Liq. Kohrsoline TH 2 ml /L of water and rinsing	Daily
			Pow. Vircon S 2 % solution and spray	Once in Week
2.		Hospital, Operation Theater and Post mortem room	35 ml of formalin (40 percent formaldehyde) + 10 gm Potassium Permanganate per cubic meter of space and fumigation.	Fortnight
			Liq. Kohrsoline TH 2 ml / l of water and rinsing	Daily

			Pow. Vircon S 2 % solution and spray	Once in Week
3		Animal Feed Room	35 ml of formalin (40 percent formaldehyde) + 10 g potassium permanganate per cubic metre of space and fumigation	Fortnight
			Liq. Kohrsoline TH 2 ml / 1 of water and rinsing	Daily
			Pow. Vircon S 2 % solution and spray	Once in Week
4	All species	Foot Bath Passage Area between Paddocks/ Inner circular Road / Outer circular Road	35 ml of formalin (40 percent formaldehyde) + 10 g potassium permanganate per cubic metre of space and fumigation	Fortnight
			Liq. Kohrsoline TH 2 ml / 1 of water as foot dip solution.	Cleaning foot bath on daily basis
			Pow. Vircon S 2 % in water and spraying	Daily basis - evening

17. Health Check-up of employees for Zoonotic Diseases

Sl. No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1	Zoo personnel were tested for Tuberculosis, Leptospira, Brucella, Toxoplasma and Chlamydia Pneumoniae		20.06.2022	All personnel tested negative
2	Zoo personnel were tested for Tuberculosis, Leptospira, Brucella, Toxoplasma and Chlamydia Pneumoniae		20.11.2022	All personnel tested negative

18. Development Works carried out in GZRRC during the year

The GZRRC had in the past one year operationalised two more facilities to aid its efforts in rescuing of wildlife. It has operationalised the Rescue and Rehabilitation Centre for rescue of threatened wildlife and an extension facility for the Satellite Rescue Centre for leopards. Both the facilities will be used for the care of various wild animals.

Rescue and Rehabilitation Centre

The Rescue and Rehabilitation Centre at GZRRC was operationalized on 25th, July 2022 at GZRRC. The Rescue and Rehabilitation Centre is divided into 10 wings (A-K) with 73 enclosures having large paddocks, kraals and night houses to house various species of rescued animals. Within the Rescue and Rehabilitation Centre, there is an upcoming State-of-the-Art veterinary hospital complete with top notch medical facilities. The hospital separate wildlife care units for various species shall be the best animal hospital in the country. The animals at the Rescue and Rehabilitation Centre live in large and spacious enclosures that resemble their natural habitats. Care was taken during the design and construction phase of the enclosures such that the habitats created replicated the natural environments of the concerned species. Environmental enrichment is provided in the form of elevated wooden logs and platforms which can be useful for scraping and climbing. Squeeze cages built into passage ways are provided in each enclosure for physical restraint of animals during medical procedures. The centre will provide life time care of the highest quality for rescued wild animals.



Overall view of enclosures for large carnivores at Rescue and Rehabilitation Centre

Front view of enclosure for large carnivores at Rescue and Rehabilitation Centre





Environmental enrichment in an enclosure at Rescue and Rehabilitation Centre

Landscaping and enrichment in an enclosure at Rescue and Rehabilitation Centre



Woven wire mesh enclosure for Primates at Rescue and Rehabilitation Centre

2) Extension of Satellite Rescue Centre for Leopards

GZRRC had operationalized the extension of Satellite Rescue Centre for Leopards on 5 acres of land. The centre constitutes eight large enclosures for housing rescued leopards. It is proposed to house 80 leopards at this facility. Each enclosure comprises one large paddocks with five-night cells. Paddock area for each enclosure is about 1100 square meters and constitutes enrichment with many climbing structures for the animals. Every night cell is connected to an outdoor area. A kraal is provided to house individual animals. Squeeze tunnels for observing and treating animals are provided for each enclosure. All the night cells are air-conditioned with enrichment provided.



One of the enclosures at the extension of Satellite Rescue Centre for leopards



Side profile of an enclosure at the extension of Satellite Rescue Centre for leopards



Paddock area of an enclosure at the extension of Satellite Rescue Centre for leopards



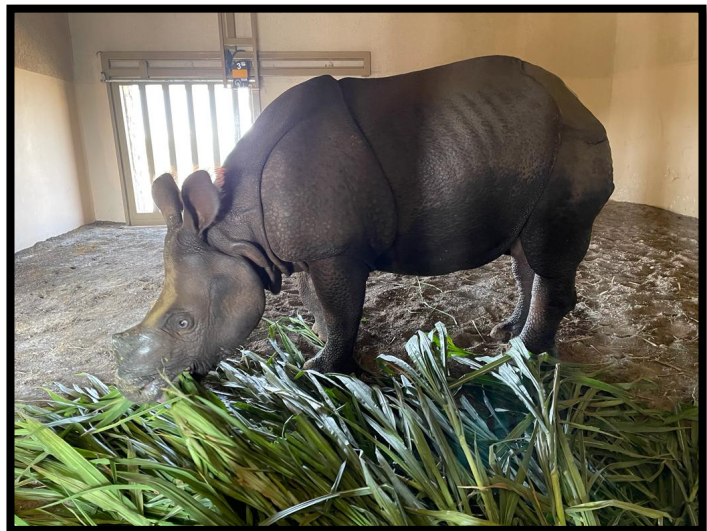
Night cell of an enclosure at the extension of Satellite Rescue Centre for leopards

3) Enclosure for Greater One Horned Rhinoceros (*Rhinoceros unicornis*):

In the month of December 2022, GZRRC has operationalized the enclosure for Greater One Horned Rhinoceros. The enclosure is spread in an area of 3.35 acres that include a large paddock with water pools and wallowing areas along with kraals and night houses. GZRRC has a long-term breeding programme of Greater One Horned Rhinoceros and as part of the programme, it received a pair of young Greater One Horned Rhinoceros from Assam State Zoo and Botanical Garden, Guwahati. It is envisaged that the current facility for Greater One Horned Rhinoceros will play a great role in the breeding programme of the species at GZRRC.



Greater one horned rhinoceros in the kraal at GZRRC



Greater one horned rhinoceros in the night house at GZRRC

4) **Asiatic Lion Care, Medical Research and Hospital:** Gujarat, in particular the Saurashtra regions, is the only home for the Asiatic Lions. GZRRC has a long-term plan for caring and captive breeding of Asiatic Lions. In this regard, GZRRC had started the design and construction of an Asiatic Lion Care, Medical Research and Hospital Centre during the past

one year. The facility will be spread in an area of about 49.5 acres and shall constitute large enclosures with state-of-the-art facilities like hospital and a research centre. Currently the facility is under construction and shall be completed soon.

Evaluation team from CZA, Dr. A B Shrivastav and Dr. Devender Thakur inspecting the design and construction activity at the proposed site for Asiatic Lion Care, Medical Research and Hospital Centre.



5) Quarantine Centre for Endangered Parrots

GZRRC aims at conservation of endangered species through planned conservation breeding. Maintaining the health of the animals and stopping the spread of any infectious diseases is of paramount importance at GZRRC. In the month of February 2023, GZRRC operationalized a state-of-art quarantine centre for birds, specifically designed for Spix’s macaws, Lear’s macaws and St Vincent amazon that were received by GZRRC as a part of its conservation breeding programme. The facility with spacious enclosures was designed keeping in mind the requirement of the birds and quarantine requirements such as safe distance from nearby captive facilities, protection from predators, a central fully equipped hospital to carry out clinical, laboratory and post-mortem, individual wards with buffer zones to accommodate different groups of birds and a climate control system to maintain required temperature and humidity congenial to the birds. All birds can be observed without being disturbed or with

minimal stress. The design of the facility is such that it minimizes the risk of infectious diseases being introduced. It is hoped that the facility will be successful for screening birds against various diseases.



Quarantine Centre for Endangered parrots

19. Education and Awareness programmes during the year

GZRRC is founded on the principles of spreading knowledge and awareness about the twenty-first century problems facing biodiversity conservation and finding equitable solutions keeping in mind the needs of the impoverished socio-economic societies. In this regard, GZRRC has identified three major focus areas to target its education and outreach programme.

1. Rescue and rehabilitation of animals involved in man-animal conflict
2. Animal welfare
3. Conservation breeding of endangered species.

Keeping this in mind, GZRRC co-organized a zoo biologist capacity enhancement workshop with the Central Zoo Authority to inculcate the modern tenets of conservation management of species. Zoo biology as a science has proliferated in the last few decades in India. However, there is an urgent need to focus on the rapid deployment of resources in this sector and create the man power required to cater to the rising requirement for professional zoo biologists, animal keepers and zoo professionals.

This capacity enhancement workshop was attended by 52 zoo biologists from all over the country who learned new skills and approaches from world renowned zoo biologists, veterinarians, zoo-design architects.

20. Important Events and happenings

Mid-term Evaluation of GZRRC by Central Zoo Authority

A mid-term evaluation of GZRRC was carried out by Central Zoo Authority (CZA). A team consisting of Dr. A B Shrivastav, Former Director, School of Wildlife Forensics and Health, Nanaji Deshmukh Veterinary Science University, Jabalpur and Dr. Devender Thakur, Evaluation and Monitoring Officer (EMO), CZA, had been deputed to GZRRC by CZA. The team inspected various facilities of GZRRC on 4.6.2022 which commenced at 9 am and went till late evening. The team inspected the Satellite Rescue Facility, Quarantine facility and various other facilities of GZRRC and had a close view of animals and enclosures. The team evaluated the status of compliance of conditions of recognition which was provided to GZRRC during earlier visit. They also provided valuable inputs in some parameters into the upkeep of animals, their enrichment and maintenance of enclosures. The team appreciated the management and the up keep of the facilities at GZRRC and also expressed satisfaction with respect to compliance made to the conditions that have been stipulated by CZA.



CZA team inspecting animal records at Satellite Rescue Facility



CZA team given demonstration of the practices being followed for sterilization and disinfection of utensils used for feeding animals at GZRRC



CZA team inspects the night houses of animals at the Rescue and Rehabilitation Centre

Visitors at GZRRC

Visitors from India:

Zoo Directors visit to GZRRC

GZRRC as a part of its out-reach programme, has been supporting various zoos in India over the past few years. In the month of November 2022 GZRRC had invited Zoo personnel of various zoos in India to visit GZRRC. Directors and personnel representing 11 zoos visited GZRRC. All invitees were personally taken on a guided tour of the centre by GZRRC's executive staff to give an overview of various wildlife conservation activities undertaken by GZRRC. The visiting personnel were highly impressed by the design of animal enclosures and other infrastructure at GZRRC, as well the technical expertise of our staff. All visiting personnel appreciated the efforts of GZRRC in rescuing and conserving wildlife. The personnel also discussed about various avenues of collaboration with GZRRC.

List of visitors:

1. Dr. Vibhu Parkash, Principal Scientist, Vulture Conservation Centre (Pinjore), Haryana
2. Dr. Paul Raj, Chairman, Chennai Snake Park Trust (Chennai), Tamil Nadu
3. Dr. Rajesh Patel, Officer-In-Charge, Dr. Shyamaprasad Mukherjee Zoological Garden (Surat), Gujarat
4. Mr. Bipul Chakraborty, Director, Tata Steel Zoological Park (Jamshedpur), Jharkhand
5. Mr. Ashish Narayan Goswami, Officer-In-Charge, People For Animals (Wardha), Maharashtra
6. Dr. C Zupeni Tsanglai, Director, Nagaland Zoological Park (Rangapahar), Nagaland
7. Dr. Rathin Barman, Sr. Manager, Centre for Wildlife Rehabilitation and Conservation (Bokakhat), Assam
8. Ms. Pramila Rajan, Director, Madras Crocodile Bank Trust (Mamallapuram), Tamil Nadu
9. Dr. Abhishek Kumar, Director, Sakkarbaug Zoological Park (Jungadh), Gujarat
10. Dr. Sanjay Tripathi, Director, Veermata Jijabai Bhosle Udyan Zoo (Mumbai), Maharashtra
11. Dr. Raj Kumar Jadhav, Director, Rajiv Gandhi Zoological Park (Pune), Maharashtra



Dr. Vibhu Prakash, Principal Scientist of the Vulture Conservation Breeding Centre Pinjore, visited at GZRRC

Mr. Vivaan Karani along with Bipul Chakrabarty, Mr. Ashish Goswami and Dr. Sanjay Tripathi inspecting Animal ambulance at GZRRC



Dr. Brij Kishor Gupta with Bipul Chakrabarty, Mr. Ashish Goswami, Dr. Sanjay Tripathi, Dr. Rathin Barman and Dr. Rajkumar Jadhav at GZRRC

Ms. Pramila Rajan with Dr. Boon and explaining record keeping at GZRRC facility.



Officials from MoEF&CC, CZA and various State Forest Departments visits GZRRC

Shri Chandra Prakash Goyal IFS, Director-General of Forest & Special Secretary, Ministry of Environment, Forests & Climate Change, Dr. Sanjay Kumar Shukla IFS, Member Secretary, Central Zoo Authority (CZA) and Ramesh Kumar Pandey IFS, Inspector-General of Project Elephant, visited GZRRC from 11th December to 12th December 2022. The officials inspected various facilities at GZRRC and reviewed the upkeep of animals, on-going rescue activities and conservation breeding programmes at GZRRC. The officials appreciated the initiatives and rescue efforts of various wild animals by GZRRC from various zoos and rescue centres from within and outside India. They provided key inputs for the improvement of enclosures and upkeep of animals at GZRRC, and recommended ways to efficiently advance in rescue of wild animals and conservation breeding programmes in the future.



Mr. Vivaan Karani briefing the officials about Satellite Rescue Centre for leopards at GZRRC

MoEF&CC officials having a close view of leopard enclosures at Satellite Rescue Centre



Visitors from Karnataka Forest Department

Two officials from the Karnataka Forest Department visited GZRRC on 23rd January 2023. Smt. Deep J Contractor, IFS (Deputy Conservator of Forest, Working Plan, Mysore) and Sri. Saurabh Kumar, IFS (Deputy Conservator of Forest, Mysuru Wildlife) from the Forest Department of Karnataka visited GZRRC. The officials were given a full tour of the Satellite Rescue Centre for leopards and shown the inner workings of GZRRC in terms of the upkeep and the scientific management of rescued leopards. During the visit, various avenues of collaboration between GZRRC and Karnataka Forest Department were explored.



Officials from the Karnataka Forest Department

Visit by Additional Director General of Forest (Wildlife), MoEF&CC, Government of India

Sri. Bivash Ranjan, IFS, Additional Director General of Forest (WL), MoEF&CC, visited GZRRC on 27th January 2023. He was highly impressed by the welfare standards and infrastructure for captive animals housed at GZRRC. The ADGF appreciated the efforts by GZRRC in providing the best of animal care for animals at its facilities and ensured support from the ministry for GZRRC efforts in wildlife conservation and rescue.



Sri. Bivash Ranjan, IFS, Additional Director General of Forest (ADGF) at the Satellite Rescue Centre

Assam State Forest Department visits GZRRC

A team of five Forest Officials from the Assam State Forest Department visited the GZRRC on 10th February 2023 to study various aspects of management, enclosure design and captive animal welfare. The team constituted Sri. Ashwini Kumar, IFS (Divisional Forest Officer, Assam State Zoo cum Botanical Garden), Smt. Jayashree Naiding IFS (Divisional Forest Officer, Guwahati Wildlife Division), Sri. Tejas Mariswamy IFS (Divisional Forest Officer, Cachar division), Sri. Sandeep Bendi (Divisional Forest Officer, Dibrugarh) and Sri. Rohini Ballav Saikia, IFS (Divisional Forest Officer, Kamrup (East)). The officers were taken around various facilities at GZRRC and were told about the significant developments that took place at GZRRC, and the role played by GZRRC in wildlife rescue, conservation breeding and animal health care. The officials appreciated the facilities at GZRRC and the hospitality extended by the officials at GZRRC.



Officials from the Assam Forest Department

Visitors from Government of Andhra Pradesh

Officials from Andhra Pradesh State Government visited GZRRC on 11th February 2023. The team included Dr. Shanti Priya Pandey, IFS, APCCF (Wildlife), Sri. Rahul Pandey, IFS, Managing Director, AP Markfed, Sri. Selvam Chandiran IFS, (Deputy Conservator of Forests, Sri Venkateshwara Zoological Park, Tirupati), Smt. Nandini Salaria, IFS, (Deputy Conservator of Forests, Indira Gandhi Zoological Park, Visakhapatnam), Sri. Anant Sankar, IFS (Divisional Forest Officer, Visakhapatnam) and Dr. V. Srinivas veterinarian surgeon at Indira Gandhi Zoological Park, Visakhapatnam. The team was given tour of all the facilities of GZRRC by the management of GZRRC. All officials appreciated the facilities and the upkeep of various animals at GZRRC.



Officials from the Andhra Pradesh Forest Department

Visitors from abroad:

Dr. Janine Brown, a Research Physiologist and Head of the Endocrinology Laboratory at the Smithsonian Conservation Biology Institute (SCBI), USA visited GZRRC from 09.03.2023 to 12.03.2023. She visited various facilities and appreciated the maintenance and upkeep of the facilities. During her visit, she discussed about possible collaborative avenues between GZRRC and SCBI in the field of behaviour, reproductive endocrinology and stress management of captive animals for better management and conservation of endangered species, both in captivity and in the wild. She also gave her valuable inputs in the design of upcoming laboratories at GZRRC



Mr. Joe Wasilewski, Wildlife Expert at University of Florida - Fort Lauderdale Research and Education Centre and a world-renowned expert on crocodiles and King Cobra from USA visited GZRRC from 20.03.2023 to 24.03.2023. During the visit, he visited various facilities of GZRRC, particularly the Satellite Rescue Centre for crocodiles. He was delighted on the efforts put by the staff at GZRRC to ensure a high level of welfare for individual animals and was satisfied with the arrangements made for lifetime care of rescued muggers at GZRCC.

Mr. Kieran Stanley, CEO (dan pearlman Group), a world-renowned expert on Zoo designing from Germany visited GZRRC from 20.3.2023 to 21.03.23. He is one of the consultants for the design of various facilities at GZRRC. He visited various facilities at GZRRC and held discussions with the engineering department of GZRRC with regard to GZRRC master layout as well as reviewed designs of various enclosures. He also visited the site where the zoo is being proposed and gave his suggestions on the same.



Invitees from abroad:

Veterinarians from Ethiopia

One of the key objectives of GZRRC is to provide the best clinical veterinary care to the animals in its centres and researching novel diagnostic and therapeutic approaches for wildlife species. Wildlife veterinarians play a pivotal role in shaping the future of global biodiversity conservation. Training future zoo and wildlife veterinarians to promote wild animal health is one the focal areas of GZRRC. GZZRC has been collaborating with many veterinary institutions, veterinarians and other scientists to meet the modern challenges of biodiversity conservation. As a part of this strategy, GZRRC provides short term internship opportunities to young veterinary professionals. These internships provide the interns with a diverse skillset and repository of experience that prepares them for the varied challenges faced while managing

the care and treatment of wild animals in captivity. Three young veterinary professionals from Ethiopia participated in the GZRRC internship opportunity from September to November 2022. Dr. Takuma Fete received her Master of Veterinary Science from Addis Ababa University while Dr. Hiwot Tilahun and Dr. Abowork Fekadu received their Bachelors in Veterinary Science from Jimma University and Mekelle University respectively. The internship was an excellent opportunity for the young veterinarians to



gain hands on experience of treating and caring for a diverse array of captive wildlife. GZZRC is privileged in being able to shape the careers of these future veterinary professionals and conservationists.

Zoo Biologist Workshop at GZRRC

Greens Zoological, Rescue & Rehabilitation Centre (GZRRC) was given the opportunity to co-organize the capacity enhancement workshop for zoo biologists during 21st– 23rd March 2023. GZRRC sent invitations to all large zoos and medium zoos for attending the workshop. Nominations were received for 45 participants from over 43 zoos spanning 18 different states. GZRRC accepted all nominations and arranged the travel of all participants for attending the said workshop. Till date, this is the largest zoo biologist workshop in terms of participation, which gave a rare opportunity for zoo professionals to interact with their peers. The entire GZRRC management team worked tirelessly to organize the workshop.



Participants of the Zoo Biologists workshop at GZRRC



Sri. Dhanraj Nathwani addressing participants of Zoo Biologist Workshop during opening ceremony of the workshop

GZRRC team conversing with the participants on wildlife issues



Dr. Brij Kishor Gupta delivering a talk during the workshop

Participants interacting with the staff of the Satellite Rescue Centre for Leopards





Hands on training by Dr. Sachin Patil and Dr. Pau Puigcerver on endoscopy in birds

Dr. Petra Wolf, Chief Advisor on Animal Nutrition giving a lecture on animal nutrition



Mr. Ajay Kartik explaining the participants on the husbandary practices for crocodiles and other reptiles

*Dr. Abhishek Kumar IFS,
Director,
Sakkarbaug
Zoological Park delivering a
keynote talk on Conservation
Breeding of Asiatic lions at
Sakkarbaug Zoological Park*



21. Seasonal special arrangements for upkeep of animals

GZRRRC has implemented a range of measures to maintain the health and wellbeing of animals during different seasons. These measures include modifying diets by adding or removing food items based on seasonal requirements, as well as implementing husbandry practices such as heating, reducing light and temperature intensity, water and sun baths.

Summer season arrangements are made:

Eco-friendly thatching and shade nets are provided in paddock areas to provide shelter and cooling.

HVAC systems are used to control the temperature in the night cells of animals.

Animals are provided with sufficient water at all times to prevent dehydration. Glucose, electrolytes, multivitamins, and other supplements are added to drinking water and food.

Rain guns are installed in enclosures, and water is sprayed to keep the enclosure cool and moist. Foggers and misters are also installed depending on the species requirements.

Water-rich fruits and vegetables such as cucumber, watermelon, musk melon, oranges, pineapple, and mangoes are provided to bears, primates, birds, and herbivores.

Winter season arrangements:

HVAC systems are used to heat night cells and keep animals warm.

Cozy bedding made from paddy straw is provided in retreating areas of herbivores for warmth and heat regulation, as well as comfortable resting areas.

Special arrangements such as infrared light and heat sources are made for hibernating animals like reptiles, with rocky and sandy areas provided for basking. Birds are provided with brooders for heating.

Seasonal fruits and fat-rich foods, such as oily seeds, are provided to birds and animals.

Salt-licks are provided to herbivores during the winter season.

22. Research Work carried out and publications

Greens Zoological Rescue and Rehabilitation Center was founded with the vision to conserve global biodiversity and promote animal welfare while ex-situ in-situ linkages by raising awareness. Modern zoos are institutions for the conservation of threatened fauna, but they also have a responsibility to create and spread knowledge about nature, biodiversity, and threatened fauna to create awareness and pro-conservation sentiments. Zoos have a responsibility to educate, inform and sensitize policy makers about the emerging problems and their solutions in conservation science. Therefore zoo-based research is of utmost importance to the long-term realization of GZRRC's vision and mission goals.

GZRRC is one of the first fully-digitized zoos of India, where we collect and collate information pertaining to all animals in our facility using handheld digital tools. All animal-related data, such as animal behaviour, feeding records, health status, life-history parameters are stored in a digital database. There are several opportunities for zoo-based research at GZRRC, among them we have focused on the following areas.

1. Post-occupancy Evaluations for rescued leopards:

GZRRC houses several species of animals that have been rescued from other zoological institutions where they were housed in sub-optimal conditions. We have recently initiated a study to measure the welfare status of rescued leopards housed at our facility. Using a combination of behavioural and physiological welfare indicators, we have initiated a study that measures and monitors the welfare status of the animals housed in our facility to understand the effectiveness of our housing and management practices.

Our keepers are trained to collect behavioural welfare data such as activity budget, space utilization patterns and enrichment usage. Our veterinarians monitor the blood serum level of corticosterone levels of the leopards using positive reinforcement methods that cause minimal stress to the animals. Along with that we also monitor the social interactions of the leopards to understand the levels of agonistic interactions in rescued animals.

Through this study we will be able to answer questions that will help us understand the unique housing and management requirement of leopards in captivity. Some of the questions posed are as follows.

1. Are the welfare indicators of pair-housed leopards different from group-housed animals?
2. How to improve the enclosure design for leopards housed at GZRRC?
 - a. Effects of arboreal pathways on the welfare of leopards.
 - b. Effects of natural vegetation on the welfare of leopards.

- c. Effects of feeding enrichment on the welfare and social interaction of group-housed and pair-housed leopards.
3. The effect of positive keeper-animal interaction on the welfare of leopards.

2. Diet of animals

GZRRC houses more than 130 species of indigenous and exotic species in its facilities. The dietary requirement for each species varies significantly based on their unique niche characteristics.

In zoos and captive facilities there is minimal or no seasonal variation in diet of animals. Hence it is important to understand the relationship between diet and welfare in animals housed at zoological institutions. In this study, we compare the welfare status of animals when provided with traditional zoo-based diets with minimal seasonal variations (meeting all physiological requirement of the species) and compare the same with the welfare outputs when animals are provided with seasonally varying diets that meet their biological as well as behavioural requirement. In this study we also aim to understand the difference between different food presentation techniques (natural and artificial) and their welfare outcomes.

Presently we are collecting information on all the above-mentioned topics and finalizing our research design.

23. Conservation Breeding Programme of the GZRRC

Conservation of Endangered Parrots:

Conservation breeding of threatened species is an important mandate for GZRRC. GZRRC manages carefully planned conservation breeding programmes to create a genetic safety net for rare and endangered species. The goal of these captive breeding programmes is to ensure the sustainability of a healthy, genetically diverse, and demographically stable captive population for the long-term future of many threatened species. GZRRC is motivated to protect these species in their native habitats so that these species can thrive in the wild playing their ecological role. For ensuring success of its species-survival plans, GZRRC works within a network of reputed institutions around the world to bring species together for ex-situ breeding programme. As a part of this initiative, GZRRC initiated conservation breeding programme of globally threatened species like St. Vincent amazon (*Amazona guildingii*), Spix's macaw (*Cyanopsitta spixii*) and Lear's Macaw (*Anodorhynchus leari*). GZRRC received 8 St. Vincent amazons (4:4), 26 Spix's macaws (12:14) and 4 Lear's macaws (0:4) from Association for the Conservation of Threatened Parrots (ACTP), Germany.

The birds are currently housed in the state-of-the-art breeding facility at GZRRC that was specially designed to meet their species-typical requirement. These birds will be part of the global breeding programme for these species. GZRRC is one of the very few facilities in this world that has the necessary expertise and infrastructure to maintain a captive population of these birds for the purpose of ex-situ conservation. The captive population of these species at GZRRC shall act as an insurance population of the species. It is hoped that the captive breeding of these species at GZRRC could provide individuals which can then be released into the wild.

Vulture Breeding Centre

From once being ubiquitous across the Indian subcontinent, vultures suffered a rapid population decline due to diclofenac poisoning. Concerned by the mass-scale deaths of vultures as a result of diclofenac poisoning, IUCN placed vultures in the critically endangered list of the red data book. The White-rumped vulture (*Gyps bengalensis*) not long ago was a very common species. Today it remains restricted to only a few isolated protected areas in the country.

GZRRC has initiated conservation breeding of many indigenous threatened species. It is creating a separate facility called the “Conservation Breeding Centre for Indian Species” that will focus on conservation breeding of selected threatened Indian fauna. Under the gamut of this programme, GZRRC included White-rumped vulture in its list of species for conservation breeding. Currently the breeding centre is at the designing phase and in the near future GZRRC enclosure design team are working closely with Dr. Vibhu Prakash to create the finest vulture conservation breeding centre in India. It is hoped that the centre will result in securing a viable future for the extant vulture population of India.



Proposed layout plan of the Vulture Breeding Centre at GZRRC

Proposed 3D design of a breeding enclosure for Vultures



24. Animal acquisition / transfer during the year 2022-2023

Sl.no	Species	Number M:F:U:T	Name of Zoo/Institution	Date of Arrival at GZRRC
1	Nile hippopotamus (<i>Hippopotamus amphibious</i>)	1:1:0:2	Arignar Anna Zoological Park, Vandalur, Chennai, Tamil Nadu	01 April 2022
2	American black bear (<i>Ursus americanus</i>)	4:6:0:10	Fauna Zoo De Mexico, Mexico	19 May 2022
3	Anteater sp. (<i>Tamandua</i> sp.)	2:2:0:4	Fauna Zoo De Mexico, Mexico	19 May 2022
4	Tiger (<i>Panthera tigris</i>) (hybrid)	9:18:0:27	Fauna Zoo De Mexico, Mexico	19 May 2022
5	Bob cat (<i>Lynx rufus</i>)	5:5:0:10	Fauna Zoo De Mexico, Mexico	19 May 2022
6	Cougar (<i>Puma concolor</i>)	5:5:0:10	Fauna Zoo De Mexico, Mexico	19 May 2022
7	Jaguar (<i>Panthera onca</i>)	4:5:0:9	Fauna Zoo De Mexico, Mexico	19 May 2022
8	Jaguarundi (<i>Herpailurus yaguarondi</i>)	2:2:0:4	Fauna Zoo De Mexico, Mexico	19 May 2022
9	Leopard (<i>Panthera pardus</i>)	3:4:0:7	Fauna Zoo De Mexico, Mexico	19 May 2022
10	Mexican hairy dwarf porcupine (<i>Sphiggurus mexicanus</i>)	5:5:0:10	Fauna Zoo De Mexico, Mexico	19 May 2022
11	Ocelot (<i>Leopardus pardlis</i>)	2:1:0:3	Fauna Zoo De Mexico, Mexico	19 May 2022
12	Dwarf caiman (<i>Paleosuchus palpebrosus</i>)	5:5:0:10	Madras Crocodile Bank Trust (MCBT), Mamallapuram, Tamil Nadu	29 May 2022
13	Indian flapshell turtle (<i>Lissemys punctata</i>)	5:5:0:10	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
14	Gharial (<i>Gavialis gangeticus</i>)	1:1:0:2	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
15	Morelet's crocodile (<i>Crocodylus moreletii</i>)	0:2:0:2	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
16	Nile crocodile (<i>Crocodylus niloticus</i>)	0:1:0:1	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
17	Saltwater crocodiles (<i>Crocodylus porosus</i>)	4:4:0:8	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
18	Siamese crocodile (<i>Crocodylus siamensis</i>)	0:13:0:13	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
19	Indian star tortoise (<i>Geochelone elegans</i>)	1:4:0:5	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
20	Travancore tortoise (<i>Indotestudo travancorica</i>)	2:8:0:10	MCBT, Mamallapuram, Tamil Nadu	29 May 2022
21	Whitaker's boa (<i>Eryx whitakeri</i>)	4:6:0:10	MCBT, Mamallapuram, Tamil Nadu	29 May 2022

22	Lion (<i>Panthera leo</i>) (hybrid)	17:23:0:40	Fauna Zoo De Mexico, Mexico	09 June 2022
23	Smooth coated otter (<i>Lutrogale perspicillata</i>)	1:1:0:2	Dr. Shyamaprasad Mukherjee Zoological Gardens, Surat, Gujarat	06 July 2022
24	Gharial (<i>Gavialis gangeticus</i>)	1:7:0:8	MCBT, Mamallapuram, Tamil Nadu	12 July 2022
25	Indian rock python (<i>Python molurus</i>)	0:5:0:5	MCBT, Mamallapuram, Tamil Nadu	12 July 2022
26	Morelet's crocodile (<i>Crocodylus moreletii</i>)	0:2:0:2	MCBT, Mamallapuram, Tamil Nadu	12 July 2022
27	Nile crocodile (<i>Crocodylus niloticus</i>)	0:5:0:5	MCBT, Mamallapuram, Tamil Nadu	12 July 2022
28	Siamese crocodile (<i>Crocodylus siamensis</i>)	1:1:0:2	MCBT, Mamallapuram, Tamil Nadu	12 July 2022
29	Hog deer (<i>Axis porcinus</i>)	1:2:0:3	Rajkot Zoological Park, Rajkot, Gujarat	15 July 2022
30	Bengal tiger (<i>Panthera tigris tigris</i>)	1:1:0:2	G.B. Pant High Altitude Zoo, Tallital, Uttarakhand	24 July 2022
31	Bengal tiger (<i>Panthera tigris tigris</i>)	1:0:0:1	Van Vihar National Park Zoo, Bhopal, Madhya Pradesh	24 July 2022
32	Leopard (<i>Panthera pardus</i>)	3:11:0:14	Sakkarbaug Zoological Park, Junagadh, Gujarat	01 August 2022
33	Leopard (<i>Panthera pardus</i>)	25:11:0:36	Sakkarbaug Zoological Park, Junagadh, Gujarat	04 August 2022
34	Bengal tiger (<i>Panthera tigris tigris</i>)	1:0:0:1	Gandhi Zoological Park, Gwalior, Madhya Pradesh	06 August 2022
35	Nile hippopotamus (<i>Hippopotamus amphibious</i>)	0:1:0:1	Gandhi Zoological Park, Gwalior, Madhya Pradesh	06 August 2022
36	Indian rock python (<i>Python molurus</i>)	3:3:0:6	National Zoological Park, New Delhi	04 September 2022
37	Marsh crocodile (<i>Crocodylus palustris</i>)	1:86:0:87	MCBT, Mamallapuram, Tamil Nadu	24 September 2022
38	Alligator snapping turtle (<i>Macrochelys temminckii</i>)	0:0:37:37	Resqink Association of Wildlife Welfare (RAWW), Mumbai, Maharashtra	10 October 2022
39	Antillean iguana (<i>Iguana delicatissima</i>)	0:0:12:12	RAWW, Mumbai, Maharashtra	10 October 2022
40	Argentine black and white tegu (<i>Salvator merianae</i>)	0:0:1:1	RAWW, Mumbai, Maharashtra	10 October 2022
41	Ball python (<i>Python regius</i>)	0:0:13:13	RAWW, Mumbai, Maharashtra	10 October 2022
42	Burmese python (albino) (<i>Python bivittatus</i>)	0:0:6:6	RAWW, Mumbai, Maharashtra	10 October 2022
43	Chinese pond turtle (<i>Mauremys reevesii</i>)	0:0:64:64	RAWW, Mumbai, Maharashtra	10 October 2022
44	Chinese striped necked turtle (<i>Mauremys sinensis</i>)	0:0:13:13	RAWW, Mumbai, Maharashtra	10 October 2022

45	Common snapping turtle (<i>Chelydra serpentina</i>)	0:0:8:8	RAWW, Mumbai, Maharashtra	10 October 2022
46	Emerald grass lizard (<i>Takydromus smaragdinus</i>)	0:0:4:4	RAWW, Mumbai, Maharashtra	10 October 2022
47	Green iguana (<i>Iguana iguana</i>)	0:0:139:139	RAWW, Mumbai, Maharashtra	10 October 2022
48	Keeled boxed turtle (<i>Cuora mouhotii</i>)	0:0:1:1	RAWW, Mumbai, Maharashtra	10 October 2022
49	Komodo dragon (<i>Varanus komodoensis</i>)	0:0:1:1	RAWW, Mumbai, Maharashtra	10 October 2022
50	Leopard gecko (<i>Eublepharis</i> sp.)	0:0:9:9	RAWW, Mumbai, Maharashtra	10 October 2022
51	Leopard tortoise (<i>Stigmochelys pardalis</i>)	0:0:15:15	RAWW, Mumbai, Maharashtra	10 October 2022
52	Pancake tortoise (<i>Malacochersus tornieri</i>)	0:0:9:9	RAWW, Mumbai, Maharashtra	10 October 2022
53	Red bellied short necked turtle (<i>Emydura subglobosa</i>)	0:0:26:26	RAWW, Mumbai, Maharashtra	10 October 2022
54	Red eared slider turtle (<i>Trachemys scripta elegans</i>)	0:0:27:27	RAWW, Mumbai, Maharashtra	10 October 2022
55	Tiger salamander (<i>Ambystoma tigrinum</i>)	0:0:2:2	RAWW, Mumbai, Maharashtra	10 October 2022
56	Vietnamese black breasted leaf turtle (<i>Geoemyda spengleri</i>)	0:0:5:5	RAWW, Mumbai, Maharashtra	10 October 2022
57	White lip python (<i>Leiopython albertisii</i>)	0:0:2:2	RAWW, Mumbai, Maharashtra	10 October 2022
58	Yellow pond turtle (<i>Mauremys mutica</i>)	0:0:112:112	RAWW, Mumbai, Maharashtra	10 October 2022
59	Marsh crocodile (<i>Crocodylus palustris</i>)	2:118:0:120	MCBT, Mamallapuram, Tamil Nadu	02 November 2022
60	African spurred tortoise (<i>Centrochelys sulcata</i>)	0:0:17:17	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
61	Bearded capuchin (<i>Sapajus libidinosus</i>)	0:1:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
62	Bennett's tree-kangaroo (<i>Dendrolagus bennettianus</i>)	1:0:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
63	Black crested mangabey (<i>Lophocebus aterrimus</i>)	1:1:0:2	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
64	Booted macaque (<i>Macaca ochreata</i>)	4:2:0:6	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
65	White cheeked gibbon (<i>Hylobates albibarbis</i>)	1:0:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
66	De Brazza's monkey (<i>Cercopithecus neglectus</i>)	1:0:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022

67	European hedgehog (<i>Erinaceus europaeus</i>)	0:0:2:2	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
68	Heck's macaque (<i>Macaca hecki</i>)	0:4:0:4	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
69	Indochinese silvered langur (<i>Trachypithecus germaini</i>)	3:0:0:3	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
70	Kloss's gibbon (<i>Hylobates klossii</i>)	0:1:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
71	Lar gibbon (<i>Hylobates lar</i>)	1:0:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
72	Lesser spot nosed guenon (<i>Cercopithecus petaurista</i>)	2:2:0:4	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
73	Meerkat (<i>Suricata suricatta</i>)	1:0:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
74	Moor macaque (<i>Macaca maura</i>)	5:3:0:8	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
75	Pileated Gibbon (<i>Hylobates pileatus</i>)	0:1:0:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
76	Red tailed guenon (<i>Cercopithecus ascanius</i>)	0:0:1:1	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
77	Tonkean macaque (<i>Macaca tonkeana</i>)	1:4:0:5	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
78	White throated guenon/Hoest's monkey (<i>Cercopithecus erythrogaster</i>)	0:2:0:2	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	07 November 2022
79	Swamp deer (<i>Rucervus duvaucelii</i>)	3:4:0:7	Nawab Wajid Ali Shah Zoological Garden, Lucknow, Uttarpradesh	26 November 2022
80	Green iguana (<i>Iguana iguana</i>)	0:0:74:74	Forest Department of Manipur, Manipur	09 December 2022
81	Mangrove snake (<i>Boiga dendrophila</i>)	0:0:6:6	Forest Department of Manipur, Manipur	09 December 2022
82	Tegu (<i>Salvator merianae</i>)	0:0:8:8	Forest Department of Manipur, Manipur	09 December 2022
83	Lion (<i>Panthera leo</i>) (hybrid)	1:1:0:2	Gandhi Zoological Park, Gwalior, Madhya Pradesh	10 December 2022
84	Greater one horned rhinoceros (<i>Rhinoceros unicornis</i>)	1:1:0:2	Assam State Zoo Cum Botanical Garden, Guwahati, Assam	11 December 2022
85	Okapi (<i>Okapia johnstonii</i>)	1:2:0:3	Al Bustan Zoological Centre, United Arab Emirates	16 December 2022
86	Bengal tiger (<i>Panthera tigris tigris</i>)	2:0:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
87	Checkered keelback snake (<i>Xenochrophis piscator</i>)	2:2:0:4	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
88	Common wolf snake (<i>Lycodon aulicus</i>)	1:1:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022

89	Dhole (<i>Cuon alpinus</i>)	2:2:0:4	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
90	Indian cobra (<i>Naja naja</i>)	3:6:0:9	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
91	King cobra (<i>Ophiophagus hannah</i>)	1:1:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
92	Leopard (<i>Panthera pardus</i>)	2:0:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
93	Marsh crocodile (<i>Crocodylus palustris</i>)	2:4:0:6	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
94	Montane trinket snake (<i>Coelognathus helena monticollaris</i>)	1:1:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
95	Peafowl (<i>Pavo cristatus</i>)	1:1:0:2	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
96	Rat Snake (<i>Ptyas mucosus</i>)	3:6:0:9	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
97	Russell's viper (<i>Vipera russelli</i>)	2:2:0:4	Pilikula Biological Park, Mangaluru, Karnataka	21 December 2022
98	Marsh crocodile (<i>Crocodylus palustris</i>)	0:120:0:120	MCBT, Mamallapuram, Tamil Nadu	29 December 2022
99	Himalayan goral (<i>Naemorhedus goral</i>)	2:2:0:4	Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal	16 January 2023
100	Himalayan tahr (<i>Hemitragus jemlahicus</i>)	1:0:0:1	Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal	16 January 2023
101	Mishmi takin (<i>Budorcas taxicolor taxicolor</i>)	0:2:0:2	Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal	16 January 2023
102	Red jungle fowl (<i>Gallus gallus</i>)	2:2:0:4	Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal	16 January 2023
103	Lion (<i>Panthera leo</i>)	2:3:0:5	Kamla Nehru Prani Sangrahalya, Indore, Madhya Pradesh	17 January 2023
104	Bengal tiger (<i>Panthera tigris</i>)	2:4:0:6	Kamla Nehru Prani Sangrahalya, Indore, Madhya Pradesh	17 January 2023
105	Bengal fox (<i>Vulpes bengalensis</i>)	1:1:0:2	Kamla Nehru Prani Sangrahalya, Indore, Madhya Pradesh	17 January 2023
106	Gharial (<i>Gavialis gangeticus</i>)	0:2:6:8	Kamla Nehru Prani Sangrahalya, Indore, Madhya Pradesh	17 January 2023
107	Honey badger (<i>Mellivora capensis</i>)	0:1:0:1	Kamla Nehru Prani Sangrahalya, Indore, Madhya Pradesh	17 January 2023
108	Bengal tiger (<i>Panthera tigris</i>)	2:2:0:4	Balasaheb Thackeray Gorewada International Zoological Park, Nagpur, Maharashtra	22 January 2023
109	Common leopard (<i>Panthera pardus</i>)	3:1:0:4	Balasaheb Thackeray Gorewada International Zoological Park, Nagpur, Maharashtra	22 January 2023
110	Marsh crocodile (<i>Crocodylus palustris</i>)	0:110:0:110	MCBT, Mamallapuram, Tamil Nadu	23 January 2023

111	Tiger hybrid (<i>Panthera tigris</i>)	6:13:0:19	Fauna Zoo De Mexico, Mexico	02 February 2023
112	Brown bear (<i>Ursus arctos</i>)	1:2:0:3	Fauna Zoo De Mexico, Mexico	02 February 2023
113	Jaguarundi (<i>Herpailurus yagouaroundi</i>)	2:0:4:6	Fauna Zoo De Mexico, Mexico	02 February 2023
114	Common leopard (<i>Panthera pardus</i>)	0:2:0:2	Fauna Zoo De Mexico, Mexico	02 February 2023
115	Lion hybrid (<i>Panthera leo</i>)	12:11:1:24	Fauna Zoo De Mexico, Mexico	02 February 2023
116	Margay (<i>Leopardus wiedii</i>)	0:3:2:5	Fauna Zoo De Mexico, Mexico	02 February 2023
117	Ocelot (<i>Leopardus pardalis</i>)	2:2:2:6	Fauna Zoo De Mexico, Mexico	02 February 2023
118	Lear's macaw (<i>Anodorhynchus leari</i>)	0:4:0:4	Association for Conservation of Threatened Parrots, Germany	07 February 2023
119	Spix's macaw (<i>Cyanopsitta spixii</i>)	12:14:0:26	Association for Conservation of Threatened Parrots, Germany	07 February 2023
120	St. Vincent amazon (<i>Amazona guildingii</i>)	4:4:0:8	Association for Conservation of Threatened Parrots, Germany	07 February 2023
121	Aardvark (<i>Orycteropus afer</i>)	1:1:0:2	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
122	Arabian rock hyrax (<i>Procapra capensis</i>)	0:0:20:20	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
123	Arabian striped hyena (<i>Hyaena hyaena</i>)	4:3:0:7	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
124	Arabian wolf (<i>Canis lupus arabs</i>)	2:0:0:2	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
125	Brown bear (<i>Ursus arctos</i>)	0:1:0:1	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
126	Chimpanzee (<i>Pan troglodytes</i>)	2:1:0:3	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
127	Hamadryas baboon (<i>Papio hamadryas</i>)	6:8:0:14	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
128	Honey badger (<i>Mellivora capensis</i>)	1:1:0:2	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
129	Jaguar (<i>Panthera onca</i>)	0:1:0:1	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
130	Leopard (<i>Panthera pardus</i>)	1:0:0:1	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
131	Lion (<i>Panthera leo</i>)	2:2:0:4	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
132	Orangutan (<i>Pongo borneo</i>)	0:1:0:1	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
133	Patas monkey (<i>Erythrocebus patas</i>)	2:2:2:6	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023

134	Somalian cheetah (<i>Acinonyx jubatus soemmeringii</i>)	4:3:0:7	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
135	Spotted hyena (<i>Crocuta crocuta</i>)	1:2:0:3	Kangaroo Animals Shelter, United Arab Emirates	10 February 2023
136	Marsh Crocodile (<i>Crocodylus palustris</i>)	0:113:0:113	MCBT, Mamallapuram, Tamil Nadu	15 February 2023
137	Aardvark (<i>Orycteropus afer</i>)	1:1:0:2	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
138	Arabian caracal (<i>Caracal caracal</i>)	3:3:0:6	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
139	Burmese python (<i>Python bivittatus</i>)	0:0:10:10	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
140	Grey kangaroo (<i>Macropus giganteus</i>)	2:2:0:4	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
141	Leopard (<i>Panthera pardus</i>)	0:1:0:1	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
142	Nile crocodile (<i>Crocodylus niloticus</i>)	0:0:10:10	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
143	Red kangaroo (<i>Macropus rufus</i>)	3:3:0:6	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
144	Red necked wallaby (<i>Macropus rufogriseus</i>)	4:9:0:13	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
145	Reticulated python (<i>Malayapython reticulatus</i>)	0:0:17:17	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
146	Wild cat (<i>Felis silvestris</i>)	3:3:0:6	Kangaroo Animals Shelter, United Arab Emirates	04 March 2023
147	Gharial (<i>Gavialis gangeticus</i>)	0:0:11:11	Chennai Snake Park Trust, Chennai, Tamil Nadu	14 March 2023
148	Asian forest tortoise (<i>Manouria emys</i>)	3:1:0:4	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
149	Asian leaf turtle (<i>Cyclemys dentata</i>)	3:1:0:4	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
150	Asiatic black bear (<i>Ursus thibetanus</i>)	1:1:0:2	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
151	Assamese macaque (<i>Macaca assamensis</i>)	1:1:0:2	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
152	Bengal slow loris (<i>Nycticebus bengalensis</i>)	3:0:0:3	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
153	Burmese python (<i>Python bivittatus</i>)	2:1:0:3	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
154	Indian jackal (<i>Canis aureus</i>)	4:2:0:6	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023
155	Rhesus macaque	0:1:0:1	Nagaland Zoological Park, Rangapahar, Dimapur, Nagaland	15 March 2023

	(<i>Macaca mulatta</i>)					
156	Black bearded saki (<i>Chiropotes satanas</i>)	0:20:0:20	Animal Farm Guyana Zoo, Guyana			18 March 2023
157	Lowland paca (<i>Cuniculus paca</i>)	2:0:0:2	Animal Farm Guyana Zoo, Guyana			18 March 2023
158	Red-faced spider monkey (<i>Ateles paniscus</i>)	1:3:0:4	Animal Farm Guyana Zoo, Guyana			18 March 2023
159	Red howler (<i>Alouatta seniculus</i>)	12:8:0:20	Animal Farm Guyana Zoo, Guyana			18 March 2023
160	White-faced saki (<i>Pithecia pithecia</i>)	2:4:0:6	Animal Farm Guyana Zoo, Guyana			18 March 2023

25. Rescue and Rehabilitation of wild animals carried out by the Zoo

Sl.No.	Date of Rescue	Species with number of animals rescued with their sex (M: F:U:T)	Received from	Date of Submission of Report to the CWLW / CZA	Action taken	
					Date and Place of rehabilitation in their habitat	Reasons for housing in the zoo, if not released in their habitat

26. Annual Inventory of animals

FORM-II
[See rule 11 (1)]

PART – A

Proforma for Annual Inventory Report

Inventory Report for the Year: 2022-2023 of Greens Zoological, Rescue and Rehabilitation Centre, Jamnagar, Gujarat

Endangered Species*

- Modified Closing Balance

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2022)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2023)				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
Aves																							
1.	Oriental pied hornbill	<i>Anthracoceros albirostris</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
2.	Indian peafowl	<i>Pavo cristatus</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2	
Total Aves	2		2	2	0	4	0	0	0	1	1	0	0	0	0	0	0	3	3	0	6		
Mammalia																							
1.	Blackbuck	<i>Antilope cervicapra</i>	8	12	7	27	3	2	5	0	0	0	0	0	0	1	1	0	10	13	12	35	
2.	Black spider monkey, Guiana spider monkey, Red faced black spider monkey	<i>Ateles paniscus</i>	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	1	3	0	4	
3.	Hog deer	<i>Axis porcinus</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	4	
4.	Mishmi takin	<i>Budorcas taxicolor taxicolor</i>	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2	
5.	Indian jackal	<i>Canis aureus indicus</i>	2	3	0	5	0	0	0	4	2	0	0	0	0	0	0	0	6	5	0	11	
6.	Caracal	<i>Caracal caracal</i>	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	3	3	0	6	

7.	Asiatic wild dog, Dhole, Indian wild dog, Red dog	<i>Cuon alpinus</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	4
8.	Jungle cat	<i>Felis chaus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
9.	Desert cat	<i>Felis silvestris</i>	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	3	3	0	6
10.	Chinkara	<i>Gazella bennettii</i>	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2
11.	Himalayan tahr	<i>Hemitragus jemlahicus</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
12.	Himalayan porcupine	<i>Hystrix brachyura</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
13.	Smooth coated otter	<i>Lutrogale perspicillata</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2
14.	Assam macaque	<i>Macaca assamensis</i>	1	1	0	2	0	0	0	1	1	0	0	0	0	0	0	0	2	2	0	4
15.	Rhesus macaque	<i>Macaca mulatta</i>	6	4	0	10	0	0	3	0	1	0	0	0	0	0	0	0	6	5	3	14
16.	Honey badger	<i>Mellivora capensis</i>	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	1	2	0	3
17.	Sloth bear	<i>Melursus ursinus</i>	3	4	0	7	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	7
18.	Bengal slow loris	<i>Nycticebus bengalensis</i>	2	1	0	3	0	0	0	3	0	0	0	0	0	0	0	0	5	1	0	6
19.	Leopard	<i>Panthera pardus</i>	76	71	0	147	0	0	15	37	30	0	0	0	0	0	0	0	113	101	15	229
20.	Bengal tiger	<i>Panthera tigris tigris</i>	0	0	0	0	0	0	10	24	38	0	0	0	0	1	0	0	23	38	10	71

21.	Leopard cat	<i>Prionailurus bengalensis</i>	1	1	3	5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	5
22.	Indian rhinoceros (Greater one horned rhino)	<i>Rhinoceros unicornis</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2
23.	Barasingha (Swamp deer)	<i>Rucervus duvaucelii</i>	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	3	4	0	7
24.	Bengal hanuman langur	<i>Semnopithecus entellus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
25.	Four-horned antelope	<i>Tetracerus quadricornis</i>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
26.	Eld's deer (Brow-antlered deer)	<i>Rucervus eldii</i>	4	8	0	12	0	0	2	0	0	0	0	0	0	0	0	0	4	8	2	14
27.	Asiatic black bear	<i>Ursus thibetanus</i>	12	7	0	19	0	0	0	1	1	0	0	0	0	0	0	0	13	8	0	21
28.	Common Fox	<i>Vulpes bengalensis</i>	2	2	0	4	0	0	0	1	1	0	0	0	0	0	0	0	3	3	0	6
Total Mammalia	28		119	117	14	250	3	2	35	89	97	0	0	0	0	3	1	0	209	215	48	472
Reptilia																						
1.	Marsh crocodile	<i>Crocodylus palustris</i>	300	0	1	301	0	0	0	4	552	0	0	0	0	0	0	0	304	552	1	857
2.	Saltwater crocodile	<i>Crocodylus porosus</i>	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	4	4	0	8

3.	Russell's viper	<i>Daboia russelii</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4	
4.	Checkered keelback	<i>Fowlea piscator</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4	
5.	Gharial	<i>Gavialis gangeticus</i>	0	0	0	0	0	0	0	2	10	17	0	0	0	0	0	2	10	17	29	
6.	Indian flap-shell turtle	<i>Lissemys punctata</i>	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	5	5	0	10	
7.	Reticulated python	<i>Malayopython reticulatus</i>	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	17	17	
8.	Peacock soft shelled turtle	<i>Nilssonia hurum</i>	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	
9.	Spectacled cobra	<i>Naja naja</i>	0	0	0	0	0	0	0	3	6	0	0	0	0	0	0	3	6	0	9	
10.	King cobra	<i>Ophiophagus hannah</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	2	
11.	Common rat snake	<i>Ptyas mucosa</i>	0	0	0	0	0	0	0	3	6	0	0	0	0	0	0	3	6	0	9	
12.	Burmese python	<i>Python bivittatus</i>	0	0	1	1	0	0	0	2	1	16	0	0	0	0	0	2	1	17	20	
13.	Indian rock python	<i>Python molurus</i>	0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	4	7	0	11	
Total Reptilia	13		302	1	2	305	0	0	0	32	596	50	0	0	0	0	0	334	597	52	983	
Total			423	120	16	559	3	2	35	122	694	50	0	0	0	3	1	0	546	815	100	1461

***Animals under Sch-I and Sch-II of Wild Life (Protection) Act, 1972**

PART - B
Greens Zoological, Rescue and Rehabilitation Centre, Jamnagar, Gujarat

Proforma for Annual Inventory Report
Inventory Report for the Year: 2022-2023

Other than Endangered Species*

S.No.	Animal Name	Scientific Name	Opening Stock (01-Apr-2022)				Births			Acquisitions			Disposals			Deaths			Closing Stock (31-Mar-2023)				
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T	
Amphibia																							
1.	Tiger salamander	<i>Ambystoma tigrinum</i>	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2	
Total Amphibia		1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2	
Aves																							
1.	Saint Vincent amazon, Saint Vincent parrot, St Vincent amazon, St. Vincent amazon, St. Vincent parrot	<i>Amazona guildingii</i>	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	4	4	0	8
2.	Indigo macaw, Lear's macaw	<i>Anodorhynchus leari</i>	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	4
3.	Little blue macaw, Spix's macaw	<i>Cyanopsitta spixii</i>	0	0	0	0	0	0	0	12	14	0	0	0	0	0	0	0	0	12	14	0	26

4.	Red junglefowl	<i>Gallus gallus</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4
5	Painted stork	<i>Mycteria leucocephalia</i>	2	4	0	6	0	0	0	18	24	0	0	0	0	0	0	2	4	0	6
Total Aves	4		2	4	0	6	0	0	0	18	24	0	0	0	0	0	0	20	28	0	48
Mammalia																					
1.	Northeast african cheetah	<i>Acinonyx jubatus soemmeringii</i>	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	4	3	0	7
2.	Red howler, Red howling monkey	<i>Alouatta seniculus</i>	0	0	0	0	0	0	0	12	8	0	0	0	0	0	0	12	8	0	20
3.	Chital/ Spotted deer	<i>Axis axis</i>	8	10	0	18	2	3	7	0	0	0	0	0	0	0	0	10	13	7	30
4.	Nilgai	<i>Boselaphus tragocamelus</i>	4	6	0	10	0	0	0	0	0	0	0	0	0	0	0	4	6	0	10
5.	Arabian wolf	<i>Canis arabs</i> <i>lupus</i>	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	2
6.	Black-striped tufted capuchin	<i>Cebus libidinosus</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1
7.	Black-cheeked White-nosed monkey, Red tailed guenon, Red-tailed monkey, Redtail monkey, Schmidt's guenon	<i>Cercopithecus ascanius</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1

8.	Red-bellied guenon, Red bellied monkey, White-throated guenon, White throated monkey	<i>Cercopithecus erythrogaster</i>	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
9.	De brazza's guenon, De Brazza's monkey	<i>Cercopithecus neglectus</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
10.	Lesser spot nosed guenon, Lesser spot nosed monkey, Lesser white nosed guenon, Lesser white-nosed Monkey, Spot-nosed monkey	<i>Cercopithecus petaurista</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2	0	4
11.	Bearded saki, Black bearded saki, Black saki	<i>Chiropotes satanas</i>	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	0	20
12.	Spotted hyaena	<i>Crocuta crocuta</i>	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	1	2	0	3
13.	Agouti, paca, Spotted paca	<i>Cuniculus paca</i>	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2
14.	Bennett's tree kangaroo	<i>Dendrolagus bennettianus</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
15.	European hedgehog	<i>Erinaceus europaeus</i>	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2
16.	Patas monkey	<i>Erythrocebus patas</i>	0	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	2	2	2	6

17.	Jaguarundi	<i>Herpailurus yagouaroundi</i>	0	0	0	0	0	0	2	4	2	4	0	0	0	0	0	0	4	2	6	12
18.	Common hippopotamus, Nile hippopotamus	<i>Hippopotamus amphibius</i>	2	0	0	2	0	0	1	1	2	0	0	0	0	0	0	0	3	2	1	6
19.	Striped hyena	<i>Hyaena hyaena</i>	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	4	3	0	7
20.	Bornean agile gibbon, Bornean white-bearded gibbon	<i>Hylobates albibarbis</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
21.	Dwarf gibbon, Kloss's gibbon, Mentawai gibbon	<i>Hylobates klossii</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
22.	Common gibbon, Lar gibbon, Whitehanded gibbon	<i>Hylobates lar</i>	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
23.	Capped gibbon, Crowned gibbon, Pileated gibbon	<i>Hylobates pileatus</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
24.	Ocelot	<i>Leopardus pardalis</i>	0	0	0	0	0	0	0	4	3	2	0	0	0	1	0	0	3	3	2	8
25.	Margay, Tree ocelot	<i>Leopardus wiedii</i>	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	3	2	0	5
26.	Black crested mangabey	<i>Lophocebus aterrimus</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2
27.	Bobcat	<i>Lynx rufus</i>	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	5	5	0	10

28.	Heck's macaque	<i>Macaca hecki</i>	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0	4
29.	Celebes macaque, Moor macaque	<i>Macaca maura</i>	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	5	3	0	8
30.	Booted macaque	<i>Macaca ochreata</i>	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	4	2	0	6
31.	Tonkean black macaque, Tonkean macaque	<i>Macaca tonkeana</i>	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	1	4	0	5
32.	Eastern grey kangaroo	<i>Macropus giganteus</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4
33.	Bennett's wallaby	<i>Macropus rufogriseus</i>	0	0	0	0	0	0	0	4	9	0	0	0	0	0	0	4	9	0	13
34.	Red kangaroo	<i>Macropus rufus</i>	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3	3	0	6
35.	Indian muntjac	<i>Muntiacus muntjak</i>	5	7	4	16	0	0	7	0	0	0	0	0	0	0	0	5	7	11	23
36.	Himalayan goral	<i>Naemorhedus goral</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4
37.	Okapi	<i>Okapia johnstoni</i>	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1	2	0	3
38.	Aardvark	<i>Orycteropus afer</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	4
39.	Chimpanzee, Common chimpanzee, Robust chimpanzee	<i>Pan troglodytes</i>	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	2	1	0	3
40.	African lion	<i>Panthera leo</i>	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	4	5	0	9
41.	Hybrid lion	<i>Panthera leo (hybrid)</i>	0	0	0	0	0	0	10	30	35	1	0	0	0	0	0	30	35	11	76

42.	Jaguar	<i>Panthera onca</i>	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	4	6	0	10	
43.	Hamadryas baboon	<i>Papio hamadryas</i>	0	0	0	0	0	0	0	6	8	0	0	0	0	0	0	6	8	0	14	
44.	Buffy saki, Pale-headed saki, White-faced saki	<i>Pithecia pithecia</i>	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	2	4	0	6	
45.	Bornean orangutan	<i>Pongo pygmaeus</i>	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	
46.	Rock hyrax	<i>Procavia capensis</i>	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	20	
47.	Puma/ Cougar/Mountain lion	<i>Puma concolor</i>	0	0	0	0	0	0	1	5	5	0	0	0	0	0	0	5	5	1	11	
48.	Sambar deer	<i>Rusa unicolor</i>	5	10	0	15	0	0	9	0	0	0	0	0	0	0	0	5	10	9	24	
49.	Mexican hairy dwarf porcupine, Mexican tree porcupine	<i>Sphiggurus mexicanus</i>	0	0	0	0	0	0	0	5	5	0	0	0	0	2	2	0	3	3	0	6
50.	Slender-tailed meerkat	<i>Suricata suricatta</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	
51.	Northern tamandua, Tamandua	<i>Tamandua mexicana</i>	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	0	1	1	0	2

52.	Germain's langur, Germain's silver langur, Indochinese leaf monkey, Indochinese lutung, Indochinese silvered langur	<i>Trachypithecus germaini</i>	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	0	0	3
53.	American black bear	<i>Ursus americanus</i>	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	0	4	6	0	10
54.	Brown bear, Grizzly bear	<i>Ursus arctos</i>	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	1	3	0	4
Total Mammalia	54		24	33	4	61	2	3	37	143	175	32	0	0	0	4	3	0	165	208	73	446
Reptilia																						
1.	Mangrove snake	<i>Boiga dendrophila</i>	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6	6
2.	Common snapping turtle, North American snapping turtle, Snapping turtle	<i>Chelydra serpentina</i>	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	8
3.	Montane trinket	<i>Coelognathus helena monticollaris</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2
4.	Morelet's crocodile	<i>Crocodylus moreletii</i>	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	4

5.	Nile crocodile	<i>Crocodylus niloticus</i>	0	0	0	0	0	0	0	0	6	10	0	0	0	0	0	0	6	10	16
6.	Siamese crocodile	<i>Crocodylus siamensis</i>	0	0	15	15	0	0	0	1	14	0	0	0	0	0	0	1	14	15	30
7.	Keeled box Turtle	<i>Cuora mouhotii</i>	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
8.	Asian leaf turtle, brown stream terrapin	<i>Cyclemys dentata</i>	2	2	0	4	0	0	0	3	1	0	0	0	0	0	0	5	3	0	8
9.	Red bellied short necked turtle	<i>Emydura subglobosa</i>	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26	26
10.	Whitaker's boa	<i>Eryx whitakeri</i>	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	4	6	0	10
11.	Leopard gecko	<i>Eublepharis macularius</i>	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	9
12.	Indian star tortoise	<i>Geochelone elegans</i>	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	1	4	0	5
13.	African spurred tortoise	<i>Geochelone sulcata</i>	0	0	208	208	0	0	0	0	0	17	0	0	0	0	0	0	0	225	225
14.	Black-breasted hill turtle, Black breasted Leaf turtle	<i>Geoemyda spengleri</i>	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	5
15.	Lesser antillean Iguana, West indian iguana	<i>Iguana delicatissima</i>	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12	12
16.	Green Iguana	<i>Iguana iguana</i>	0	0	1020	1020	0	0	0	0	0	213	0	0	0	0	0	0	0	1233	1233
17.	Travancore tortoise	<i>Indotestudo travancorica</i>	0	0	0	0	0	0	0	1	9	0	0	0	0	0	0	1	9	0	10

18.	D'albertis python, D'Albert's python, Northern white-lipped python	<i>Leiopython albertisii</i>	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	2
19.	Common wolf snake	<i>Lycodon aulicus</i>	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	2	
20.	Alligator snapping turtle	<i>Macrochelys temminckii</i>	0	0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	37	37
21.	Crevice tortoise, Pancake tortoise, Soft shelled tortoise, Softshell tortoise, Tornier's tortoise	<i>Malacochersus tornieri</i>	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9	9
22.	Asian giant tortoise, Asian tortoise, Black giant tortoise, Burmese brown tortoise, Burmese mountain tortoise, six-legged tortoise	<i>Manouria emys</i>	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	3	1	0	4	
23.	Ryukyu yellow pond turtle Japanese yellow pond turtle	<i>Mauremys mutica</i>	0	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	0	0	112	112

24.	Big-headed pond turtle, Chinese pond turtle, Chinese three-keeled Pond turtle, Japanese coin turtle, Reeves's turtle, Reeves' three-keeled pond turtle, Reeves' turtle	<i>Mauremys reevesii</i>	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	64	64
25.	Chinese stripe-necked turtle	<i>Mauremys sinensis</i>	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13	13
26.	Cuvier's dwarf caiman	<i>Paleosuchus palpebrosus</i>	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	5	5	0	10	
27.	Royal python/ Ball python	<i>Python regius</i>	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13	13
28.	Argentine black and white Tegu, Black-and-white tegu	<i>Salvator merianae</i>	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9	9
29.	Leopard tortoise, Mountain tortoise	<i>Stigmochelys pardalis</i>	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	15	15
30.	Emerald grass lizard	<i>Takydromus smaragdinus</i>	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	4
31.	Red eared slider	<i>Trachemys scripta elegans</i>	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	27	27
32.	Komodo dragon	<i>Varanus komodoensis</i>	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1

Total Reptilia	32		2	2	1243	1247	0	0	0	20	52	613	0	0	0	0	0	22	54	1856	1932	
Total			28	39	1247	1314	2	3	37	181	251	647	0	0	0	4	3	0	207	290	1931	2428
Grand Total of animals			451	159	1263	1873	5	5	72	303	945	697	0	0	0	7	4	0	753	1105	2031	3889

27. Mortality of animals

Sl. 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	Mexican hairy dwarf porcupine	<i>Sphiggurus mexicanus</i>	Female	15.07.2022	Cardiac insufficiency
2	Anteater sp.	<i>Tamandua</i> sp.	Female	18.07.2022	Pneumonia
3	Mexican hairy dwarf porcupine	<i>Sphiggurus mexicanus</i>	Female	09.08.2022	Gastroenteritis
4	Mexican hairy dwarf porcupine	<i>Sphiggurus mexicanus</i>	Male	21.08.2022	Hepatic insufficiency
5	Mexican hairy dwarf porcupine	<i>Sphiggurus mexicanus</i>	Male	11.09.2022	Septicaemia with Enteritis
6	Anteater sp.	<i>Tamandua</i> sp.	Male	14.09.2022	Multi organ failure
7	Ocelot	<i>Leopardus pardlis</i>	Male	23.09.2022	Chronic renal failure
8	Blackbuck	<i>Antilope cervicapra</i>	Female	19.11.2022	Respiratory failure
9	Chinkara	<i>Gazella bennettii</i>	Male	20.11.2022	Peritonitis
10	Blackbuck	<i>Antilope cervicapra</i>	Male	06.12.2022	Cardiac failure
11	Tiger	<i>Panthera tigris</i>	Male	27.01.2023	Renal insufficiency due to senility

28. Compliance with Conditions Stipulated by the Central Zoo Authority vide F. No. 20-1/2019-CZA (Part) dated 17.08.2020

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions
1	9 (2.0)	Keeping in view of the available large housing	With Immediate		As approved by the CWLW, Gujarat, currently

		space at the Satellite Rescue Centre of Greens Zoological Rescue & Rehabilitation Centre shall keep up to 52 Nos. of Leopards.	Effect		we are housing 229 (99:112:18) numbers of leopards.
2	10 (2.2)	The Zoo & Rescue Centre Operator should appoint an Education Officer before the zoo is opened to public.	Once the Zoo is opened, the Zoo Operator should the Education Officer		As Zoo is not yet opened, the appointment of Education Officer does not arise; however, the GZRRC will appoint Education Officer once we open the Zoo.
3	10 (3.1)	A master plan for the long-term development of the Zoo & Rescue Centre should be prepared and submitted to CZA for its approval.	One year		The Master Plan has been submitted to CZA on 19.12.2022 and 08.04.2023 for approval.
4	10 (3.51)	The rescued animals to be housed at Rescue Centre should have prior approval from the CWLW, Gujarat.	With Immediate Effect		Complied. Approvals have been obtained for housing of rescued Leopards from CWLW, Gujarat.
5	10 (5.1h)	Provision of footbath of adequate size with proper disinfectant at entry and exit points of animal house should be provided.	With Immediate Effect		Complied. Every enclosures entry and exit points have been provided with foot bath of adequate size with proper disinfectant.
6	10 (5.1i)	Indoor exhibits should have provision of ventilation in case the failure of air cooling system.	With Immediate Effect		Complied. At GZRRC we have made arrangements to keep the door open always connecting the night house to the paddock. We also have placed door with grill at all animal night houses, which allows good air circulation
7	10 (5.2)3	The Rescue Centre should have appropriate	With Immediate		Complied

		storage for meat, in case there is law and order problem in the city or pandemics like COVID-19.	Effect		The GZRRC has built a deep freezer room, where we are able to maintain -70 degree Celsius of temperature and with the capacity to store approximately 2000 kg of meat. The meat is stored presently as per the facility requirement.
8	10 (5.2)6	The Zoo/Rescue Centre Operator should take up the random food and water samples being tested periodically for microbiological, toxicological and any other contaminants at recognized laboratory	Six months		Complied At GZRRC, random food and water samples are being tested periodically for microbiological, toxicological and any other contaminants.
9	10 (5.3) 3	All animal arriving at the Rescue Centre should be screened for parasitic loads as per written schedule prepared by the veterinary officer and Prophylactic medicines administered as per clinical requirements and vaccination of animals against infectious diseases are done, as per the schedule prescribed by the Veterinary Officer.	One year		Complied All animals housed at the Rescue Centre are screened for parasitic load as of prescribed schedule by the Veterinary Officer.
10	10 (5.3) 4	The Zoo/Rescue Centre should have written schedule of vaccination and de-worming of different species of the zoo animals and displayed at the enclosure site.	With Immediate Effect		Complied All facilities have written schedule of vaccination and de-worming of the animals housed.

11	10 (5.3) 5	The Veterinary Officer at the Zoo/ Rescue Centre should maintain detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the keeper's diary, daily reports, animal history cards and treatment cards, as per standards specified by the Central Zoo Authority.	With Immediate Effect		Complied Detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment maintained in the keeper's diary, daily reports, animal history cards and treatment cards, as prescribed by the Central Zoo Authority.
12	10(5.3) 6	Are all staff involved with upkeep and healthcare of zoo animals screened against zoonotic diseases once every year and those found positive to any communicable disease are provided appropriate treatment till they get cured and become free of the infection and during the period of such treatment, the infected employees are kept away from the responsibility of upkeep and healthcare of the animals.	With Immediate Effect		Complied All staff involved with upkeep and healthcare of Rescue Centre. Animals screened against zoonotic diseases and their records are maintained.
13.	10 (5.3)8 10 (6.4)	The Zoo/Rescue Centre should have formal linkages through a MoU on healthcare, preventive, health management, surgical	One Year		The Rescue Centre has initiated the process for formal linkage with a group of Veterinarians on health management.

		interventions, clinical tests, disease diagnosis and consultation in treatment and management during the period of convalescence, with some Veterinary University/Institution.			
14	10 (6.2) 1	The Zoo/Rescue Centre should have appropriate animal restraint equipment, accessories and drugs.	With Immediate Effect		Complied The facility has following animal restraining equipment: <ul style="list-style-type: none"> • Pneu-dart X-Caliber Gauged CO2 syringe projector • Pneu-dart X-Caliber Gauged CO2 projector • Dan Inject Co2 syringe projector DK 2021 11597JM • Dan Inject JM model single barrel • Pneudart G2 X-Caliber • Dan inject 12 mm blow pipe
15	10 (6.3)	The Zoo/Rescue Centre should appoint support staff (Lab Assistant & Compounder) as specified by the CZA.	Three Months		The Rescue Centre has initiated the process of the appointment of the support staff (Lab Assistant & Compounder).
16	10 (8.1)	The Zoo/Rescue Centre should not euthanize any animal unless doing so is essential for relieving from suffering from incurable disease /condition as per the norms of CZA.	With Immediate Effect		Noted, no animals have been euthanized so far at the GZRRC.

29. List of free living wild animals within the zoo premises

S. No.	Common Name	Scientific Name	Status in the Wild Life (Protection) Act,1972
	Mammals		
1	Indian Grey Mongoose	<i>Herpestes edwardsii</i>	Schedule II
2	Indian Palm squirrel	<i>Funambulus palmarum</i>	Schedule IV
3	Indian Porcupine	<i>Hystrix indica</i>	Schedule III
4	Nilgai	<i>Boselaphus tragocamelus</i>	Schedule III
5	Black naped hare	<i>Lepus nigricollis</i>	Schedule IV
6	Wild Boar	<i>Sus scrofa cristatus</i>	Schedule III
7	Golden Jackal	<i>Canis aureus</i>	Schedule II
	Birds		
1	Asian koel	<i>Eudynamys scolopaceus</i>	Schedule IV
2	Asian Palm Swift	<i>Cypsiurus balasiensis</i>	Schedule IV
3	Black Drongo	<i>Dicrurus macrocercus</i>	Schedule IV
4	Black Ibis	<i>Pseudibis papillosa</i>	Schedule IV
5	Black Kite	<i>Milvus migrans</i>	Schedule IV
6	Black winged stilt	<i>Himantopus himantopus</i>	Schedule IV
7	Blue-tailed Bee-eater	<i>Merops philippinus</i>	Schedule IV
8	Cattle Egret	<i>Bubulcus ibis</i>	Schedule IV
9	Comb duck	<i>Sarkidiornis melanotos</i>	Schedule IV
10	Common Babbler	<i>Turdoides caudatus</i>	Schedule IV
11	Common Crow	<i>Corvus splendens</i>	Schedule V
12	Common Kingfisher	<i>Alcedo atthis</i>	Schedule IV
13	Common Myna	<i>Acridotheres tristis</i>	Schedule IV
14	Common Sand Piper	<i>Actitis hypoleucas</i>	Schedule IV

15	Common Swift	<i>Apus apus</i>	Schedule IV
16	Green bee eater	<i>Merops orientalis</i>	Schedule IV
17	Grey heron	<i>Ardea cinerea</i>	Schedule IV
18	House Sparrow	<i>Passer domesticus</i>	Schedule IV
19	Indian bush lark	<i>Mirafra erythroptera</i>	Schedule IV
20	Indian cormorant	<i>Phalacrocorax fuscicollis</i>	Schedule IV
21	Indian Peafowl	<i>Pavo cristatus</i>	Schedule-I
22	Indian Pond Heron	<i>Ardeola grayii</i>	Schedule IV
23	Indian Robin	<i>Saxicoloides fulicata</i>	Schedule IV
24	Indian Roller	<i>Coracias benghalensis</i>	Schedule IV
25	Painted stork	<i>Mycteria leucocephala</i>	Schedule IV
26	Pigeon	<i>Columba livia</i>	Schedule IV
27	Purple-rumped Sunbird	<i>Nectarinia zeylonica</i>	Schedule IV
28	Red Wattled Lawping	<i>Vanellus indicus</i>	Schedule IV
29	Red-vented Bulbul	<i>Pycnonotus cafer</i>	Schedule IV
30	Rock Bush Quail	<i>Perdica argoondah</i>	Schedule IV
31	Rosy pelican	<i>Pelecanus onocrotalus</i>	Schedule IV
32	Rose Ringed Parakeet	<i>Psittacula krameri</i>	Schedule IV
33	Rufus treepie	<i>Dendrocitta vagabunda</i>	Schedule IV
34	Shikra	<i>Accipiter badius</i>	Schedule I
35	Spot billed duck	<i>Anas poecilorhyncha</i>	Schedule IV
36	Spotted Dove	<i>Streptopelia chinensis</i>	Schedule IV
37	Western reef egret	<i>Egretta gularis</i>	Schedule IV
38	White bellied swiftlet	<i>Collocalia esculenta</i>	Schedule IV
39	White Wagtail	<i>Motacilla alba</i>	Schedule IV
40	Yellow-wattled Lapwing	<i>Vanellus malarbaricus</i>	Schedule IV
	Reptiles		
1	Common Krait	<i>Bungarus caeruleus</i>	Schedule IV
2	Common skink	<i>Mabuya carinata</i>	-

3	Garden lizard	<i>Calotes versicolor</i>	-
4	Rat snake	<i>Ptyas mucosus</i>	Schedule II
5	Russell's Viper	<i>Vipera russelli</i>	Schedule II
6	Spectacled cobra	<i>Naja naja</i>	Schedule II
7	Saw scaled viper	<i>Echis carinatus</i>	Schedule IV
	Amphibians		
1	Common Indian toad	<i>Bufo melanostictus</i>	Schedule IV
2	Common Frog	<i>Hoplobatrachus tigrinus</i>	Schedule IV
	Butterflies		
1	Blue tiger	<i>Tirumala limniacae</i>	-
2	Common grass dart	<i>Taractrocera maevius</i>	-
3	Common Mormon	<i>Papilio polytes</i>	-
4	Common sailor	<i>Neptis hylas</i>	-
5	Lemon pansy	<i>Junonia lemonias</i>	-
6	Yellow pansy	<i>Junonia hierta</i>	-
7	Damselflies		
8	Common Club tail	<i>Ictinogomphus rapax</i>	-
9	Ground Skimmer	<i>Diplacodes trivialis</i>	-
10	Wandering Glider	<i>Pantala flavescens</i>	-
	Dragonflies		
1	Golden dartlet	<i>Ischnura aurora</i>	-
2	Yellow bush dart	<i>Copera marginipes</i>	-