

# VEERMATA JIJABAI BHOSALE BOTANICAL UDYAN & ZOO

Annual Report for the year  
2023-2024



the  
mumbai  
botanical udyan  
and zoo

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## **1. Report of the Officer-in-charge**

### **MUNCIPAL CORPORATION OF GREATER MUMBAI**

### **VEERMATA JIJABAI BHOSALE BOTANICAL UDYAN & ZOO**

#### **From Director's Desk**

Veer mata Jijabai Bhosale Botanical Udyan & Zoo, Byculla, Mumbai has been under renovation and witnessed monumental changes within a couple of years. Various animal facilities, upkeep of gardens, newly developed animal exhibits, upgraded public amenities, improvised pathways and roads, Installation of CCTVs, Vermicomposting plant have now been operational. The Zoo has witnessed progressive increase in visitors' footfall after the arrival of various new animals.

The Humboldt penguin birds are now settled in their habitat wherein our team is keeping their health care regime up to date and they have been given their own nesting places for breeding. The birds are been looked after with utmost care and as per the WAZA norms.

The newly arrived animals like Swamp deer, Jackal are now displayed in their newly developed naturalistic exhibits. A total 5 zoo animal exhibits including spotted deer, barking deer and sambar deer are open for public viewing. The newly developed animal exhibits have been equipped with Glass viewing panels, natural and aesthetically built GRC structures like dens, rock work, water bodies with water circulation feature, waterfalls with sensors, animal holdings and shaded areas along with landscapes augmented with indigenous species of plants merged with the surroundings and suitable for the specific animal.

Other developments include a well-equipped zoo hospital, upgraded veterinary health care facilities, various garden plots, selfie points, signage and other allied infrastructure. The newly developed 3D Auditorium is now functional and various educational programmes are being arranged thereat.

The irrigation system has been developed connecting three natural wells inside the premises and the water supply all over the Zoo is directly linked to the wells. Other ongoing works include construction of animal exhibits for new animals and a landscape garden based on Biome theme consisting of three underground water tanks for irrigation, drinking water and STP.

The Zoo is nearing its target of complete modernization and expect to become the most aspiring destination for Mumbaikars attracting worldwide visitors. With the most advanced animal exhibits enhanced with naturalistic enrichment, acrylic glass panels, rock work and other facilities, the Zoo is embellishing its look while maintaining its heritage precincts of more than 150 years.

May the future endeavors be bright and shining...!!!

Dr. Sanjaykumar A. Tripathi

**Director (Zoo)**

## **2. History of the Zoo**

Veer mata Jijabai Bhosale Botanical Udyan & Zoo is one of the oldest zoos in the country & was established in 1862. This area was under the control of Agri-Horticultural Society of Western India. The management of this Udyan & Zoo was handed over to MCGM by the then state govt in 1873. The total area of this Udyan & Zoo is approx. of 53 acres and is declared as “Heritage Grade II (B)” site. This Udyan & Zoo has been given recognition as “Medium Zoo” by Central Zoo Authority, New Delhi.

### **3. Vision**

Veer mata Jijabai Bhosale Udyan and Zoo is one of the oldest zoos in the country and was established in the year 1862. The total area of the Udyan and the Zoo is approximately 53 acres and is declared as Heritage Grade II (B) site. This Udyan and Zoo has been given recognition as “Medium Zoo” by the Central Zoo Authority, New Delhi

Considering the small area of this zoo and a great footfall (around 10 to 15 thousand visitors on an average per day) it is felt that this zoo should work more in educating the people for creating love, interest, empathy and awareness among general visitors, school students/teachers group, college students and representative of various organizations. Various event days related to wildlife, Nature and Environment shall be organized for the purpose in the interpretation center newly constructed at this zoo having the facilities such as a 200-seater auditorium and exhibition areas which are under development. These facilities can be used for conducting various training programme, seminars, workshops, exhibition, wildlife weeks, essay/drawing/elocution competitions and similar other activities including various audiovisual shows, wildlife movies and power point presentation etc.

Most of the New Animal Enclosures will be open and spacious (as per the area norms prescribed for Indian Animals by the Central Zoo Authority, New Delhi). The Natural environment, as per the natural habitat of the respective animals will be created. This will satisfy the basic needs of the animals and provide them comfort and security. These exhibits will also be helpful in educating the visitors about the natural habitats of the animals. There will be visitors viewing areas with the acrylic glass panels, which would not only serve the purpose of a barrier in between the animals and visitors but also shall facilitate the visitor's viewing.

#### **4. Mission**

##### **“To engender a respect for wildlife and inspire conservation action”**

The zoo aims to create an ambiance that will create awareness about wildlife and inculcate a healthy attitude towards animals. By providing naturalistic, immersion exhibits that display animals in their “wild” surroundings and by imparting information through engaging signage, the zoo aims to become a learning center, albeit in a relaxed and leisurely manner.

The future objective of the zoo is to meet world standards for animal care and husbandry, for environmental education and to be a truly memorable visitor experience.

As part of its mission, the zoo aims to help the visitor be a good zoo steward. Caring for the collection is a primary responsibility of the zoo and the visitor has an important role to play in ensuring the health and well-being of the collection. Visitors shall be briefed on what behaviors are acceptable in the zoo, how their behavior has an impact on animal health and the quality of their own experience and the reasons why respectful conduct is important. Visitor action, both at the zoo and at their home, should serve as an example to others to respect wildlife and to protect the environment on which all life depends.

It is important to educate the visitors about extinction and remind them of our losses, like the dodo, the Indian Cheetah, the Pink headed duck which were all lost due to man’s fault. Remembering our losses is important so that we may learn not to commit the same grave mistakes again and help species that are already on the brink of extinction and thus inspire conservation action amongst them.

## **5. Objective**

The objective of the V.J.B. Udyan and Zoo is to develop in to one of the best Zoos in the country as well as abroad, by providing best facilities to the Zoo inmates as well as the visitors. Such as a well-equipped Zoo hospital, cafeteria, food kiosks, drinking water fountains, beautiful internal gardens, rain water shelters, high class Toilets etc. It aims to perform as one of the best nature Interpretation centres for creating interest and awareness about the role of a Zoo in particular and also about Nature, Wildlife and Environment in general, in the minds of people, especially school/college students and teachers. The Zoo interpretation centre having facilities such as an auditorium for conducting various educational activities and the exhibition area are under development, which will be functional in near future.

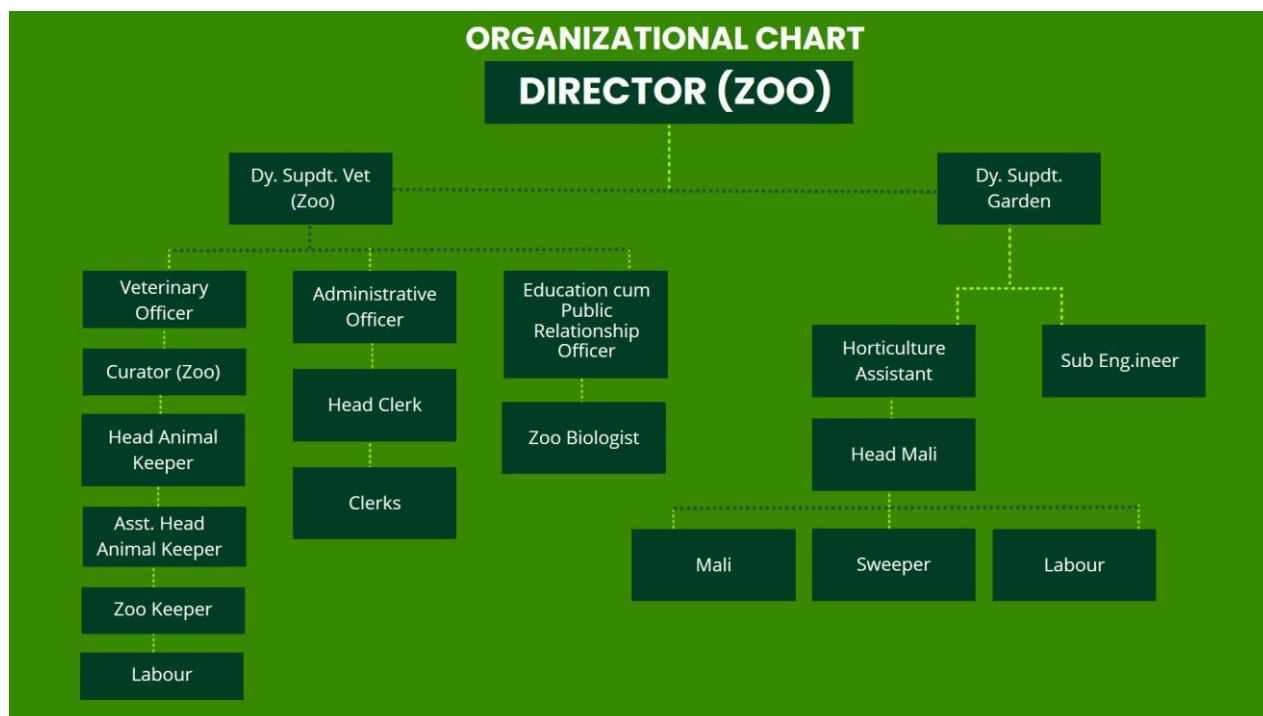
## **6. About us**

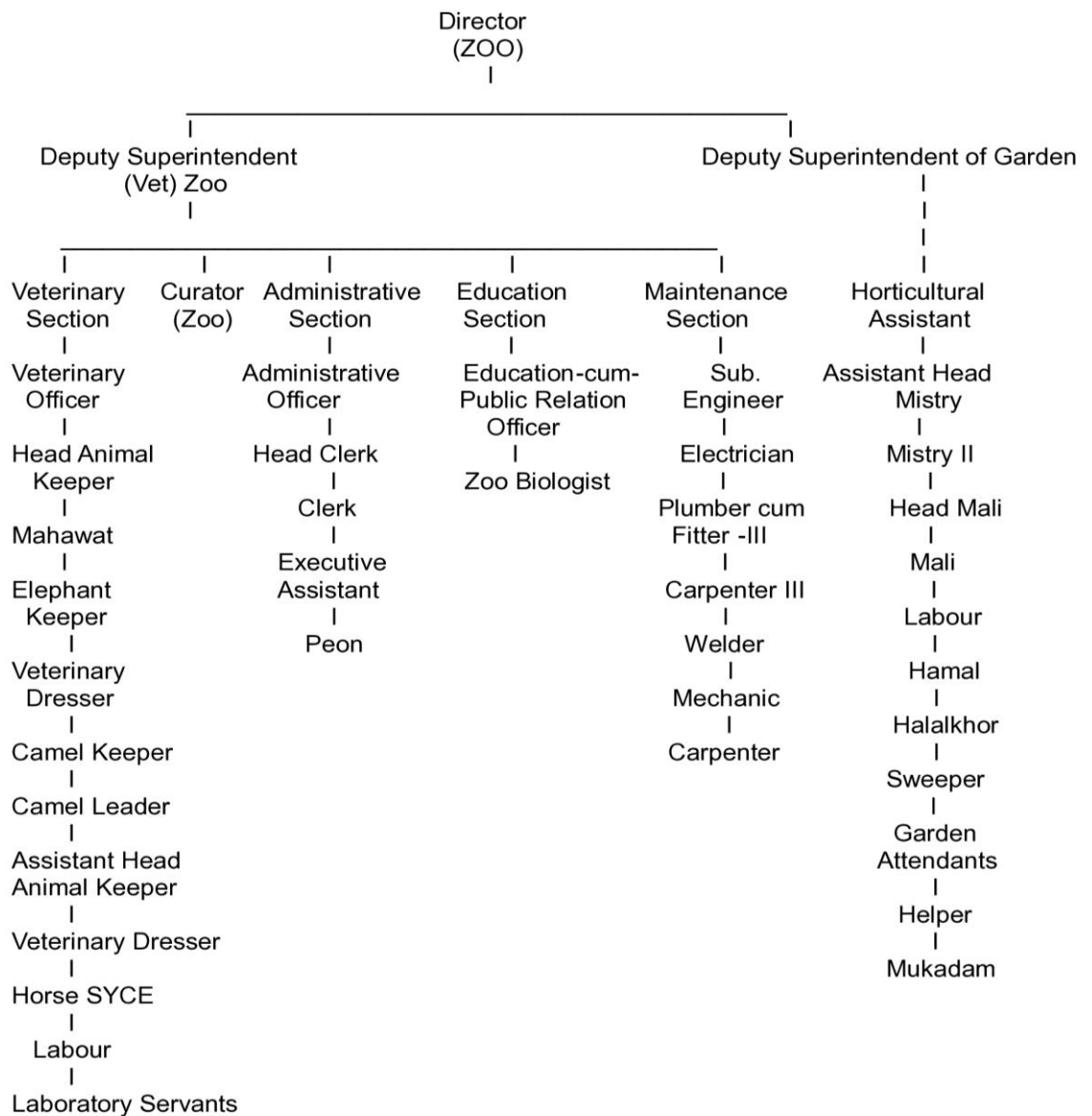
<b>S.No.</b>	<b>Particulars</b>	<b>Information</b>
<b>Basic Information about the Zoo</b>		
1	Name of the Zoo	<b><u>Veermata Jijabai Bhosale Botanical Udyan &amp; Zoo</u></b>
2	Year of Establishment	<b>1862</b>
3	Address of the Zoo	<b>Dr. Babasaheb Ambedkar Rd., Byculla (East), Mumbai- 400 027</b>
4	State	<b>Maharashtra</b>
5	Telephone Number	<b>022-223772414</b>
6	Fax Number	–
7	E-mail address	<b>vjbudyanzoo@yahoo.co.in</b> <b>dirzoo01@mcgm.gov.in</b>
8	Website	–
9	Distance from nearest	Airport: <b>16 km (Approx.)</b>
		Railway Station: <b>From Byculla Station: 550 m (Approx.)</b> <b>Reay Road Station: 700 m(Approx.)</b>
1033	Recognition Valid up to (Date)	<b>25/12/2025</b>
11	Category of zoo	<b>Medium</b>

S.No.	Particulars	Information
12	Area (in Hectares)	<b>21.4483 Hectares (Approx.)</b>
13	Number of Visitors (Financial Year)	Adult:21,00,017
		Children: 7,95,284
		Total Indian: 28,95,301
		Adult: 2120 Children: 258 Total Foreigners: 2378 Date 01.04.2023 to 31.03.2024
		Total Visitors:
14	Visitors' Facilities Available in Zoo	<b>1. Ticket house with baggage counter souvenir shop and public toilet 2. Drinking water fountains 3. Rain water shelters 4. Interpretation Center 5. Child care center 5. Public Toilets 6. Cafe Wild- Eatery</b>
15	Weekly Closure Day of the Zoo	<b>Wednesday</b>
<b>Management Personnel of the zoo</b>		
16	Name with designation of the Officer in-charge	<b>Dr. Sanjaykumar A. Tripathi Director (Zoo)</b>
	Name of the Veterinary Officer	<b>Dr. Komal V. Raul</b>
	Name of the Curator	<b>Dr. Devanand D. Shirsat</b>

<b>S.No.</b>	<b>Particulars</b>	<b>Information</b>
	Name of the Biologist	<b>Dr. Abhishek N. Satam</b>
	Name of the Education Officer	-
	Name of the Compounder/ Lab Assistant	<b>Shri. Arun Bhagane (In Charge)</b>
<b>Owner / Operator of the Zoo</b>		
17	*Name of the Operator	<b>Municipal Commissioner. Brihanmumbai Municipal Corporation Mumbai</b>
18	Address of the Operator	<b>2<sup>nd</sup> Floor, Municipal Head Office, Mumbai- 400 001.</b>
19	Contact details/Phone number of Operator	<b>022- 22620251 022-22620525</b>
20	E-mail address of Operator	<b>mc@mcgm.gov.in</b>

## 7. Organizational chart





## **8. Human Resources**

<b>Sr. No.</b>	<b>Designation</b>	<b>Number of Sanctioned Posts</b>	<b>Names of the incumbent</b>
1	Director (Zoo)	1	1
2	Deputy Superintendent (Vet) Zoo	1	1
3	Deputy Superintendent of Garden	1	1
4	Veterinary Officer	1	0
5	Curator (Zoo)	1	1
6	Education-cum-Public Relation Officer	1	0
7	Biologist	1	1
8	Administrative Officer	1	1
9	Head Clerk	1	1
10	Horticultural Assistant	4	2
11	Clerk	3	3
12	Executive Assistant	2	2
13	Clerk (Store)	1	1
14	Peon	2	2
15	Tracer	1	0
16	Draftsman	1	0
17	Mechanic	1	0
18	Mistri I	1	0
19	Welder	1	0
20	Helper	1	0
21	Carpenter II	1	0
22	Painter	2	0
23	Head Mali	1	0
24	Plumber cum Fitter -III	1	0
25	Garden Attendants	3	2
26	Carpenter- III	1	0
27	Mukadam	5	0

28	Mistry II	4	1
29	Mali	81	31
30	Sweeper	14	12
31	HalalKhor	1	0
32	Store Attendant	1	0
33	Garden Labourer	15	3
34	Hamal	2	0
35	Cart Driver	2	0
36	Head Animal Keeper	1	0
37	Mahawat	3	0
38	Elephant Keeper	1	1
39	Camel Keeper	2	0
40	Camel Leader	1	0
41	Assistant Head Animal Keeper	2	0
42	Veterinary Dresser	1	1
43	Animal Keeper	25	13
44	Assistant Veterinary dresser	1	1
45	Horse Syce	2	0
46	Zoo Labourer	14	13
47	Laboratory Servants	2	1
	TOTAL	216	96

### **9. Capacity building of zoo personnel**

<b>Sr. No.</b>	<b>Name &amp; Designation of the zoo personnel</b>	<b>Subject matter of training</b>	<b>Period of training</b>	<b>Name of the institution where the training attended</b>
1.	Dr. Abhishek Satam (Biologist & EPRO ic)	Capacity Building workshop for Indian Zoo Biologist	5 <sup>th</sup> - 7 <sup>th</sup> August 2023	Sanjay Ghandhi biological Park, Patna, Bihar
2.	Mr. Sanju Kharava (Zoo animal keeper) Mr. Nitin Kadam (Head animal keeper)	Regional Capacity Enhancement workshop for zoo keeper of the Western Region	13 <sup>th</sup> -15 <sup>th</sup> September 2023	Sakkarbaug Zoological Park, Junagadh, Gujarat
3.	Dr. Abhishek Satam (Biologist & EPRO ic)	Regional Capacity Enhancement workshop for zoo keeper of the Western Region (Expert Talk)	13 <sup>th</sup> -15 <sup>th</sup> September 2023	Sakkarbaug Zoological Park, Junagadh, Gujarat
4.	Dr. Abhishek Satam (Biologist & EPRO ic)	Capacity Building workshop for Zoo Educators	6 <sup>th</sup> – 8 <sup>th</sup> November 2023	Nwab Wazid Ali Shah Zoological Park, Lucknow
5.	Dr. Abhishek Satam (Biologist & EPRO ic)	Capacity Building workshop for Indian Zoo Biologist	5 <sup>th</sup> - 7 <sup>th</sup> August 2023	Sanjay Ghandhi biological Park, Patna, Bihar
	Mr. Sanju Kharava (Zoo animal keeper) Mr. Nitin Kadam (Head animal keeper)	Regional Capacity Enhancement workshop for zoo keeper of the Western Region	13 <sup>th</sup> -15 <sup>th</sup> September 2023	Sakkarbaug Zoological Park, Junagadh, Gujarat

### **10. Zoo Advisory Committee – NIL**

## **11. Health Advisory Committee-**

**a. Date of Constitution-** 05.07.2011

### **b. Members**

1.) Dr. D. U. Lokhande

Professor, Dept. of Surgery & Radiology

2.) Dr. D.G. Dighe

Asst. Professor, Dept. of Medicine

3.) Dr. G.M. Gadegaonkar

Asst. Professor, Dept. of Animal Nutrition

4.) Dr. P.V. Meshram

Asst. Professor, Dept. of Pathology

5.) Dr. P. E. Awari

Asst. Professor, Dept. of Poultry Science,

**c. Dates on which meetings held during the year-** NIL

## **12. Statement of income and expenditure of the Zoo**

<b>Financial Year 2023-24</b>			
<b>Annual Revenue (Rs.) Entry fees</b>		11,46,29,158	
<b>Annual Expenditure (Rs. In Crore)</b>			
Allotted Revenue Budget	Consumed Revenue Expdt.	Allotted Capital Budget	Consumed Capital Expdt
<b>28.41 Cr.</b>	<b>42.79 Cr.</b>	104	Nil

### 13. Daily Feed Schedule of animals

Sr. No.	Species	Feed item	Quantity		Day of fasting
			Winter	Summer	
1.	Elephant	a) Hay b) Rice Straw c) Lucern grass d) Banana e) Carrots f) Sugar Cane g) Pony pellets + wheat bran + oil cake h) Jaggery I) Garlic+pepper+sesame seeds+ turmeric+ methi +linseed+ karli	20 kg. 10 kg. 55 kg. 1 Dozen 15 kg. 25 kg. 5 kg. + 5 kg. + 0.8 kg. 500gm 1.5kg	5 % less feed	None
2.	Hippopotamus	a) Soaked Gram + Maize b) Wheat Bran c) Lucern grass	6 Kg. 10 Kg. 30 Kg.	5 % less feed	None
3.	Sambar, Nilgai	a) Soaked gram + maize b) Wheat bran + Oil cake c) Carrots d) Lucern Grass e) Hay f) Cattle Feed g) Bananas h) Rock salt	½ Kg. ½ Kg.+100gm ¼ Kg. 2 Kg. 1 Kg. ½ Kg 4-5 nos.	5 % less feed	None

4.	Black Buck, Spotted Deer, Barking Deer	a) Soaked Gram + Maize b) Wheat Bran c) Carrots d) Lucern Grass e) Hay f) Cattle Feed	½ Kg. ½ Kg. ¼ Kg. 1 Kg. 1 Kg. ¼ Kg	5 % less feed	None
5.	Swamp Deer	1) Soaked gram + maize b) Wheat bran + Oil cake c) Carrots d) Lucern Grass e) Hay f) Cattle Feed g) Bananas h) Rock salt	½ Kg. ½ Kg.+100gm ¼ Kg. 2 Kg. 1 Kg. ½ Kg 4-5 nos.	5 % less feed	
6.	Monkey	a) Groundnuts b) Socked gram + Maize c) Carrots d) Banana e) Ladies finger, Beet, Tomato, Cucumber f) Other vegetables and Fruits (apple, guava, seasonal fruit) g) Water Melon	100 gms. 100 gms. 50 gms. 4 No. } 80 gms. } 1 Kg. 100 gms 5 % less feed	5 % less feed	None

7.	Striped Hyena	• Chicken/Beef with bone	4 Kgs.	4 Kgs.	Thursday
		• Liver	200 gms.	200 gms.	
		• Rock Salt	Always avail	Always avail	
8.	Leopard	• Chicken/Beef with bone	5 Kgs.	5 Kgs.	Thursday
		• Liver	200 gms.	200 gms.	
		• Rock Salt	Always avail	Always avail	
9.	Royal Bengal Tiger	• Chicken/Beef with bone	12 Kgs.	12 Kgs.	Thursday
		• Liver	400 gms.	400 gms.	
		• Rock Salt	Always avail	Always avail	
10.	Golden Jackal	• Chicken/Beef with bone	1.5 Kgs.	1.5 Kgs.	Thursday
		• Liver	50 gms.	50 gms.	
		• Rock Salt	Always avail	Always avail	
11.	Sloth Bear	• Porridge (rice, milk, jaggery, eggs)	1 litre ( ½ kg, 1 litre, 100 gms, 4nos. )	1 litre ( ½ kg, 1 litre, 100 gms, 4nos. )	None

		<ul style="list-style-type: none"> <li>• papaya</li> <li>• water melon</li> <li>• apple</li> <li>• banana</li> <li>• chikoo</li> <li>• Salad leaves</li> <li>• cabbage</li> <li>• beetroot</li> <li>• carrot</li> <li>• groundnut with cover</li> <li>• honey</li> </ul>	500gm 1 Kg 1 nos. ½ dozen 03 nos. 250 gms 100 gms 50 gms 250 gms 100 gms 20ml		
9.	Snakes	a) Mice	1 No.	1 No.	Depending on the size
10.	Pied Horn Bill	a) Plantain (Banana) b) Papaya c) Minced meat d) Seasonal fruits	4 Nos. 100 gms. 30 gms. 50gms	4 Nos. 100 gms. 30 gms. 50gms	None
11.	Adjutant stork/ Painted Stork	a) Fish	500 gms.	500 gms.	None
12.	Pelican	a) Fish	2 Kgs.	2 Kgs.	None
13.	Macaw (per pair)	a) Apple, Chickoo b) Groundnuts with cover c) Sugar cane d) Guava	300 gms. 200 gms. 200 gms. 100 gms.	300 gms. 200 gms. 200 gms. 100 gms.	None

		e) Sunflower seed	100 gms.	100 gms.	
		f) Paddy	50 gms.	50 gms.	
		g) Cuttle fish Bone	Always avail.	Always avail.	
		h) Corn Cobs	In season	In season	
		i) Green peas	In season	In season	
15.	Budgerigar (per pair)	a) Kang (Khursani)	300 gms.	300 gms.	None
		b) Fruits	100 gms.	100 gms.	
		c) Coriander Leafy Veg.	200 gms.	200 gms.	
		d) Cuttle Fish Bone	Always available	Always available	
16.	Crane	a) Mixed Grain.	250 gms.	250 gms.	None
		b) Fish	200 gms.	200 gms.	
		c) Mixed Leafy vegetables	50 gms.	50 gms.	
17.	Cockatiel (Per pair)	a) Kang	50 gms.	50 gms.	None
		b) Sunflower seed	50 gms.	50 gms.	
		c) Mixed vegetables	100 gms.	100 gms.	
		d) Mash (chonga)	50 gms.	50 gms.	
		e) Cuttle Fish Bone	Always avail.	Always avail.	
18.	Red Crown Crane	a) Fish	300 gms.	300 gms.	None
		b) Mixed Grain	250 gms.	250 gms.	
		c) Mixed vegetables	100 gms.	100 gms.	
		d) Mixed Fruits	100 gms.	100 gms.	
20.	Wild Boar	a) Wheat bran + Oil cake	½ Kg.+100gm 2kg	½ Kg.+100gm 2kg	None
		b) Carrots	2 Kg.	2 Kg.	
		c) Lucern Grass	1 Kg.	1 Kg.	
		d) Hay	4-5 nos.	4-5 nos.	
		e) Bananas			

		f) Rock salt	1 kg	1 kg	
		g) sweet potato	750 gms	750 gms	
		h) sugar cane	1kg	1kg	
		i) palak	300gms	300gms	
		j). cucumber			
21.	Humboldt Penguins	Sardine/Eel/ Bombay Duck/ Mackerel/ Indian Salmon/ Anchovies	700-800 gms	700-800 gms	Sunday

#### 14. Vaccination Schedule of Animals

Sr. no.	Species	Disease vaccinated for	Name of the vaccine and dosage/quantity used	Periodicity	Remarks
1.	Striped Hyena, Golden Jackal, Sloth Bear	i) a) Canine Distemper b) Canine Leptospirocanicola, pomona grippotyphosa, and icterohaemorrhagica c) Canine Adenovirus type 2 d) Canine Parainfluenza e) Canine Parvovirus	7 in 1 vaccine	Annually	Subcutaneous
		ii) Canine Rabies	Anti-Rabies vaccine	Annually	
		iii) Canine Corona virus	Corona vaccine	Annually	
2.	Leopard, Royal Bengal Tiger	i) a) Feline Calcivirus b) Feline Rhinotracheitis virus c) Feline Panleucopenia	Feligen vaccine	Annually	Subcutaneous
		ii) Canine Rabies	Anti-Rabies vaccine	Annually	
3.	All birds	a) Ranikhet disease	Lasota vaccine/ Ranikhet vaccine	Biannually	Drinking water
4.	Elephant	Rabies  Tetanus	Anti-Rabies Vaccine  Tetanus Toxoid 3 ml	Annually	Intramuscular

### 15. Deworming Schedule of Animals

<b>Sr. no.</b>	<b>Class of animals</b>	<b>Species</b>	<b>Drug used</b>	<b>Month</b>
1.	Carnivores	Hyena, Golden Jackal, Leopard, Royal Bengal Tiger	Febantel+ Pyrantel+Praziquantel	March, June, November
2.	Omnivores	Monkeys Sloth Bear	Fenbendazole/ Albendazole Febantel+ Pyrantel+Praziquantel/ Fenbendazole	March, June, November
3.	Herbivores	Elephants Hippopotamus Deer Antelope Nilgai Wild Boar	Ivermectin Fenbendazole Fenbendazole Fenbendazole Fenbendazole Fenbendazole	March, May, June, November
4.	Birds	Peafowl, Parakeet, Macaw, Cockatoo, Cockateil, Budgerigar, Parrot, Emu, Crane, Stork, Heron, Pelican <i>etc.</i>	Fenbendazole	March, June, November
5.	Reptiles	Crocodile, Turtle, Tortoise, Snake	Fenbendazole	March, June, November

## 16. Disinfection Schedule

Disinfectants in the form of sprays, solutions, powders eg. Potassium permanganate, Dettol, Aseptic, Kohrsoline, Bleaching powder are used to maintain hygiene in and around animal enclosures.

<b>Sr. No.</b>	<b>Class of animals</b>	<b>Species</b>	<b>Type of enclosure</b>	<b>Disinfectant used and method</b>	<b>Frequency of disinfection</b>
1.	Carnivores	Hyena Tiger Leopard Jackal	Feed House and water body	KMno4, Kohrsoline, Virkon, Germigo	Daily with water and once a week with disinfectant
2.	Omnivores	Monkeys Sloth Bear	Feed House and water body	KMno4, Kohrsoline, Virkon, Germigo	Daily with water and once a week with disinfectant
3.	Herbivores	Elephants Hippopotamus Deer Antelope Nilgai Wild Boar	Feed House and water body	KMno4, Kohrsoline, Virkon, Germigo	Water body cleaned once a week.
4.	Birds	Pheasant Parakeet Macaw Cockatoo Cockateil Budgerigar Parrot Emu Crane Stork Heron, Pelican <i>etc.</i>	Enclosure and water body	KMno4, Kohrsoline, Virkon, Germigo	Water body cleaned once a week.

### **17. Health screening of employees for zoonotic diseases**

All zoo staff were screened for TB.

<b>Sr. no.</b>	<b>Name</b>	<b>Designation</b>	<b>Date of Health check-up</b>	<b>Findings of Health Check up</b>
1	Nitin Kadam	Head Animal Keeper	29-03-2023	Negative
2	Israr Khan	Asst. Head Animal keeper	29-03-2023	Negative
3	Omkar Satardekar	Labour	29-03-2023	Negative
4	Ravindra Nivate	Animal keeper	29-03-2023	Negative
5	Arun Bhangane	Animal keeper	29-03-2023	Negative
6	Rakesh Jadhav	Animal keeper	29-03-2023	Negative
7	Jeetsingh Bali	Animal keeper	29-03-2023	Negative
8	Jamal Khan	Animal keeper	29-03-2023	Negative
9	Vilas Amberkar	Lab Assitant	29-03-2023	Negative
10	Sanju Kharva	Animal keeper	29-03-2023	Negative
11	Balkrishna Shelke	Labour	29-03-2023	Negative
13	Mahesh Choughule	Animal keeper	29-03-2023	Negative
14	Amol shinde	Animal keeper	29-03-2023	Negative
15	Ramesh Pawar	Animal keeper	29-03-2023	Negative
16	Balu Waghmare	Animal keeper	29-03-2023	Negative
17	Arun Bhangane	Animal keeper	29-03-2023	Negative
18	Gurunath Narvekar	Compounder	29-03-2023	Negative
20	Ashish Tambe	Animal keeper	29-03-2023	Negative
22	Saif Khan	Labour	29-03-2023	Negative

23	Maruti Makadwala	Animal keeper	29-03-2023	Negative
24	Amit Waghmare	Labour	29-03-2023	Negative
25	Amethibalan	Labour	29-03-2023	Negative
26	Pratik Hate	Labour	29-03-2023	Negative
27	Sachin Satam	Labour	29-03-2023	Negative
28	Mahesh Kashte	Labour	29-03-2023	Negative
30	Suresh Rathod	Animal keeper	29-03-2023	Negative
33	Siddharth Kadam	Animal keeper	29-03-2023	Negative
34	Aakash Dherbhere	Labour	29-03-2023	Negative
35	Dr. S.A. Tripathi	Director (Zoo)	29-03-2023	Negative
36	Dr. Devanand Sirsat	Curator	29-03-2023	Negative
37	Dr. Dipika Valsarajan	V.O.	29-03-2023	Negative
38	Dr. Abhishek Satam	Biologist	29-03-2023	Negative

## **18. Developmental Works carried out in the zoo during the year 2022-23**

Indian Wolf, Barasinga, Barking Deer, Spotted Deer enclosure and Bird Aviary and Magar Gharial exhibit has been completed

## **19. Education and Awareness programmers during the year**

### **International Leopard Day 3<sup>rd</sup> May 2023**

In memory of the famous Leopard Ajoba, the first to be radio-collared in Maharashtra, Dainik Tarun Bharat in collaboration with Wildlife Conservation Society - India and Veermata Jijabai Bhosale Botanical Udyan and Zoo, Policy Advocacy Research Centre and We Work celebrated International Leopard Day on 3rd May 2023.

The event started with Vaidya Athreya, project head sharing her memories of the first radio collared leopard Ajoba followed by felicitation of the team members of the different NGO and Forest Dept Staff involved in leopard rescue and awareness.

The event was concluded by the presentation of the Virtual video on the leopard exhibit of Veermata Jijabai Bhosale Botanical Udyan and Zoo.

### **Mission LiFE 2023**

The Hon'ble Prime Minister of India's Mission Life concept was used to organize workshops and programs around the nation on a variety of topics, including waste management, healthy lifestyle, recycling, water conservation, electricity saving, and plastic use, in an effort to raise awareness among students and the general public. As part of this concept, as per the instructions received from the Central Zoo Authority, various activities were carried out at Veermata Jijabai Bhosle Botanical Udyan and Zoo, Byculla under the program "Mission Life" from 5th May to 5th June 2023.

As a part of the Mission LiFE campaign, Zoo Biologist Dr. Abhishek Satam explained the concept of Mission Life to all the animal keepers at Veermata Jijabai Bhosle Botanical Udyan and Zoo following which everyone pledged their support and participation towards this mission.

In Mission LiFE campaign we conducted the 'Nurtured by Nature Kids Workshop' at the Mumbai Zoo. It was indeed a fun learning experience for kids making natural colours using different fruits and vegetables and using them to create some lovely paintings! The kids also enjoyed making simple Warli paintings on pebbles which were followed by an interesting game of 'Web of Life' wherein they learnt how each and every animal has an important role to play in our ecosystem. The workshop ended with the kids undertaking an oath towards inculcating good habits to live a sustainable lifestyle.

A guided zoo and botanical trail was conducted for the visitors. They were enlightened on the goals of this mission following which the visitors pledged their support and participation

towards mission LiFE.

Harness the power of sun- A fun activity was conducted for students to learn about the potential of solar energy while creating a "Do It Yourself" solar lamp.

A Kokedama workshop organized by the Mumbai Zoo in collaboration with Naturalist Foundation demonstrated how to grow an air purifying plant in a moss ball. All the participants enjoyed making their own Kokedama.

The Mumbai Zoo has been conducting the Mission LiFE campaign under which a workshop on "Nurtured by Nature" was organized for children at the zoo. Children learnt how to make the best out of waste and also made their own seed papers. Finally, through a very fun game, the children understood how dolphins find their food and how they are affected by human activities.

As part of this Mission LiFE campaign, a workshop on composting was organized at the zoo. Steps to make compost at home using simple organic kitchen waste were demonstrated. The participants were then taken to the vermicompost plant of the Mumbai Zoo to show the actual process of converting the zoo's plant waste into vermicompost.

### **International Tiger Day 29<sup>th</sup> July 2023**

On the occasion of International Tiger Day, Veermata Jijabai Bhosle Botanical Udyan and Zoo organized an expert lecture by Mr. Amol Kumbhar, who gave an insightful analysis of the tiger project. Zoo staff, zookeepers and students of Maharshi Dayanand College were enlightened about the care, data collection, analysis and detailed study of tiger enumeration in the forest while working on the Project Tiger.

On the occasion of International Tiger Day, zookeepers, zoo labours and veterinary officers who worked day and night to take care of the newborn tiger cubs born in the Tiger Exhibit at Veermata Jijabai Bhosle Botanical Udyan and Zoo were appreciated and felicitated.

### **Big Butterfly Month 1<sup>st</sup> September 2023**

A panel discussion on 'Conservation of butterflies and their habitats' was hosted at Veermata Jijabai Bhosale Botanical Udyan and Zoo to celebrate Big Butterfly Month in collaboration with the Zoology Club, K.J. Somaiya College, Somaiya Trust and Photowalk. The illuminating discussion by panelists, Mr. Issac Kehimkar, Dr. Raju Kasambe, Dr. Amol Patwardhan and Mr. Paresh Churi enlightened and encouraged the students of M.D College, Mumbai Veterinary College and few butterfly enthusiasts to participate in various butterfly conservation activities

### **Wildlife Week 2023 (2<sup>nd</sup> Oct – 8<sup>th</sup> Oct, 2023)**

**Day 1** of the Wildlife week: Vann ki Baat: Expert Talk, Miss Chahat Yadav, a nature educator described the various negative effects of plastic pollution on marine life and how as a responsible

citizen we can reduce the use of plastic in our day to day life.

**Origami:** Paper Folding Craft activity was organized to create awareness through art. Visitors responded enthusiastically to the workshop and enjoyed making sea creatures through the art of origami.

**Clay Creation of the Deep: Modeling Marine Marvels** activity was organized to create awareness through art. Visitors responded enthusiastically to the workshop and enjoyed making sea creatures through the art of clay modelling

**Day 2** of the Wildlife Week, during the tree trail - 'Talk with Trees', the visitors were informed about different aspects of the heritage trees from six continents of the world at the Veermata Jijabai Bhosle Botanical Udyan and Zoo.

**Vann ki Baat:** Expert Talk, Mr. Aditya Gadkari (Nature educator: Naturalist foundation) described how laterite plateaus are biodiversity hubs and why they need to be protected. He also highlighted the efforts taken by the locals in the conservation of laterite plateaus to the participants.

**Day 3** As a part of Wildlife Week celebration, Veermata Jijabai Bhosle Botanical Udyan and Zoo and Education Department of Brihanmumbai Municipal Corporation organised an event for school students of BMC schools on 4th Oct, 2023. In this program, information brochures of various educational programs organized at Veermata Jijabai Bhosle Botanical Udyan and Zoo were released by the dignitaries present.

Keeper's day celebration

**Day 4** of Wildlife Week 2023, Veermata Jijabai Bhosle Botanic Udyan and Zoo organized Vann Ki Baat: Guided Experts program where Miss. Drashti Danani Danani took a unique journey into the world of insects through her lecture. She explained in this lecture why there are certain types of insects and why they are important in Nature.

**Craft the Miniature World of Creepy Crawlers:** A Clay Modelling activity was organized to create awareness through art. Visitors responded enthusiastically to the workshop and enjoyed making insects through the art of clay modelling.

**Creeping Crawlies:** An Insect Trail was organised where visitors were informed about insects by experts at the special butterfly garden at Veermata Jijabai Bhosle Botanical Udyan and Zoo.

**Day 5** of wildlife week Zoo organized Vann Ki Baat: Experts talk where Mr. Naman Kaji explained the secrets of the snake world and detailed information about snakes to the school children.

To dispel some of the superstitions around snakes, an exhibition on reptile awareness was organised near the band stand area of Veermata Jijabai Bhosale Botanical Udyan and Zoo.

**Day 6** of Wildlife Week 2023, Veermata Jijabai Bhosle Botanic Udyan and Zoo organized Vann Ki Baat: Experts talk where Mr. Naman Kaji explained about Endemic Mammal species of Western Ghats and their importance.

**Mammals Marvel Trail:** A Nature trail focusing on free ranging mammals found in Veermata Jijabai Bhosale Botanical Udyan and Zoo was organised where visitors were informed about mammals by experts.

Zoo organized a nature journaling workshop by a wildlife illustrator, Mr. Daniel, where he explained and demonstrated how to capture nature using art.

### **Bird Week 2023 (5<sup>th</sup> Nov – 10<sup>th</sup> Nov, 2023)**

#### **Day 1**

Birds in pencil strokes : Arts Exhibition , As a part of 'Bird Week 2023', The Veermata Jijabai Bhosale Botanical Udyan and Zoo organised Flying strokes – an art exhibition featuring Sweta Kotwadekar-Desai's stunning pencil drawings of different birds.

A Journey through the Garden: - A big flock of bird lovers gathered and had a wonderful time as they enjoyed birding at Veermata Jijabai Bhosale Botanical Udyan and Zoo as a part of Bird Week 2023 celebration

On 5th November during the Bird week celebration at Veermata Jijabai Bhosale Botanical Udyan and Zoo, ornithologist Mr. Prathamesh Desai delivered a lecture on the topic 'Mumbai Wingscape' during the session of 'Vann Ki Baat'. He shed light on the remarkable bird diversity within Mumbai, the challenges faced in the urban habitat and spoke about the variety of migratory birds found in Mumbai.

The ZooVisitors were treated by the team of 'Naturalist Foundation' to a captivating experience of birding. The visitors were guided on how to identify birds based on appearance and bird calls along with information about their habitat, diet and behaviour.

Bird enthusiasts met over high tea in the session 'Concert of Gossip and Chats', wherein conversations revolved around how birds must be communicating with each other and what would be their likely food preferences. The gathering explored the concept of friendship among birds, including the idea of friendship rings. The delightful 'Concert of Chats' concluded with a shared cup of tea.

#### **Day 2**

On 6th November, As a part of 'Bird Week 2023' various activities have been organized for bird lovers and visitors during this week at Veermata Jijabai Bhosle Botanical Udyan and Zoo. Under the 'Flock Focus' program the visitors were given detailed information about the birds in the zoo, their movements, daily routines and other characteristics which helped them to know the birds in a better way.

A special workshop on making some unique nests and feeders for birds was organized by Veermata Jijabai Bhosle Botanical Udyan and Zoo as a part of 'Bird Week 2023'. School children and interested visitors participated in this workshop. Different nests and bird feeders were made using recycled materials which we use in our day-to-day life.

#### **Day 3**

On 7th November, as a part of Bird Week 2023, Veermata Jijabai Bhosale Botanical Udyan and Zoo organised 'Paper Plumage: An Origami workshop in association with 'Naturalist Foundation' team. During this workshop, visitors and children made a replica of their favourite bird using papers.

Zoo along with 'Naturalist Foundation' organised 'Flock focus' program. In this program, visitors and students were guided by bird experts who shared information about the birds present in 'Aquatic Birds' and 'Birds Paradise' exhibit of the Zoo. The experts also enlightened the visitors about the bird's daily routine, their activities and other characteristics.

Vann Ki Baat: Bird Migration in India: Mr. Avinash Bhagat delivered an informative lecture on "Bird Migration in India" in the session 'Vann ki baat ' at the 3D auditorium in Veermata Jijabai Bhosale Botanical Udyan and Zoo. Mr. Avinash Bhagat spoke on different aspects of bird migration - like Which species migrate , How and Why do the birds migrate and What are the challenges faced by the birds during migration. He also emphasised on what precautions should be undertaken by humans.

Avian Insights : A workshop on Bird Characteristics for College Students :- As a part of Bird Week 2023, On 9th November, The Veermata Jijabai Bhosale Botanical Udyan and Zoo along with 'Naturalist Foundation' organised 'Avian Insights : A workshop on Bird Characteristics for College Students. In this workshop 'Naturalist Foundation' volunteers explained the visitors on how do birds travel from their origin country to different countries, birds nature & their characteristics.

#### **Day 4**

On 9th November, a series of lectures on understanding avian anatomy, anesthesia and celioscopy was organised at Veermata Jijabai Bhosale Botanical Udyan and Zoo for the veterinary students. Leading exotic animal vets in Mumbai, Dr. Shiwani Tandel and Dr. Amrita Deb with their insightful and interactive talks made it an enriching experience for the students.

#### **Day 5**

Meet and Express, Free interaction with animal keepers: Tourists who visited Veermata Jijabai Bhosale Botanical Udyan and Zoo received detailed information about the birds. They were briefed on the exhibition's features and its creation process. Additionally, the tourists were educated about the birds' dietary requirements and their care. Visitors had the opportunity to engage in open conversations with the animal keepers.

Bird's Up Close :- An interactive Awareness Experience: On 10th November, During 'Bird Week 2023' at Veermata Jijabai Bhosale Botanical Udyan and Zoo, visitors were treated by the team of Naturalist Foundation to a captivating experience of birding. The visitor were guided on how to identify birds based on appearance and bird calls along with information about their habitat, diet and behaviour.

#### **Nature & Wildlife Photography Workshop 17<sup>th</sup> December 2023**

A workshop on wildlife and nature, amidst nature. Hear the most eminent speakers in this domain narrate their interesting stories, experiences & learnings.

#### **Story X'press storytelling festival 9<sup>th</sup> February 2024**

The 5th annual Story X'press storytelling festival organised by Akshara foundation in collaboration with the Mumbai Zoo and Bhau Daji Lad Museum was celebrated today at Veermata Jijabai Bhosale Udyan and Zoo. The event featured diverse storytelling sessions, workshops, and

film screenings tailored for students aged from 8 to 14 years from various schools. A total of 300 school students participated in this engaging festival.

### **Coastwise Festival - Marine photography workshop 10<sup>th</sup> February 2024**

As a part of the month-long Coastwise Festival, a marine photography workshop was organised at Veermata Jijabai Bhosale Botanical Udyan and Zoo. In the workshop, renowned marine photographer Sarang Naik introduced the participants to the world of marine photography by giving useful insights about camera gears, accessories and tricks to get that beautiful shot! This event was organised in collaboration with Coastal Conservation Foundation, Mangrove Foundation and WWF.

### **Go Green event 17<sup>th</sup> February 2024**

The 'Go Green' event was organized by Don & Julio Foundation in association with Veermata Jijabai Bhosale Botanical Garden and Zoo. In this event, visitors and school children took part in various competitions like drawing, sketching, poetry and photography.

### **Photo Walk 18<sup>th</sup> February 2024**

Reflection thru my lenses in association BMC and Tamron India is organising a never before witnessed Photo Walk at the MUMBAI Zoo. "The Theme is MY MUMBAI MY ZOO". This photo walk will be driven in such a way that we capture the people's essence of the Zoo.

### **World Wildlife Day 3<sup>rd</sup> March 2024**

On the occasion of World Wildlife Day, Veermata Jijabai Bhosale Botanical Udyan & Zoo in collaboration with Mumbai Tarun Bharat hosted 'Sangeet Bibat Aakhyaan', a musical drama produced by Seetai Creations . The musical drama was presented as a part of awareness program revolving around the issue of human-leopard conflict and how to mitigate the problem by adopting the solution of co-existence to the varied audience from kids to ardent wildlife enthusiasts. Mr Kiran Shelar ,Editor - Tarun Bharat News group along with Dr Tripathi and the Director of Sangeet Bibat Aakhyan - Makrand Sawant and team members flagged off the first show of the musical drama at the 3D auditorium of Zoo. Dr Tripathi also expressed that wildlife awareness in the form of regional folk music will surely connect to the masses all over Maharashtra and urged people to experience the musical drama.

### **International Women's Day 9<sup>th</sup> March 2024**

On the occasion of International Women's Day, Veermata Jijabai Bhosle Botanical Udyan and Zoo in association with Anjuman Islam's Barrister A. R. Antulay College of Law arranged a special lecture by Miss. Smita Thul on Sexual Harassment of Women (Prevention, Prohibition and Redressal) Act for the women employees of the botanical garden and zoo. An awareness skit on domestic violence and the laws was also performed by the law students. Principal of Barrister A. R. Antulay College, Dr. Falknaz Shaikh and Mumbai Botanical Garden and Zoo staff attended this event.

## **20. Important events and happenings:-**

### **Death Anniversary of Veermata Jijabai Bhosale (as per date)**

The 348<sup>th</sup> Death Anniversary of Veermata Jijabai Bhosale, as per date was observed on Wednesday, the 17<sup>th</sup> June 2023. Dr. Sanjay Tripathi, Director (Zoo) paid homage to Jijamata by offering garlands to the statue of Veermata Jijabai Bhosale and Bal Shivaji at V.J.B.Botanical Udyan & Zoo other officials from V.J.B.Udyan & Zoo remained present at the occasion.

### **Death Anniversary of Veermata Jijabai Bhosale (as per the Solar Calender)**

The 348<sup>th</sup> Death Anniversary of Veermata Jijabai Bhosale, as per the Solar Calender was observed on Saturday, the 12<sup>th</sup> June 2023. Dr. Sanjay Tripathi, Director (Zoo) paid homage to Jijamata by offering garlands to the statue of Veermata Jijabai Bhosale and Bal Shivaji at V.J.B.Botanical Udyan & Zoo other officials from V.J.B.Udyan & Zoo remained present at the occasion.

### **Celebration of Birth Anniversary of Veermata Jijabai Bhosale at V.J.B.Botanical Udyan & Zoo (25<sup>th</sup> January 2024 - as per the Solar Calender)**

The 426<sup>th</sup> Birth Anniversary of Veermata Jijabai Bhosale was celebrated by offering garlands to the statues of Veermata Jijabai Bhosale & Balshivaji at the hands of Dr. Sanjay Tripathi, Director (Zoo) on 6<sup>th</sup> January 2023 at Veermata Jijabai Bhosale Udyan-Zoo. Other Zoo officials remained present to grace the occasion.

### **Celebration of 426<sup>th</sup> Birth Anniversary of Veermata Jijabai Bhosale at V.J.B.Botanical Udyan & Zoo (as per date) 12<sup>th</sup> January 2024**

The 425<sup>th</sup> Birth Anniversary of Veermata Jijabai Bhosale was celebrated by offering garlands to the statues of Veermata Jijabai Bhosale & Balshivaji at the hands of Dr. Sanjay Tripathi, Director (Zoo) on 12<sup>th</sup> January 2023 at Veermata Jijabai Bhosale Udyan-Zoo. Other Zoo officials remained present to grace the occasion.



## International Yoga Day 21<sup>st</sup> June 2023

On the occasion of International Yoga Day, Brihanmumbai Municipal Corporation in association with Prajapita Brahmakumari Ishwariya Vishwavidyalaya, arranged a Yoga Shibir at Mumbai Zoo. The event was done in collaboration with Security dept, BMC and presided over by, Dr Sanjeev Kumar - Additional Municipal Commissioner (Western Suburb). Deputy Municipal Commissioner (Gardens), Mr. Kishor Gandhi and Director (Zoo), Dr. Sanjay Tripathi, Chief Security Officer, Shri. Tawde, along with Security and Zoo staff also actively participated in yoga and meditation sessions.



## Zoo Awareness Programmes

**The programmes for creating interest and awareness about the order concept of zoo as per the National Zoo Policy 1998 were conducted.**

Students of Stephen high school for the deaf under the Montfort Care program visited the Mumbai Zoo on thursday, 22<sup>nd</sup> September 2022 as a part of their educational and vocabulary building trip. These 50 specially abled students were warmly greeted by the Director of Mumbai Zoo, Dr Sanjay Tripathi and by the Superintendent of Gardens, Mumbai , Mr Jitendra Paradeshi



On 9<sup>th</sup> and 10<sup>th</sup> February 2023 Dr. Sanjay Tripathi Director Zoo and Dr. Abhishek Satam were invited as Guest Speaker at K J Somaiya College of Science and Commerce for their annual festival Zorilla.

## **Internship Students**

Final year veterinary students from Mumbai Veterinary College started their internship at Mumbai zoo in batches of 10 students per month starting from 01.01.2022. The internship students are given training in wild animal restraining methods, handling remote drug delivery systems, hands on training during wound dressings, blood collection, necropsy etc., feed preparation, quality inspection and distribution of feed, providing enrichment to zoo animals etc.



## **21. Seasonal special arrangements for upkeep of animals**

### **Summer:**

1.) **Feed enrichment:** Whole fruits like watermelon and seasonal fruits, whole tender coconuts, ice lollies and ice fruit cakes made out of cut seasonal fruits and sweetened water with jaggery syrup are offered to monkeys and elephants. Whole watermelons and pumpkins are also provided to the hippopotamus.

### 2.) **Enclosure enrichment:**

Wet mud patches in the enclosures are provided for the deer to cool off in the Summer.

Small water pools are provided for the monkeys in the enclosures.

Roofs of the bird enclosures are covered with palm leaves.

### **Monsoon:**

Animal enclosure roofs are covered with Tarpaulin sheets.

Dry hay is provided in all animal houses and sheds of deer enclosures to keep the deer dry and warm during the rains. Similarly, jute gunny bags are provided to monkeys and hyaenas.

### **Winter:**

Dry hay is provided in all deer animal houses and sheds to keep the deer warm during Winter. Similarly, jute gunny bags are provided to monkeys and hyaenas.

### **Cyclone Nisarg:**

Tree trimming was carried out surrounding the animal enclosure in advance before the cyclone to prevent damage to enclosures and escape of animals. All carnivores were taken inside the feed house during the cyclone.

**22. Research work carried out and publications-** None

**23. Conservation breeding Programme of the zoo-** None

**24. Important cases during 2019-2020 at VJBU and Zoos**

## **MANAGEMENT OF INJECTION SITE ABSCESES FOLLOWING SUBCUTANEOUS ADMINISTRATION OF TRIQUIN (QUINAPYRAMINE SULPHATE AND QUINAPYRAMINE CHLORIDE) IN CAPTIVE LARGE FELIDS**

Trypanosomosis is commonly reported in captive wild animals in India. One of the prophylactic drug combinations used for Trypanosomosis is Quinapyramine sulphate and Quinapyramine chloride (inj. Triquin) which is administered subcutaneously. However, Triquin can cause irritation at the injection site if not diluted well or administered properly. Here we

discuss three cases of injection site abscesses- in a pair of Leopards and a Royal Bengal Tigress resulting from prophylactic Triquin injection. The abscesses in all three cases were of varying degrees and therefore different approaches of wound management were used. Surgical intervention, Chitosan bandaging and Ozone therapy were used for the treatment of deep abscess in the Tigress. Surgical intervention and daily wound dressing were used for the female Leopard whereas the abscess in the male Leopard healed only by daily wound dressing due to its small size. The felids were also given oral chymotrypsin, antibiotic and multivitamin supplements throughout the treatment. Proper approach to wound management helps to reduce the wound size and scarring at the wound site in these large felids. Proper dilution of inj. Triquin and careful administration can prevent injection site reactions.

**24. Animal Acquisition / transferred / exchange during the year- None**

**25. Rescue and Rehabilitation of wild animals carried out by the zoo- None**

## 26. Annual Inventory of animals

**Veer mata Jijabai Bhosale Udyan – Zoo, Mumbai**  
**Endangered Species (Sch I & II)**  
**Inventory from 01-04-2023 to 31-03-2024**

Sr. no	Species	Scientific Name	Stock as on 01-04-23				Birth			Acquired			Disposal			Death			Stock as on 31-03-24						
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T			
<b>A</b>	<b>Mammals</b>																								
1	Elephant Indian	<i>Elephas maximus</i>	0	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	1			
2	Macaque Rhesus	<i>Macaca mulatta</i>	4	4	15	23	-	-	2	-	-	-	-	-	-	1		-	3	4	17	24			
3	Swamp Deer	<i>Rucervus duvaucelli</i>	1	0	0	1	-	-	-	-	-	-	-	-	-	1	-	-	0	0	0	0			
4	Leopard	<i>Panthera pardus</i>	1	1	0	2	-	-	-	1	1	-	-	-	-	-	-	-	2	2	0	4			
5	Golden Jackal	<i>Canis lupus</i>	2	0	0	2	-	-	-	-	-	-	-	-	-	-	-	-	2	0	0	2			
6	Sloth Bear	<i>Melarsus ursinus</i>	0	1	0	1	-	-	-	1	-	-	-	-	-	-	-	-	1	1	0	2			
7	Striped Hyena	<i>Hyaena hyaena</i>	1	1	0	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0	2			
8	Royal Bengal Tiger	<i>Panthera tigris tigris</i>	1	2	0	3	4	-	-	-	-	-	-	-	-	2	1	-	3	1	0	4			
	<b>Total of A</b>		10	10	15	35	4	0	2	2	1	0	0	0	0	4	1	0	12	10	17	39			
<b>B</b>	<b>Birds</b>		<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>			
1	Hornbill Indian Pied	<i>Anthracoer os malabaricus</i>	0	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	1			
2	Indian Peafowl	<i>Pavo cristatus</i>	0	2	0	2				-	-								0	1	0	1			
	<b>Total of B</b>		<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>			
<b>C</b>	<b>Reptiles</b>		<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>			
1	Cobra Indian	<i>Naja naja</i>	1	0	0	1	-	-	-	-	-	-	-	-	-	1	-	-	0	0	0	0			
2	Crocodile Long Snouted	<i>Gavialis gangeticus</i>	2	0	0	2	-	-	-	-	-	-	-	-	-	-	-	-	2	0	0	2			
3	Crocodile Marsh (Mugger)	<i>Crocodylus palustris</i>	3	2	0	5	-	-	-	-	-		-	-	-		1	-	3	1	0	4			
4	Python Indian Rock	<i>Python molurus</i>	2	2	1	5	-	-	-	-	-	-	-	-	-	-	-	1	2	2	0	4			
5	Rat Snake	<i>Ptyas mucosus</i>	0	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	0	0	1	1			
6	Turtle Indian Black	<i>Melanochelys trijuga</i>	0	0	5	5	-	-	-	-	-	-	-	-	-	-	-	-	0	0	5	5			
7	Indian Flapshell Turtle		0	0	9	9	-	-	5	-	-	-	-	-	-	-	-	5	0	0	9	9			
	<b>Total of C</b>		<b>8</b>	<b>4</b>	<b>16</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>7</b>	<b>3</b>	<b>15</b>	<b>25</b>			
	<b>Total of A+B+C</b>		<b>19</b>	<b>17</b>	<b>31</b>	<b>66</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>19</b>	<b>15</b>	<b>32</b>	<b>66</b>			
							( 9 Flap shell turtles found in Crocodile Pond in zoo premises while dewatering the Pond)																		

Veer mata Jijabai Bhosale Udyan – Zoo, Mumbai																						
Species (Sch III & IV)																						
Annual Inventory from 01-04-2023 to 31-03-2024																						
Sr. no	Endangered Species	Scientific Name	Stock as on 01-04-23				Birth			Acquired			Disposal			Death			Stock as on 30-03-24			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Crane Sarus	<i>Grus antigone</i>	1	0	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0	0	1
2	Heron Night	<i>Nycticorax nycticorax</i>	0	0	63	63	-	-	15	-	-	-	-	-	-	-	-	-	0	0	78	78
3	Parakeet Alexandrine	<i>Psittacula eupatria</i>	7	3	9	19	-	-	-	-	-	-	-	-	-	-	-	-	7	3	9	19
4	Pelican Rosy / White	<i>Pelecanus onocrotalus</i>	1	1	0	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0	2
5	Stork Adjutant	<i>Leptoptilos dubius</i>	1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	3
6	Stork Painted	<i>Mycteria leucocephala</i>	0	1	11	12	-	-	1	-	-	-	-	-	-	-	-	-	0	1	11	12
	<b>Total of D</b>		<b>10</b>	<b>6</b>	<b>85</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>6</b>	<b>99</b>	<b>115</b>
<b>E</b>	<b>Mammals</b>		<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>
1	Barking Deer	<i>Muntiacus Muntjack</i>	5	10	5	20	-	-	2	-	-	-	-	-	-	3	3	1	2	7	6	15
2	Sambar Deer	<i>Cervus unicolor</i>	1	2	0	3	-	-	-	-	-	-	-	-	-	-	-	-	1	2	0	3
3	Spotted Deer	<i>Axis axis</i>	6	2	12	20	-	-	2	-	-	-	-	-	-	-	-	8	6	2	6	14
4	Wild Boar	<i>Sus scrofa</i>	0	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	1
	<b>Total of E</b>		<b>12</b>	<b>15</b>	<b>17</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>9</b>	<b>9</b>	<b>12</b>	<b>12</b>	<b>33</b>
	<b>Total of D + E</b>		<b>22</b>	<b>21</b>	<b>102</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>19</b>	<b>18</b>	<b>111</b>	<b>130</b>

Veer mata Jijabai Bhosale Udyan – Zoo, Mumbai																						
Other Species (Sch III & IV)																						
Annual Inventory from 01-04-2023 to 31-03-2024																						
Sr. no	Species ( III & IV)	Scientific Name	Stock as on 01-04-23				Birth			Acquired			Disposal			Death			Stock as on 30-03-24			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
<b>E</b>	<b>Birds</b>																					
1	Budgerigar	<i>Melopsittacus undulates</i>	6	5	0	11	-	-	-	-	-	-	-	-	-	4	2	-	2	3	0	5
2	Cockatiel grey + White	<i>Nymphicus hollandicus</i>	0	1	44	45	-	-	20	-	-	-	-	-	-	-	-	-	0	1	64	65
3	Crane Crowned Red	<i>Grus japonicus</i>	3	2	0	5	-	-	-	-	-	-	-	-	-	-	-	-	3	2	0	5
4	Emu	<i>Dromaius novaehollandiae</i>	0	0	3	3													-	1	0	2
5	Macaw Military	<i>Ara militaris</i>	3	1	0	4	2	2		-	-	-			-	-			5	3	0	8
6	Parrot African Grey	<i>Psittacus erithacus</i>	2	6	0	8	-	-	-	-	-	-							2	6	0	8
7	Humboldt Penguin	<i>Spheniscus humboldti</i>	5	4	0	9	4	1		-	-	-						-	9	5	0	14
8	Pheasant Golden	<i>Chrysolophus pictus</i>	3	2	0	5	-	-	1	-	-	-				1	1	-	2	1	1	1
	<b>Total</b>		<b>22</b>	<b>21</b>	<b>47</b>	<b>90</b>	<b>6</b>	<b>3</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>23</b>	<b>21</b>	<b>67</b>	<b>111</b>

			( 1unknown Emu identified as males on Necropsy)																			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Hippopotamus	<i>Hippopotamus amphibius</i>	2	2	0	4				-	-	-	-	-	-				2	2	0	4
			<b>Mammals – 12 species, 76, Birds – 16 species, 228, Reptiles – 6 species, 25</b>																			

<b>Acquisition report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan &amp; Zoo from 01-04-2022 to 30-03-2023</b>					
<b>Sr. No.</b>	<b>Name of Species</b>	<b>Scientific name</b>	<b>Date of Acquisition</b>	<b>No. &amp; Sex</b>	<b>Remarks</b>
1	Cockatiel	Nymphicus hollandicus	11.05.2021	29U	Handed over by Forest Dept on
2	Pheasant Golden	Chrysolophus pictus	30.07.2021	3M 3F	Donation from Aviary Paradise, Bangalore
3	Parrot African Grey	Psittacus erithacus	09.09.2021	3M 3F	Donation from Aviary Paradise, Bangalore

<b>Disposition report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan &amp; Zoo from 01-04-2022 to 30-03-2023</b>					
<b>Sr. No.</b>	<b>Name of Species</b>	<b>Scientific name</b>	<b>Date of Disposition</b>	<b>No. &amp; Sex</b>	<b>Remarks</b>

<b>Annual Birth report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan Zoo from 01-04-2022 to 30-03-2023</b>				
<b>Sr. No.</b>	<b>Name of Species</b>	<b>Scientific name</b>	<b>Date of Birth</b>	<b>No. &amp; Sex</b>
1	Humboldt Penguin	Spheniscus humboldti	02/04/22	1M
2	Humboldt Penguin	Spheniscus humboldti	26/04/2022	1M
3	Pheasant Golden	Chrysolophus pictus	9/5/2022	1U
4	Cockatiel	Nymphicus hollandicus	27/05/2022	4U
5	Indian Flapshell Turtle	Lissemys punctata	10/6/2022	5U
6	Humboldt Penguin	Spheniscus humboldti	09/08/22	1M
7	Barking Deer	Muntiacus Muntjack	18/08/2022	1U
8	Parakeet Alexandrine	Psittacula eupatria	04/09/22	1U
9	Rhesus Macaque	Macaca mulata	22/09/2022	1U
10	Humboldt Penguin	Spheniscus humboldti	02/10/22	1M
11	Cockatiel	Nymphicus hollandicus	22/10/2022	2U
12	Royal Bengal Tiger	Panthera tigris tigris	04/11/22	4M

13	Humboldt Penguin	<i>Spheniscus humboldti</i>	13/12/2022	1M
14	Heron Night	<i>Nycticorax nycticorax</i>	21/01/2023	15U
15	Cockatiel	<i>Nymphicus hollandicus</i>	23/01/2023	10U
16	Cockatiel	<i>Nymphicus hollandicus</i>	01/02/23	04U
17	Barking Deer	<i>Muntiacus Muntjack</i>	10/02/23	1U
18	Stork Painted	<i>Mycteria leucocephala</i>	19/02/2023	1U
19	Rhesus Macaque	<i>Macaca mulata</i>	24/02/2023	1U
20	Heron Night	<i>Nycticorax nycticorax</i>	30/1/2022	4U
21	Spotted Deer	<i>Axis axis</i>	4/3/2023	1U
22	Spotted Deer	<i>Axis axis</i>	14/03/2023	1U

## 27. Mortality of Animal

Death/Disposed report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan Zoo from 01-04-2023 to 30-04-2024					
Sr. No.	Name of Species	Scientific name	Date of Death	No. & Sex	Cause of Death/Disposal
1	Barking Deer	<i>Nymphicus hollandicus</i>	09.04.2023	1M	Cardiac shock
2	Stork Painted	<i>Axis axis</i>	24.05.2023	1F	Cardiac Shock, infight injury
3	Stork Painted	<i>Psittacula alexandri</i>	30.05.2023	1M	Cardiac Shock, infight injury
4	Crocodile Marsh (Mugger)	<i>Axis axis</i>	31.05.2023	1M	Multiple organ failure
5	Pheasant Golden	<i>Macaca mulatta</i>	22.06.2023	1M	Hepatic failure
6	Crocodile Marsh (Mugger)	<i>Axis axis</i>	02-07-23	1F	Hepatic failure
7	Stork Painted	<i>Melopsittacus undulates</i>	06-07-2023	1M	Respiratory failure
8	Parrot African Grey	<i>Canis lupus</i>	14-07-2023	1F	Cardiac Shock
9	Crane Sarus	<i>Axis axis</i>	15-07-23	1F	Egg retention
10	Pheasant Golden	<i>Melopsittacus undulates</i>	15-07-23	1M	Cardiac shock, infight injury
11	Barking Deer	<i>Nymphicus hollandicus</i>	28-07-23	1F	Renal failure
12	Spotted Deer	<i>Melopsittacus undulates</i>	23-08-23	1F	Cardiac Shock
13	Spotted Deer	<i>Nymphicus hollandicus</i>	27-08-23	1M fawn	Cardiac Shock
14	Spotted Deer	<i>Lissemys punctata</i>	28-08-23	1F	Respiratory failure
15	Stork Painted	<i>Nymphicus hollandicus</i>	29-08-2023	1	Sent for taxidermy
16	Wild Boar	<i>Psittacula eupatria</i>	30-08-23	1F	Multiple organ failure
17	Barking Deer	<i>Axis axis</i>	12-09-23	1M fawn	Injury, cardiac shock
18	Barking Deer	<i>Nymphicus hollandicus</i>	14-09-23	1M fawn	Cardiac Shock
19	Barking Deer	<i>Axis axis</i>	23-09-23	1F	Cardiac Shock, infight wounds
20	Barking Deer	<i>Dromaius novaehollandiae</i>	10-10-23	1F	Caecal torsion
21	Spotted Deer	<i>Nymphicus hollandicus</i>	05-12-2023	1F	Respiratory failure, old age
22	Barking Deer	<i>Cervus unicolor</i>	23-12-23	1M fawn	Cardiac Shock, infight injury on hind limb
23	Barking Deer	<i>Melopsittacus undulates</i>	09.01.2024	1M	Suspected Tetanus
24	Spotted Deer	<i>Muntiacus Muntjack</i>	14.01.2024	1M	Cardiac failure, Old age
25	Barking Deer	<i>Nymphicus hollandicus</i>	16.01.2024	1M	Multiple organ failure, old age
26	Budgerigar	<i>Melopsittacus undulates</i>	17.01.2024	1M	Ascites, hepatic failure
27	Barking Deer	<i>Melopsittacus undulates</i>	03.02.2024	1F	Respiratory failure, old age
28	Budgerigar	<i>Axis axis</i>	20.02.2024	1F	Old age

28. Status of the Compliance with conditions stipulated by the Central Zoo Authority

Sr. No.	Norm No.	Details on the conditions stipulated by the Central Zoo Authority, New Delhi, MoEF	Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo
<b>2. Administrative and Staffing Pattern :</b>			
1	10.2 (1)	The financial powers of the Director for purchasing items or daily use are not sufficient for such a large zoo. It should be increased substantially.	The financial powers for Director are currently Rs.40,000/- for daily expenditure and for tendering procedure up to Rs.20,00,000/- as per current MCGM norms.
2	10.2 (2)	Recruitment of Veterinary support staff should be completed early.	Lab Technician post has been approved and being advertised for recruitment.
<b>3. Development and Planning :</b>			
3	10.3 (6)	The implementation of collection plan as approved by the CZA should start early.	This Zoo has already initiated compliance in this regard by adding various species like, Tiger, Leopard, Jackal, Hyena, etc. as per new approved Animal Collection Plan and these animals are displayed in newly developed exhibits.
4	10.3 (7)	Proposal should be forwarded for consideration of the CZA for transfer of rescued wild animals for which the zoo does not have off-display housing facility of prescribed design and dimension.	At this stage, this zoo has (1) one rescued Malabar Pied Hornbill for which PCCF, Wildlife has granted permission to retain the bird at Zoo since it is unfit to be released in wild. In due course, permission will be sought from CZA, for the acquisition of the said bird in Zoo's Animal

			Collection Plan.
<b>4. Animal Housing, display of animals and animal enclosures :</b>			
5	10.4 (10)	The interpretation centre should be made functional.	The interpretation centre will be made functional within 2 months.
<b>5. Upkeep and health care of animals :</b>			
6	10.5 (3)	Sufficient size freezer for shortage of meat products should be purchased immediately.	Complied. The zoo has purchased two (2) deep freezers (500 kg capacity) in addition to one already existing for storage of meat products.
<b>9. Acquisition and breeding of animals :</b>			
7	10.9 (4)	The lone Malabar Pied Hornbill should be transferred to some other Zoo or paired here only.	This Zoo will initiate the exchange proposal for pairing of the lone Malabar pied hornbill.
8	10.9 (4)	Single female sloth bear should be paired or transferred to some other Zoo.	This zoo has already submitted animal exchange proposals to various zoos having sloth bear male in excess. This zoo has already finalized animal exchange proposal with Indore Zoo, who have agreed to spare a pair of Sloth bear. The proposal is awaiting nod from CZA.

<b>11. Education and outreach activities :</b>			
9	10.11 (1)	Various visitors' facilities should be created along with dedicated website for the Zoo and conducted tours should be started.	Various visitors' facilities like shelters, pyau, toilets have been developed and made operational.  To develop dedicated website for the Zoo, the proposal has been initiated for administrative approval.
<b>12. Visitors facilities :</b>			
10	10.12 (1)	Since the Zoo is situated in the densely populated south Mumbai, battery operated vehicles will be of great help to the visitors.	The facility of battery operated vehicles is included in the comprehensive revenue income plan, which is under process. Very soon this facility will be made available for the visitors.

## **29. List of free living wild animals within zoo premises**

### **Mammals:**

1. Mongoose
2. Fruit Bats
3. Three striped Palm Squirrel

### **Birds:**

1. Common House Crow
2. Jungle Crow
3. Rose-ringed Parakeet
4. Alexandrine Parakeet
5. Plum Headed Parakeet
6. Indian Grey Hornbill
7. Black Kite
8. House Sparrow
9. Common Mynah
10. Eurasian Cuckoo
11. White-throated Kingfisher
12. Purple-rumped Sunbird
13. Cattle Egret
14. Grey Heron
15. Pond Heron
16. Night Heron
17. Copper-smith Barbet

18. White-breasted Water-hen
19. Ashy Drongo
20. Golden Oriole
21. Tailor Bird
22. White-browed Fantail
23. Spotted Owlet
24. Rock Pigeon
25. Indian Cormorant
26. Crow Pheasant
27. Magpie Robin
28. Red-vented Bulbul
29. Red- whiskered Bulbul
30. Barn owl
31. Paradise Flycatcher

**Reptiles:**

1. Checkered Keelback
2. Common Rat Snake
3. Skinks
4. Geckos
5. Garden Lizards
6. Worm Snake
7. Wolf snake

