

# VEERMATA JIJABAI BHOSALE UDYAN & ZOO

Annual Report for the year  
2021-22



## **CONTENTS**

<b>S.No</b>	<b>Section</b>	<b>Page Number</b>
1.	Report of the Officer-in-charge	3-4
2.	History of the Zoo	5
3.	Vision	6
4.	Mission	7
5.	Objective	8
6.	About us	9-11
7.	Organizational Chart	12
8.	Human Resources	13-14
9.	Capacity Building of the zoo personnel	15
10.	Zoo Advisory Committee	15
11.	Health Advisory Committee	15
12.	Statement of income and expenditure of the Zoo	15
13.	Daily feed Schedule of animals	16-22
14.	Vaccination Schedule of animals	23-24
15.	De-worming Schedule of animals	25

<b>S.No</b>	<b>Section</b>	<b>Page Number</b>
16.	Disinfection Schedule	26
17.	Health Check-up of employees for zoonotic diseases	26-27
18.	Development Works carried out in the zoo during the year	28
19.	Education and Awareness programmes during the year	28-40
20.	Important Events and happenings in the zoo	40-53
21.	Seasonal special arrangements for upkeep of animals	54
22.	Research Work carried out and publications	54
23.	Conservation Breeding Programme of the Zoo	54
24.	Animal acquisition / transfer / exchange during the year	55
25.	Rescue and Rehabilitation of the wild animals carried out by the zoo	55
26.	Annual Inventory of animals	56-61
27.	Mortality of animals.	62-63
28.	Status of the Compliance with conditions stipulated by the Central Zoo Authority	64-66
29.	List of free living wild animals within the zoo premises	67-68

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

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

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

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

Veerмата Jijabai Bhosale 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**

Vermata Jijabai Bhosale 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.

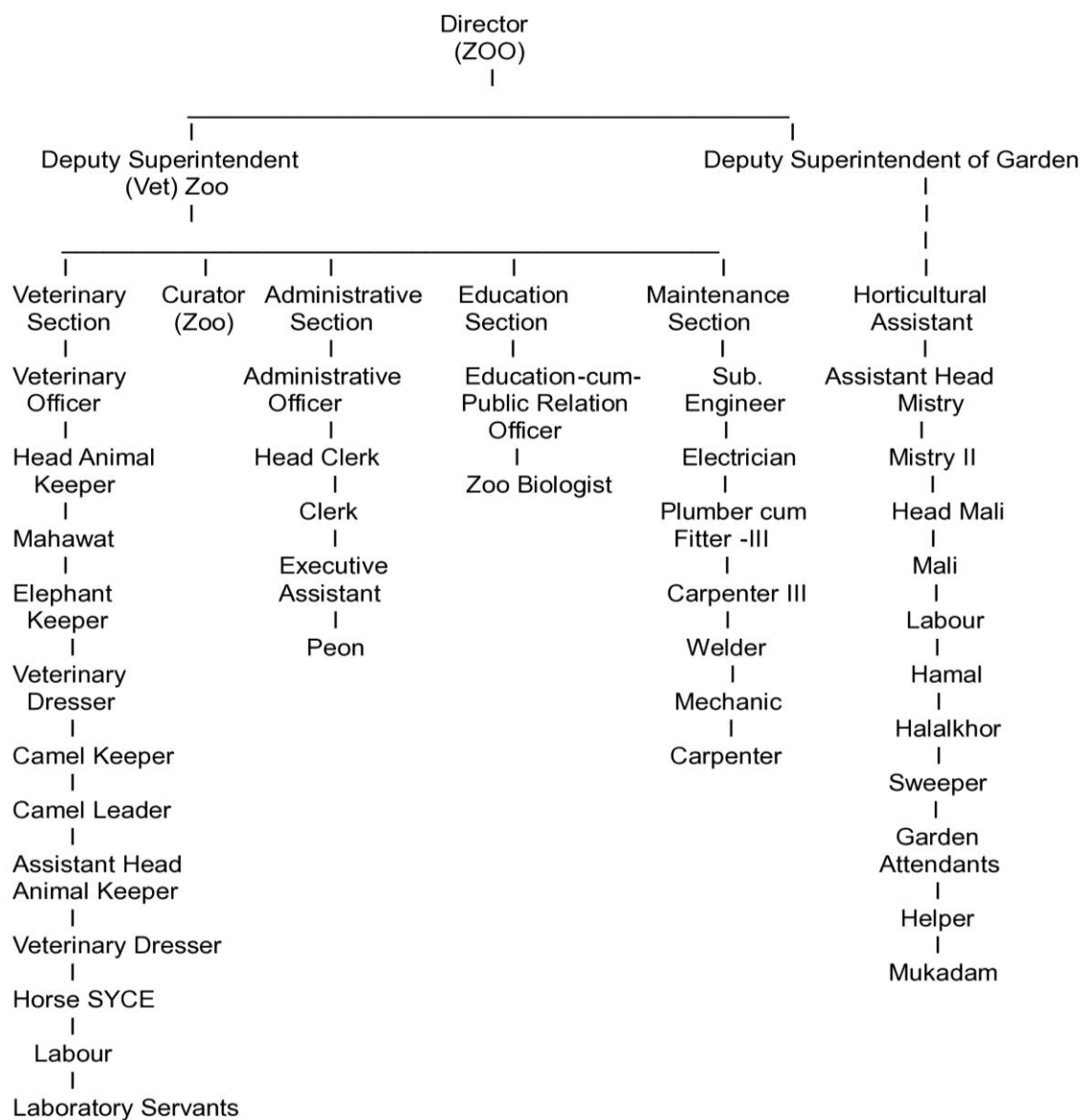
## **6. About us**

<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 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>22/03/2020</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: <b><u>101591</u></b>
		Children: <b><u>31721</u></b>
		Total Indian: <b>133312</b>
		Adult: <b>14</b> Children: <b>0</b> Total Foreigners: <b><u>14</u></b> Date 05.02.2021 to 31.03.2021
		Total Visitors: <b><u>1333269+</u></b>
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>Shri. Abhishek N. Satam</b>
	Name of the Education Officer	-
	Name of the Compounder/ Lab Assistant	<b>Shri. Gurunath Narvekar (till Nov 2020)</b> <b>Shri. Arun Bhagane (In Charge)</b>
<b>Owner / Operator of the Zoo</b>		
17	*Name of the Operator	<b>Municipal Commissioner.</b> <b>Municipal Corporation of Greater</b> <b>Mumbai</b>
18	Address of the Operator	<b>2<sup>nd</sup> Floor, Municipal Head Office,</b> <b>Mumbai- 400 001.</b>
19	Contact details/Phone number of Operator	<b>022- 22620251</b> <b>022-22620525</b>
20	E-mail address of Operator	<b>mc@mcbgm.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.	Mr. Siddharth Kadam Mr. Mahesh Kashte Zoo animal keeper	Online workshop for zoo keeper on Reptile management	15 <sup>th</sup> -17 <sup>th</sup> March 2021	Indira Gandhi Zoological park Visakhapatnam

## **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**

**Financial Year 2020-21****Annual Revenue (Rs.) Entry fees**

4,40,14,695

**Annual Expenditure (Rs.)**

Allotted Revenue Budget

Consumed Revenue  
Expdt.Allotted Capital  
BudgetConsumed Capital  
Expdt**46.80 Cr.****42.79 Cr.**

Nil

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 Covid 19 (RTPCR).

<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	05-09-2020	Negative
2	Israr Khan	Asst. Head Animal keeper	05-09-2020	Negative
3	Omkar Satardekar	Labour	05-09-2020	Negative
4	Ravindra Nivate	Animal keeper	05-09-2020	Negative
5	Arun Bhangane	Animal keeper	05-09-2020	Negative
6	Rakesh Jadhav	Animal keeper	05-09-2020	Negative
7	Jeetsingh Bali	Animal keeper	05-09-2020	Negative
8	Jamal Khan	Animal keeper	05-09-2020	Negative
9	Vilas Amberkar	Lab Assitant	05-09-2020	Negative
10	Sanju Kharva	Animal keeper	05-09-2020	Negative
11	Balkrishna Shelke	Labour	05-09-2020	Negative
13	Mahesh Choughule	Animal keeper	05-09-2020	Negative
14	Amol shinde	Animal keeper	05-09-2020	Negative
15	Ramesh Pawar	Animal keeper	05-09-2020	Negative
16	Balu Waghmare	Animal keeper	05-09-2020	Negative
17	Arun Bhangane	Animal keeper	05-09-2020	Negative
18	Gurunath Narvekar	Compounder	05-09-2020	Negative
20	Ashish Tambe	Animal keeper	05-09-2020	Negative
22	Saif Khan	Labour	05-09-2020	Negative

23	Maruti Makadwala	Animal keeper	05-09-2020	Negative
24	Amit Waghmare	Labour	05-09-2020	Negative
25	Amethibalan	Labour	05-09-2020	Negative
26	Pratik Hate	Labour	05-09-2020	Negative
27	Sachin Satam	Labour	05-09-2020	Negative
28	Mahesh Kashte	Labour	05-09-2020	Negative
30	Suresh Rathod	Animal keeper	05-09-2020	Negative
33	Siddharth Kadam	Animal keeper	05-09-2020	Negative
34	Aakash Dherbhere	Labour	05-09-2020	Negative
35	Dr. S.A. Tripathi	Director (Zoo)	05-09-2020	Negative
36	Dr. Devanand Sirsat	Curator	05-09-2020	Negative
37	Dr. Dipika Valsarajan	V.O.	05-09-2020	Negative
38	Abhishek Satam	Biologist	05-09-2020	Negative

## 18. Developmental Works carried out in the zoo during the year 2020-21

Indian Wolf enclosure has been completed and Bird Aviary 1 work completed except plantation.

## 19. Education and Awareness programmers during the year

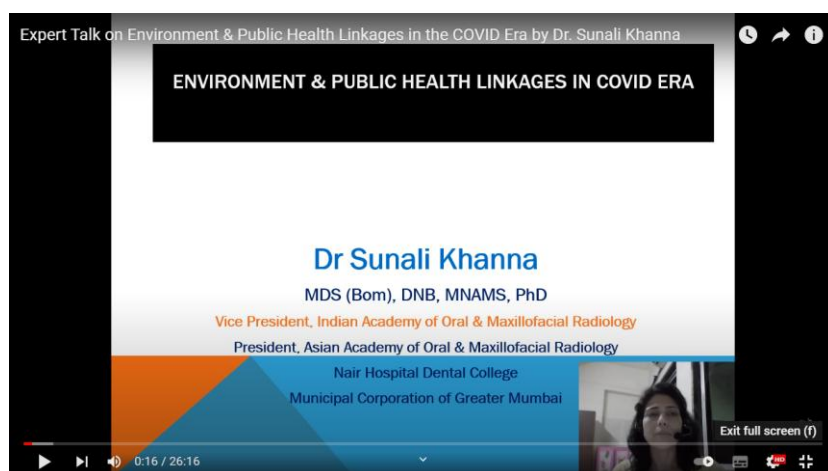
### Celebration of “World Environment Day” (5<sup>th</sup> June 2020)

On World Environment Day 2021, the honourable Mayor of Mumbai launched the trailer of 'Virtually Wild', a virtual tour of the zoo. This was followed by a tree plantation drive to add to the green cover in the city. Three rare trees not frequently seen in the city were a part of the drive - Krishna wad, the Rudraksha tree, and the White apple tree. After that there was Expert Talk on Environment & Public Health Linkages in the COVID Era by Dr. Sunali Khanna.

<https://www.youtube.com/watch?v=8SGdWv17peo&t=2s>



<https://www.youtube.com/watch?v=zu-1JgIzP4>



## World Sea Turtle Day (16 June)

On occasion of World Sea Turtle Day, an online talk on ‘Sea Turtle Conservation in Maharashtra’ was given by Mr. Mohan Upadhye who is an active member of the local community in Velas and Anjarle village working towards the conservation of these magnificent aquatic creatures and explain what we can do to aid these efforts.

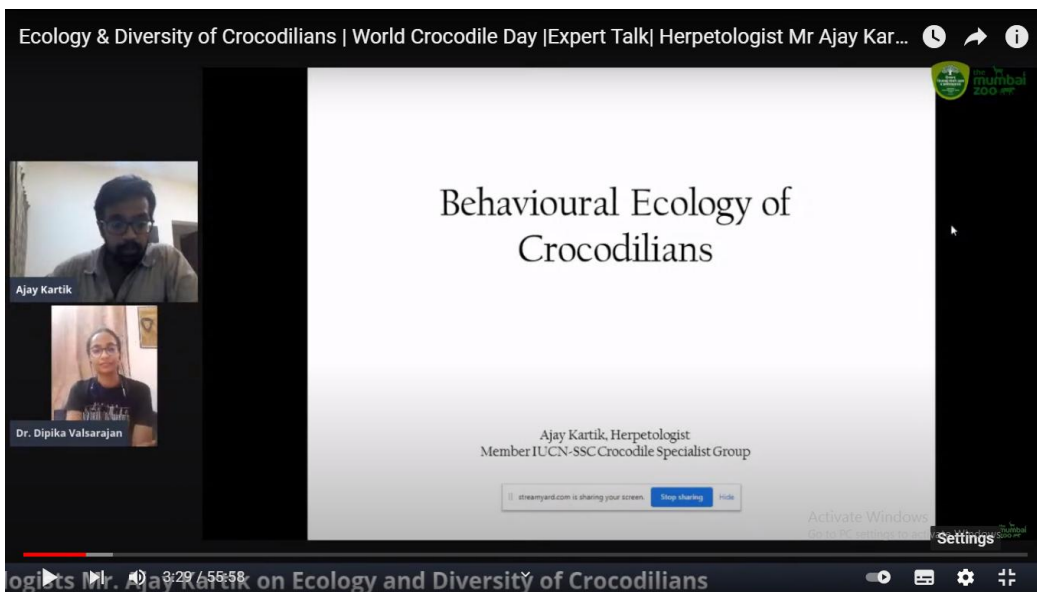
<https://www.youtube.com/watch?v=MxZ33Gi27us&t=7s>



## World Crocodile Day (17 June)

On occasion of World Crocodile Day, an online talk on ‘Ecology & Diversity of Crocodilians’ was given by Herpetologist Mr Ajay Kartik who was Assistant curator of the Madras crocodile bank and member of IUCN\_SSC Crocodile specialist group. He explained about the Behavioural Ecology & Diversity of Crocodilians.

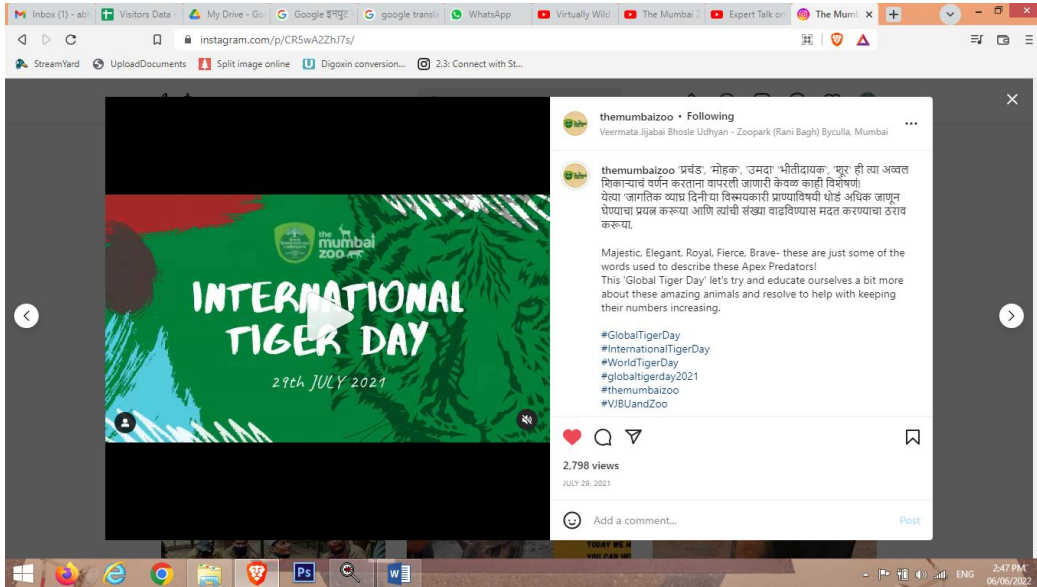
<https://www.youtube.com/watch?v=m5tydBLbQBg>



## **Celebration of “International Tiger Day” (29<sup>th</sup> July 2020)**

On 29/07/2020 International Tiger Day, we posted video on the importance of Tigers and the need to conserve them. Also we organized poster painting competition on the occasion of World Tiger Day

<https://www.instagram.com/p/CR5wA2ZhJ7s/>



## **15<sup>th</sup> August Independence Day**

On the proud occasion of Independence Day, Honourable Additional Municipal Commissioner Smt. Ashwini Bhide commences the release of the first episode of The Mumbai Zoo's (V.J.B. Udyan and Zoo) Virtual Tour series titled 'History of Rani Baug'.

<https://www.youtube.com/watch?v=SIKLqxk895k&t=331s>



## Celebration of Wildlife Week 2020 at the Mumbai Zoo

On 1st October 2021, the Hon'ble Mayor of Mumbai, Mrs. Kishori Pednekar inaugurated Wildlife Week 2021 and also unveiled the second episode of the 'Virtually Wild' series (Humboldt Penguin: A Successful Journey) of Veermata Jijabai Bhosale Udyan and Zoo.

<https://www.youtube.com/watch?v=FcKghR423oQ&t=366s>



On 02/10/2021, an online lecture on “City wildlife and their struggle for coexistence” was given by Mr. Baiju Raj M.V. Director of Conservation project at Wildlife SOS. He gave detailed information on how Human animal conflict happens and how to mitigate it. He also gave insights on how wild life conservation is done in the cities by Wildlife SOS.

<https://www.youtube.com/watch?v=qQOPZUEc3OI&t=11s>



On 3/10/ 2021 an online talk on “Mumbaikar Leopards” was given by Mr. Nikit Surve, Wildlife researcher at wildlife conservation society. He explained the importance about the Leopards of Aarey and SGNP. He also explained the how leopards behave in the wild. How the study is going on them.

<https://www.youtube.com/watch?v=uFDM-Xqz1aQ&t=36s>



On 4/10/2021 International Zookeeper's day was celebrated by engaging the zoo keepers in various activities like quiz, guess the animals, outdoor games etc.



On 5/10/2021 an online talk on “Forest Conservation through Public Participation” was given by Ms. Sonal Prabhulkar, Wildlife researcher and Founder president Sahyadri conservation. She explained about the work her doing in sahyadri forest with local contribution.

<https://www.youtube.com/watch?v=PhUoD60Ncvw>



On 6/10/2021 an online talk on “Mumbaikar Leopards” was given by Mr. Nikit Surve, Wildlife researcher at wildlife conservation society. He explained the importance about the Leopards of Aarey and SGNP. He also explained the how leopards behave in the wild. How the study is going on them.

<https://www.youtube.com/watch?v=te41kvUR4rA&t=17s>



On 7/10/2021 online talk was given by Dr. Mayuresh Gangal co-founder Know Your Fish. He explained an effort towards responsible seafood consumption in India

<https://www.youtube.com/watch?v=GfKaD8B7-wQ&t=4s>



Online photography competition:

During the wildlife week, the zoo also organized an online Wildlife Photography competition with the theme 'Biodiversity from your window. Splendid photo entries were received from all over India.

<https://www.facebook.com/MyMumbaiMyBMC/videos/341649980449315>

### **Reptile Awareness Day (21<sup>st</sup> October 2020)**

On occasion of Reptile Awareness Day, an online talk on 'Reptile Biodiversity of Amboli and its Conservation' was given by Mr. Mahadev Bhise who is an active member of the local community in Amboli working towards raising awareness among the people regarding the herpetofauna of Amboli and measures to conserve them

<https://www.facebook.com/MyMumbaiMyBMC/videos/2419553825012694>

### **Celebration of Bird Week 2020 at the Mumbai Zoo**

As a part of educational programs this year, the Revenue and Forest Department of the Government of Maharashtra decided to celebrate "Bird Week" from 5th to 12th November 2020 on the occasion of Shri Maruti Chitampalli's and (Late) Shri. Salim Ali's birth dates. Accordingly, "Bird Week" was celebrated at Veermata Jijabai Bhosale Udyan and Zoo from 5th to 12th November 2020. Due to the Covid 19 pandemic and lockdown, we celebrated Bird Week online through the Facebook page of the Greater Mumbai Municipal Corporation (MyBMC).

During the above period, various online programs were organized for the general public as well as school / college students, teachers / professors and students of Mumbai Veterinary College.

On 05/11/2020 information and online enrichment activity of Humboldt Penguin at Veermata Jijabai Bhosale Park and Zoo was shown on Facebook Live. Head Veterinarian of Humboldt Penguin Section, Dr. Madhumita Kale gave information about Humboldt penguins and how they are taken care of at the zoo.

<https://www.facebook.com/100821534829698/videos/1232024990499495>

On 07/11/2020, an online lecture on "Conservation of Vultures in India" was given by Dr. Percy Avari, professor of Mumbai Veterinary College wherein he spoke about the different types of vultures in India and their conservation measures.

<https://www.facebook.com/100821534829698/videos/371986147447901>

On 09/11/2020, an online lecture on "Joy of Bird Watching" was given by Mr. Prathamesh Desai, President of Thane and Raigad District Bird Association wherein he gave detailed information on how to observe birds, what precautions should be taken while observing birds, where birds can be observed in Mumbai and surrounding areas.

<https://www.facebook.com/100821534829698/videos/760199428174701>

On 10/11/2020, Ms. Ritu Sharma, helpline and digital administrator of RAWW organization gave an online talk on the topic "How to help a bird in distress" where she gave

detailed information about dos and don'ts to follow when you see a bird in danger along with the contact of organizations which help in such cases.

<https://www.facebook.com/100821534829698/videos/3461508440606041>

On 11/11/2020, Ms. Tuhina Katti, Scientist B, BNHS, Mumbai gave an online lecture on “Bird Migration Studies” where she explained the importance of bird migration studies and its use to study breeding behaviour in birds.

<https://www.facebook.com/100821534829698/videos/673130453401191>

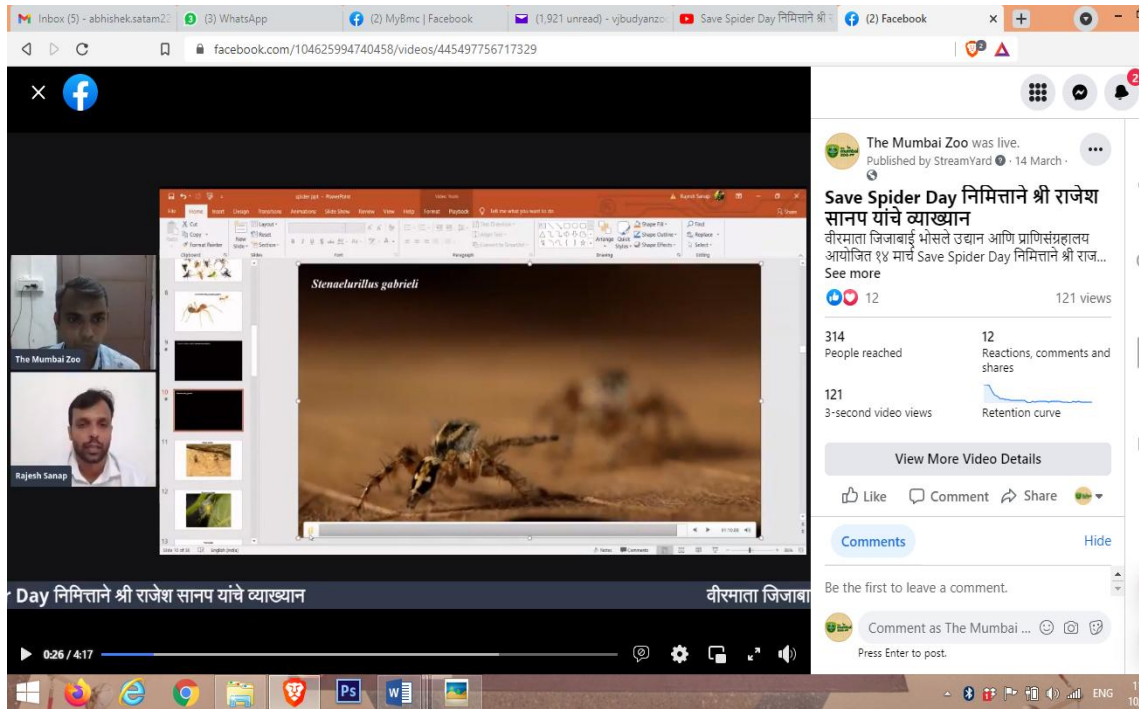
### **International Hippopotamus Day (15<sup>th</sup> February 2021)**

On 15/02/2021 International Hippopotamus Day, zoo published small enrichment activity video on Facebook for the viewers. Information about Hippopotamus, their ecology, management of Tigers in zoos etc. were given by Biologist Mr. Abhishek Satam and Veterinary officer Dr. Dipika Valsarajan.

### **Save Spider Day (14<sup>th</sup> March 2021)**

An online talk on ‘World of Spider’ by given by Mr. Rajesh Sanap ( Independent Researcher) who is working on the taxonomy and diversity of Indian spiders. He presented his observations and works on the less known facts about spiders.

<https://www.youtube.com/watch?v=C8BzVD6-Yiw&t=1s>



## Animal welfare Fortnightly Programmes

### Online talk on History, Development and Management of VJBU and Zoo (18<sup>th</sup> October 2020)

The Zoo organized an online talk on the journey of the Mumbai Zoo- '158 years of Veermata Jijabai Bhosale udyan and Zoo' in collaboration with Shivashourya Trekkers. In this talk Director Zoo Dr. Sanjaykumar Tripathi, and Biologist Mr. Abhishek Satam explained the history of the zoo, concept of modern Zoo and role of zoo in conservation and education.

<https://www.facebook.com/ShivashouryaTrekkers/videos/1754507271392958>

facebook.com/ShivashouryaTrekkers/videos/1754507271392958

Powered by StreamYard

the mumbai zoo

स्वप्नात पाहिली राणीची बाग  
वीरमाता जिजाबाई भोसले उद्यान  
वारसा १५८ वर्षांचा

स्वप्नात पाहिली राणीची बाग - वीरमाता जिजाबाई भोसले उद्यान, वारसा १५८ वर्षांचा, मार्गदर्शक : डॉ. संजयकुमार त्रिपाठी सर, संचालक

13:06 / 2:04:51

Shivashourya Trekkers शिवशौर्य ट्रेकर्स was live.  
19 October 2020

स्वप्नात पाहिली राणीची बाग - वीरमाता जिजाबाई भोसले उद्यान, वारसा १५८ वर्षांचा  
तुम्हाला ५३ एकरात जपलेली २८० पेक्षा जास्त प्रजातीची, ३२०० पेक्षा जास्त वृक्षांची, ८५० पेक्षा जास्त ...  
See more

83 77 comments 2.3K views

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Most relevant

Sharer Shivashourya Trekkers शिवशौर्य ट्रेकर्स - 10:29 सुंदर सर Like Reply - See translation - 42 w

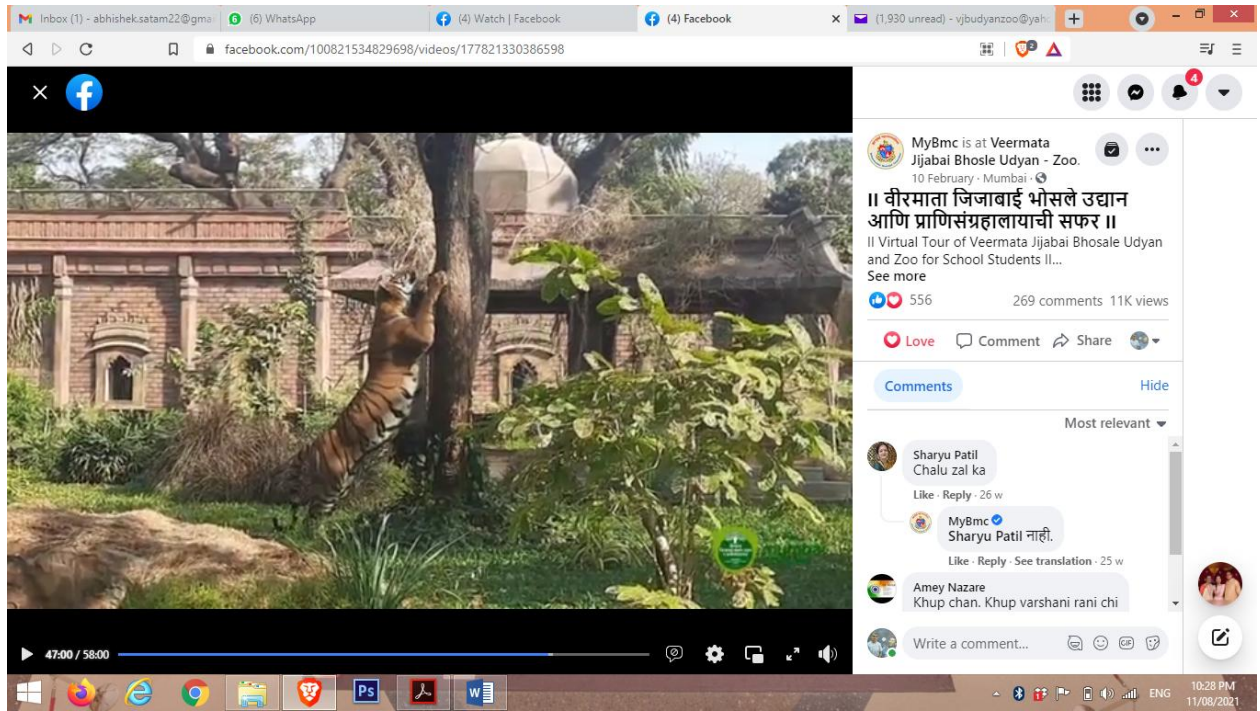
Sharer Shivashourya Trekkers शिवशौर्य ट्रेकर्स - 44:33 आम्ही सर्व प्रश्नांची नोंद घेत आहोत.

Write a comment...

### Virtual tour for Saraswati School Thane

10<sup>th</sup> February 2020, a virtual tour of the zoo was organized for the primary section students of Saraswati Education Society School and Junior College, Thane. Our Biologist Abhishek Satam and Veterinary officer Dr. Dipika Valsarajan also gave basic information and fun facts about the zoo animals during the virtual tour.

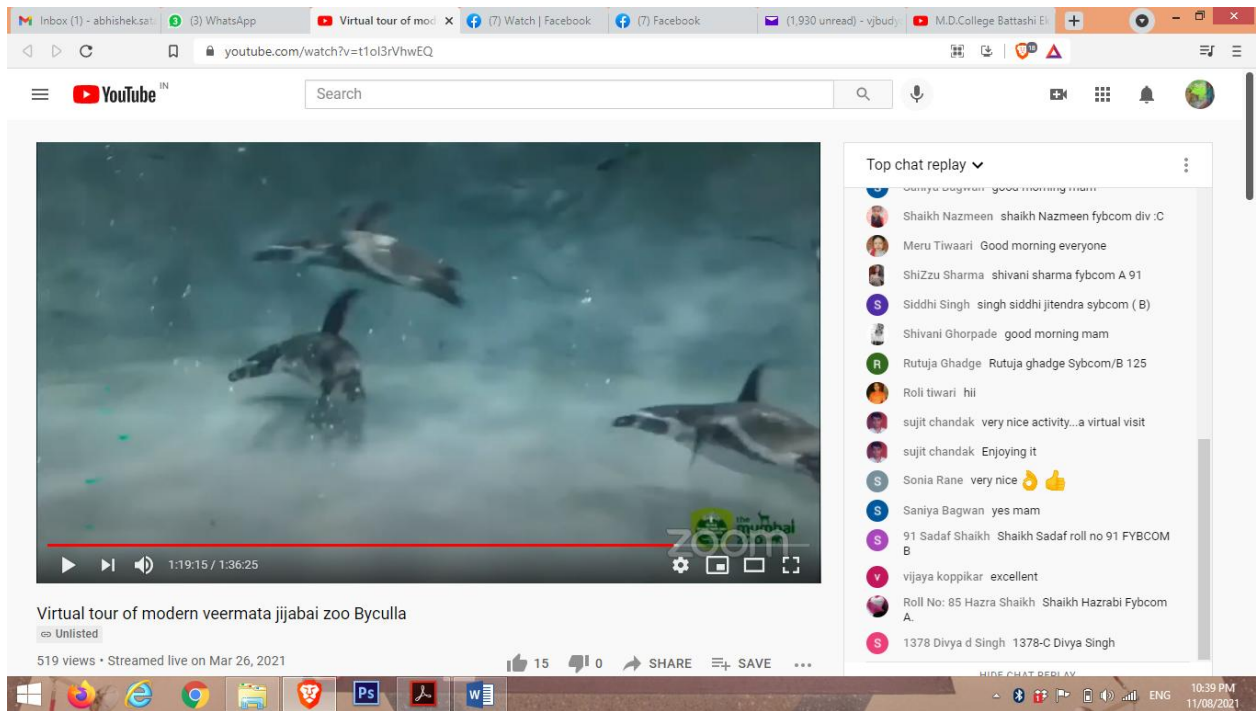
<https://www.facebook.com/100821534829698/videos/177821330386598>



### **Environment Awareness Week (25<sup>th</sup> March to 31<sup>st</sup> March 2021)**

An Online virtual tour was organized for students of Maharshi Dayanad College of Arts, Science and Commerce (Affiliated to Mumbai University), Shri M. D. Shah Mahila College of Arts and Commerce, and MMP Shah Women's College of Arts and Commerce (Affiliated to S.N.D.T. Women's University) on 27<sup>th</sup> March 2021. Our Biologist Abhishek Satam explained about the modernization of the zoo, zoo animals and also the rich plant diversity of the zoo.

<https://www.youtube.com/watch?v=t1ol3rVhweQ>



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

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

The Death Anniversary of Veermata Jijabai Bhosale, as per date was observed on Wednesday, the 17<sup>th</sup> June 2020. Hon. Mayor of Mumbai, Shrimati. Kishori Pednekar, Shri. Ramakant Rahate, Local Corporator and 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.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 345<sup>th</sup> Death Anniversary of Veermata Jijabai Bhosale, as per the Solar Calender was observed on Saturday, the 14<sup>th</sup> June 2020.

Dr. Devanand Sirsat, Curator-Zoo and Shri. Abhishek Satam, Biologist-Zoo paid homage to Jijamata by offering garlands to the statue of Veermata Jijabai Bhosale and Bal Shivaji at V.J.B.Udyan & Zoo. Other zoo staff remained present at the occasion.

### **Celebration of Birth Anniversary of Veermata Jijabai Bhosale at V.J.B. Udyan & Zoo (28<sup>th</sup> January 2021 - as per the Solar Calender)**

The Birth Anniversary of Veermata Jijabai Bhosale was celebrated by offering garlands to

the statues of Veermata Jijabai Bhosale & Balshivaji at the hands of Shri. Sudhir Naik, Dy. Commissioner (General Administration) on 10<sup>th</sup> January 2020 at Veermata Jijabai Bhosale Udyan-Zoo. Other Zoo officials remained present to grace the occasion.

**Celebration of 423<sup>rd</sup> Birth Anniversary of Veermata Jijabai Bhosale at V.J.B. Udyan & Zoo**  
**(as per date) 12 January 2020**

Hon. Mayor of Mumbai, Shrimati. Kishori Pednekar, Shri. Ramakant Rahate, Local Corporator, Dr. Sanjay Tripathi, Director (Zoo) and other zoo officials paid homage to Jijamata by offering garlands to the statue of Veermata Jijabai Bhosale and Bal Shivaji at V.J.B.Udyan & Zoo.

**‘Bharat ka Amrut Mahotsav’**

To commemorate 75 years of Indian Independence and as a part of ‘Bharat ka Amrut Mahotsav’, the Central Zoo Authority (CZA) organised conservation awareness activities highlighting in-situ and ex-situ conservation stories of Indian flora and fauna. A massive outreach campaign titled 'Conservation to coexistence- The People Connect' was chalked out by CZA which aims to generate conservation awareness for identified wild animal species through continued public engagement across 75 weeks starting from 12th March 2021 and concluding on 15th August 2022.(75weeks-75species-75zoos).

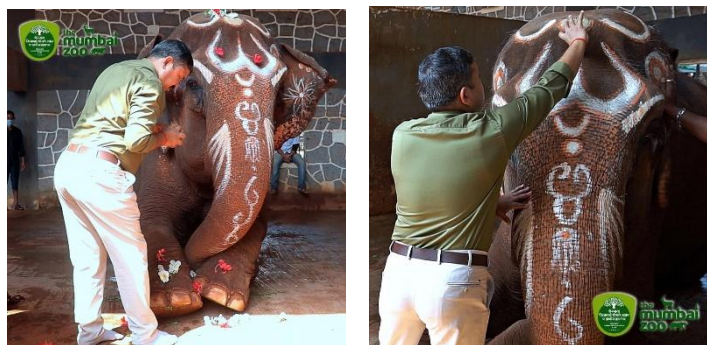
The Mumbai Zoo (Veermata Jijabai Bhosale Udyan and Zoo) had been chosen to flag off this massive conservation awareness program on 15th March 2021 which would continue for a week highlighting 'Asiatic Elephant' as the species in focus.

The Mumbai Zoo had planned a week long awareness program and activities for the same.

12/03/2021 : Subha Aarambha (Gajaraj Pujan)- The week long awareness programme started with Gajaraj Pujan. The zoo staff showed gratitude and offered favourite fruits to the zoo’s oldest resident Asian Elephant, Anarkali.

Links: <https://www.facebook.com/104625994740458/videos/127837512605740>

<https://www.youtube.com/watch?v=Je8JKWfSevY>



12.03.2021: Enrichment Activities of Asian elephant – Our Asian Elephant Anarkali was provided with behavioural and feed enrichment. Cardboard boxes with her favourite fruits wrapped in layers of hay were hung from trees and also hidden inside mud mounds. Trails of honey were smeared on trees and along the path leading to the boxes. The visitors enjoyed seeing the Anarkali searching for the treats with her curious nature.

Links: <https://www.facebook.com/104625994740458/videos/487125852505839>



14.03.2021: Origami workshop – Making your own Elephant

An Origami stall was set up in front of the Elephant Enclosure and visitors especially young kids were encouraged to make simple Origami Elephants. Kids enjoyed making the Origami Elephants and asking questions to the zoo volunteers about elephant behaviour and its importance.

Links: <https://www.facebook.com/104625994740458/videos/476740900025240>



On 14.03.2021, the Zoo also arranged documentaries on elephants in the zoo's 3D auditorium for the visitors.



15.03.2021: Online Activities for the people- The zoo announced a number of competitions for the people through the social media platforms. Participants were made to upload their works via Google forms and the winners were announced on the last day of the week. The list of the competitions are given below

Clay Modelling

Essay Writing

Logo Designing

Photography competition

T-shirt Painting

Paper quilling

16.03.2021: An Expert talk by Wildlife Scientist Dr Prachi Mehta was conducted with main emphasis on how human beings can navigate their journey for the betterment of the elephant species and learn to coexist.

Link: <https://www.youtube.com/watch?v=pgPgtgFMiP0>

On 16.03.2021 an Online Quiz Competition was also conducted. Winners were announced on the last day of the event.

17.03.2021: Live Painting competition was organized for Art Teachers of the Mumbai Municipality Schools. The paintings were later displayed in the zoo.

18.03.2021: Nature Trail for Underprivileged students – A nature trail explaining about different wild animals and trees in the zoo was conducted for the underprivileged students of an NGO ‘Mangesh Bhagat Patishthan’.



Expert talk by Dr Bivash Pandav, Director of BNHS was conducted wherein he spoke in detail about the Asian elephant behaviour, causes of human-elephant conflict etc. and Dr Sanjay Tripathi, Director of VJB Udyan and Zoo gave a talk on ‘Know all about your zoo’

Link: <https://youtu.be/Us1xVX5ilUo>

On 19.03.2021, A star studded event was conducted felicitating children with special needs from Shreerang Charitable Trust who painted a 4 D model of an elephant (Rainbow Elephant) using scented colours.

Link: <https://www.facebook.com/104625994740458/videos/492792841911374>

On 20.03.2021 Expert talk by Mr. Anand Shinde (Founder- President Trunk Call - The Wildlife Foundation on Dialogue with elephant species was conducted online.

Link: <https://www.facebook.com/104625994740458/videos/115717680481031>

<https://www.youtube.com/watch?v=RZwa3Jx7If4>

21.03.2021: 5G elephant exhibition (Great Green Grass Gentle Giant)- Since 21.03.2021 was also celebrated as International Forest Day, the zoo highlighted the importance of forests and connectivity through a grass model of elephant made from bamboo plants. The idea was conceptualised and created by Mr. Sumit Patil (Founder- Shreerang Charitable Trust)

Link: <https://www.facebook.com/104625994740458/videos/733267090665394>

<https://www.facebook.com/104625994740458/videos/195356205355574>



## Volunteers Training Programme

### 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 online because of pandemic situation.

### Online talk on History, Development and Management of VJBU and Zoo (18<sup>th</sup> October 2020)

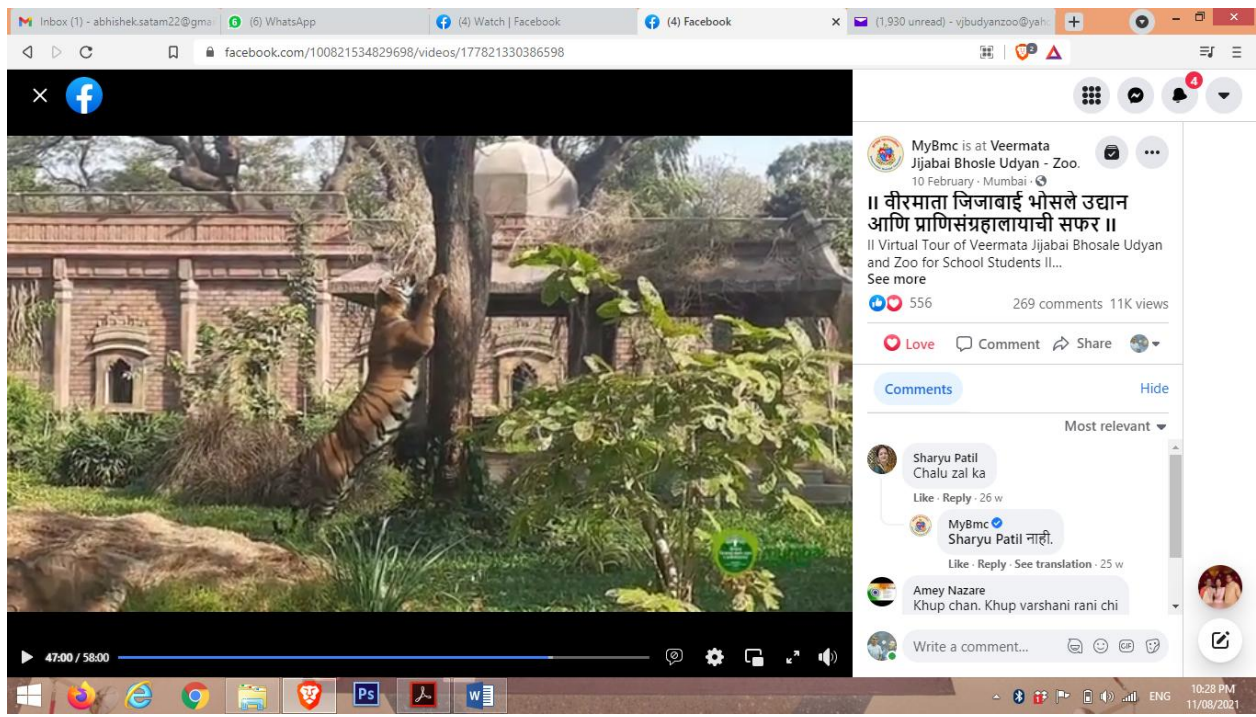
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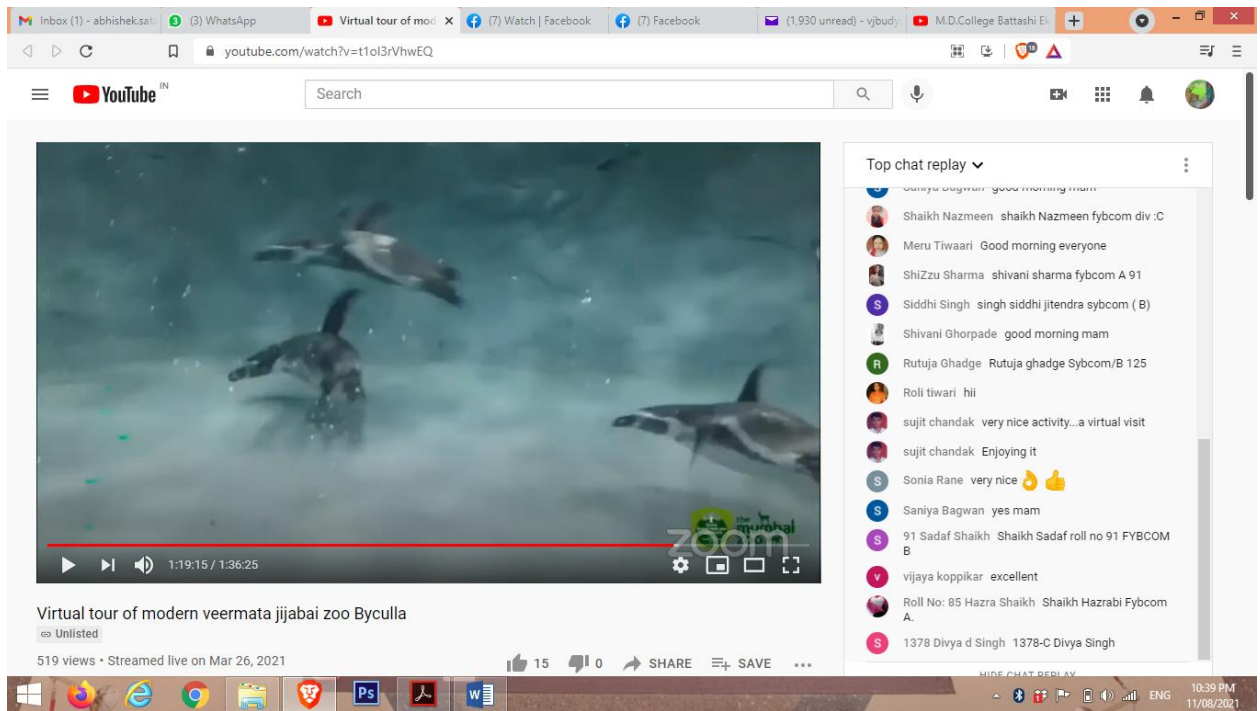
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<https://www.youtube.com/watch?v=t1ol3rVhweQ>



## 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 01.01.2021. 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 ABSCESSSES 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**



Veermata Jijabai Bhosale Udyan – Zoo, Mumbai																						
Species (Sch III & IV)																						
Annual Inventory from 01-04-2019 to 31-03-2020																						
Sr. no	Endangered Species	Scientific Name	Stock as on 01-04-19				Birth			Acquired			Disposal			Death			Stock as on 30-03-20			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Crane Demoiselle	<i>Anthropoides virgo</i>	1	0	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0	0	1
2	Crane Sarus	<i>Grus antigone</i>	1	0	0	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0	0	1
3	Heron Night	<i>Nycticorax nycticorax</i>	0	0	36	36	-	-	6	-	-	-	-	-	-	-	-	-	0	0	42	42
4	Ibis White	<i>Threskiornis melanocephala</i>	0	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	1
5	Parakeet Alexandrine	<i>Psittacula eupatria</i>	11	4	0	15	-	-	-	-	-	2	-	-	-	1	-	9	3	0	12	
6	Parakeet Red Breasted	<i>Psittacula alexandri</i>	2	0	0	2	-	-	-	-	-	-	-	-	1	-	-	1	0	0	1	
7	Pelican Rosy / White	<i>Pelecanus onocrotalus</i>	1	1	0	2	-	-	-	-	-	-	-	-	-	-	-	1	1	0	2	
8	Stork Adjutant	<i>Leptoptilos dubius</i>	1	1	2	4	-	-	-	-	-	-	-	-	-	-	-	1	1	2	4	
9	Stork Painted	<i>Mycteria leucocephala</i>	4	8	14	26	-	-	-	-	-	6	6	-	-	-	-	0	2	12	14	
	<b>Total of D</b>		<b>21</b>	<b>15</b>	<b>52</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>8</b>	<b>56</b>	<b>78</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 muntjak</i>	4	6	11	21	-	-	5	-	-	-	-	-	4	3	-	0	3	16	19	
2	Sambar Deer	<i>Cervus unicolor</i>	2	10	0	12	1	-	-	-	-	-	-	-	2	4	-	1	6	0	7	
3	Spotted Deer	<i>Axis axis</i>	5	21	6	32	10	1	-	-	-	2	2	-	7	7	-	6	13	6	25	
4	Nilgai / Blue Bull	<i>Boselaphus tragocamelus</i>	1	0	0	1	-	-	-	-	-	-	-	-	1	-	-	0	0	0	0	
5	Wild Boar	<i>Sus scrofa</i>	0	1	0	1	-	-	-	-	-	-	-	-	-	-	-	0	1	0	1	
	<b>Total of E</b>		<b>12</b>	<b>38</b>	<b>17</b>	<b>67</b>	<b>11</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>7</b>	<b>23</b>	<b>22</b>	<b>52</b>
	<b>Total of D + E</b>		<b>33</b>	<b>53</b>	<b>69</b>	<b>155</b>	<b>11</b>	<b>1</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>0</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>21</b>	<b>31</b>	<b>78</b>	<b>130</b>

Veermata Jijabai Bhosale Udyan – Zoo, Mumbai																						
Other Species (Sch III & IV)																						
Annual Inventory from 01-04-2019 to 31-03-2020																						
Sr. no	Species ( III & IV)	Scientific Name	Stock as on 01-04-19				Birth			Acquired			Disposal			Death			Stock as on 30-03-20			
			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>	9	22	4	35	-	-	-	-	-	-	-	-	-	-	-	-	9	22	4	35
2	Cockatiel grey	<i>Nymphicus hollandicus</i>	2	3	11	16	-	-	1	-	-	-	-	-	-	-	-	-	2	3	12	17
3	Cockatiel White	<i>Nymphicus hollandicus</i>	2	2	5	9	-	-	-	-	-	-	-	-	-	1	-	-	1	2	5	8
4	Cockatoo White	<i>Cacatua alba</i>	1	0	1	2	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1	2
5	Crane	<i>Grus japonicus</i>	3	2	0	5	-	-	-	-	-	-	-	-	-	-	-	-	3	2	0	5

	Crowned Red																						
6	Emu	<i>Dromaius novaehollandiae</i>	0	2	5	7										-	2	0	2	3	5		
7	Macaw Military	<i>Ara militaris</i>	7	1	0	8	-	-	-	-	-				-	2			5	1	0	6	
8	Parrot African Grey	<i>Psittacus erithacus</i>	3	8	0	11	-	-	-	-	-	2	2		1	1			0	5	0	5	
9	Humboldt Penguin	<i>Spheniscus humboldti</i>	3	4	0	7		-	-	-	-							-	3	4	0	7	
10	Pheasant Golden	<i>Chrysolophus pictus</i>	1	0	0	1	-	-	-	-	-							-	1	0	0	1	
	<b>Total</b>		<b>31</b>	<b>44</b>	<b>26</b>	<b>101</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>25</b>	<b>41</b>	<b>25</b>	<b>91</b>	
			( 2 unknown Emu identified as males on postmortem)																				
	<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	Hippopotamus	<i>Hippopotamus amphibius</i>	2	2	0	4				-	-	-	-	-	-	-	-			2	2	0	4
<b>Mammals – 13 species, 91, Birds – 21 species, 172, Reptiles – 7 species, 34</b>																							

Acquisition report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan & Zoo from 01-04-2019 to 30-03-2020					
Sr. No.	Name of Species	Scientific name	Date of Acquisition	No. & Sex	Remarks
1	Indian Flapshell Turtle	<i>Lissemys punctata</i>	01-04-2019	9 U	Found in crocodile Pond while dewatering
2	Leopard	<i>Panthera pardus</i>	28-04-2019	1 M + 1F	Exchange basis from Pilikula Zoo, Managlore
3	Golden Jackal	<i>Canis lupus</i>	28-04-2019	1 M + 1F	Exchange basis from Pilikula Zoo, Managlore
4	Indian Peafowl	<i>Pavo cristatus</i>	28-04-2019	1 M + 1F	Exchange basis from Pilikula Zoo, Managlore
5	Sloth Bear	<i>Melarsus ursinus</i>	18-05-2019	1F	Exchange basis from Surat Zoo, Gujarat
6	Golden Jackal	<i>Canis lupus</i>	18-05-2019	1 M + 1F	Exchange basis from Surat Zoo, Gujarat
7	Striped Hyena	<i>Hyaena hyaena</i>	02-01-20	1M1F	Donation from Mysore Zoo
8	Royal Brngal Tiger	<i>Panthera tigris tigris</i>	12-02-20	1M + 1F	Received from Aurangabad Zoo for animal exchange program

Disposition report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan & Zoo from 01-04-2019 to 30-03-2020					
Sr. No.	Name of Species	Scientific name	Date of Disposition	No. & Sex	Remarks
1	Stork Painted	<i>Mycteria leucocephala</i>	22-04-2019	2 M + 2F	Shifted to Pilikula Zoo, Mangalore
2	Parrot African Grey	<i>Psittacus erithacus</i>	22-04-2019	1M + 1F	Shifted to Pilikula Zoo, Mangalore
3	Parakeet Alexandrine	<i>Psittacula eupatria</i>	22-04-2019	2M	Shifted to Pilikula Zoo, Mangalore
4	Stork Painted	<i>Mycteria leucocephala</i>	17-5-2019	2 M + 2F	Shifted to Surat Zoo, Gujarat
5	Parrot African Grey	<i>Psittacus erithacus</i>		1M + 1F	Shifted to Surat Zoo, Gujarat
6	Spotted Deer	<i>Axis axis</i>	10-02-20	2M + 2F	Sent to Aurangabad Zoo for animal exchange program
7	Painted Stork	<i>Mycteria leucocephala</i>	10-02-20	2M + 2F	Sent to Aurangabad Zoo for animal exchange program

Annual Birth report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan Zoo from 01-04-2019 to 30-03-2020				
Sr. No.	Name of Species	Scientific name	Date of Birth	No. & Sex
1	Spotted Deer	<i>Axis axis</i>	14-04-2019	1 M
2	Macaque Rhesus	<i>Macaca mulatta</i>	26-04-2019	1 M
3	Spotted Deer	<i>Axis axis</i>	30-04-2019	1 U
4	Macaque Rhesus	<i>Macaca mulatta</i>	01-05-2019	1 M
5	Barking Deer	<i>Muntiacus Muntjack</i>	11-05-2019	1 U
6	Spotted Deer	<i>Axis axis</i>	22-05-2019	2M
7	Spotted Deer	<i>Axis axis</i>	07-06-2019	1 U
8	Macaque Rhesus	<i>Macaca mulatta</i>	22-06-2019	1 U
9	Cockatiel grey	<i>Nymphicus hollandicus</i>	28-06-2019	1 U
10	Sambar Deer	<i>Cervus unicolor</i>	22-07-2019	1 U
11	Heron Night	<i>Nycticorax nycticorax</i>	30-08-2019	10 U
12	Heron Night	<i>Nycticorax nycticorax</i>	31-08-2019	20 U
13	Heron Night	<i>Nycticorax nycticorax</i>	10-09-2019	1 U
14	Heron Night	<i>Nycticorax nycticorax</i>	12-09-2019	2U
15	Spotted Deer	<i>Axis axis</i>	25-09-2019	1 U
16	Spotted Deer	<i>Axis axis</i>	04-10-2019	1 U
17	Barking Deer	<i>Muntiacus Muntjack</i>	04-10-2019	1 U
18	Spotted Deer	<i>Axis axis</i>	31-10-2019	1 U
19	Spotted Deer	<i>Axis axis</i>	20-11-2019	1 U
20	Spotted Deer	<i>Axis axis</i>	22-11-2019	1 U
21	Barking Deer	<i>Muntiacus muntjack</i>	18-12-2019	1 U
22	Barking Deer	<i>Muntiacus muntjack</i>	23-12-2019	1 U
23	Barking Deer	<i>Muntiacus muntjack</i>	01-01-2020	1 U
24	Spotted Deer	<i>Axis axis</i>	22-01-2020	1 U
25	Golden Jackal	<i>Canis lupus</i>	03-03-2020	1M
26	Rhesus Macaque	<i>Macaca mulata</i>	26-03-2020	1M

Egg report of Crocodile ( <i>Crocodylus palustris</i> )						
Sr. No.	Date of egg lay	No. of eggs	Date of incubation	Date of hatch	Date of egg disposed	Method of incubation
1	Crocodile	<i>Crocodylus palustris</i>	18-04-2019	29	20- Artificial incubation 6 – Natural incubation	3 eggs broken discarded
Egg report of Humboldt Penguin ( <i>Spheniscus humboldti</i> )						
Sr. No.	Date of egg lay	No. of eggs	Date of incubation	Date of hatch	Date of egg disposed	Method of incubation



## 27. Mortality of Animal

Death/Disposed report of Endangered and other Sp. of Mammals/ Birds/ Reptiles at V. J. B. Udyan Zoo from 01-04-2019 to 30-04-2019					
Sr. No.	Name of Species	Scientific name	Date of Death	No. & Sex	Cause of Death/Disposal
1	Black Buck	<i>Antelope cervicapra</i>	15-04-2019	1F	cardiac shock, old age
2	Parakeet Red Breasted	<i>Psittacula alexandri</i>	18-04-2019	1M	cardiac shock, old age
3	Barking Deer	<i>Muntiacus Muntjack</i>	29-04-2019	1F	Putrified
4	Barking Deer	<i>Muntiacus Muntjack</i>	06-05-2019	1F	cardiac shock, old age
5	Nilgai / Blue Bull	<i>Boselaphus tragocamelus</i>	13-5-2019	1M	Ascitis, multiple growth on liver, lung, spleen
6	Indian Flapshell Turtle	<i>Lissemys punctata</i>	21-05-2019	1U	Putrified
7	Spotted Deer	<i>Axis axis</i>	26-05-2019	1M	Cardiac shock
8	Parrot African Grey	<i>Psittacus erithacus</i>	30-05-2019	1F	Cardiac Shock , hepatitis
9	Barking Deer	<i>Muntiacus Muntjack</i>	04-06-2019	1M	h/o Head injury, septicemia
10	Spotted Deer	<i>Axis axis</i>	08-06-2019	1F	cardiac shock, pale liver
11	Indian Flapshell Turtle	<i>Lissemys punctata</i>	16-6-2019	2 M	cardiac shock, stomach empty
12	Indian Flapshell Turtle	<i>Lissemys punctata</i>	16-6-2019	1U	Putrified
13	Indian Flapshell Turtle	<i>Lissemys punctata</i>	17-06-2019	1F	Egg retention, septicemia
14	Spotted Deer	<i>Axis axis</i>	18-06-2019	1M	Respiratory failure
15	Indian Flapshell Turtle	<i>Lissemys punctata</i>	19-06-2019	2M	cardiac shock, stomach empty
16	Indian Flapshell Turtle	<i>Lissemys punctata</i>	21-06-2019	1F	cardiac shock, stomach empty
17	Indian Flapshell Turtle	<i>Lissemys punctata</i>	21-06-2019	1U	Putrified
18	Indian Flapshell Turtle	<i>Lissemys punctata</i>	22-06-2019	2M	cardiac shock, stomach empty
19	Indian Flapshell Turtle	<i>Lissemys punctata</i>	25-06-2019	1M	cardiac shock, leisons on kidney
20	Indian Flapshell Turtle	<i>Lissemys punctata</i>	27-06-2019	1M	cardiac shock, stomach empty, septicemia
21	Macaw Military	<i>Ara militaris</i>	01-07-2019	1U	Sent for Taxidermy
22	Indian Flapshell Turtle	<i>Lissemys punctata</i>	02-07-2019	1M	Cardiac shock
23	Indian Flapshell Turtle	<i>Lissemys punctata</i>	03-07-2019	1F	Egg Yolk Peritonitis
24	Barking Deer	<i>Muntiacus Muntjack</i>	05-07-2019	1F	Suspected T.T. , septicemia
25	Macaque Rhesus	<i>Macaca mulatta</i>	14-07-2019	1M	Cardiac shock, head injury
26	Indian Flapshell Turtle	<i>Lissemys punctata</i>	14-07-2019	1F	Putrified
27	Sambar Deer	<i>Cervus unicolor</i>	17-07-2019	1M	Congestive Heart Failure
28	Sambar Deer	<i>Cervus unicolor</i>	17-07-2019	1F	Respiratory Failure
29	Indian Flapshell Turtle	<i>Lissemys punctata</i>	17-07-2019	1M	Putrified carcass
30	Indian Flapshell Turtle	<i>Lissemys punctata</i>	17-07-2019	1M	Cardiac shock

31	Barking Deer	<i>Muntiacus Muntjack</i>	18-07-2019	1M	Cardiac shock
32	Spotted Deer	<i>Axis axis</i>	19-07-2019	1M	Haemorrhagic shock
33	Indian Flapshell Turtle	<i>Lissemys punctata</i>	21-07-2019	1F	Cardiac shock, hepatitis
34	Indian Flapshell Turtle	<i>Lissemys punctata</i>	22-07-2019	1M	Hepatic failure
35	Sambar Deer	<i>Cervus unicolor</i>	23-07-2019	1M	Cardiac shock
36	Indian Flapshell Turtle	<i>Lissemys punctata</i>	24-07-2019	1 F	Cardiac shock, hepatitis
37	Sambar Deer	<i>Cervus unicolor</i>	25-07-2019	1F	Old age, multi organ failure
38	Sambar Deer	<i>Cervus unicolor</i>	27-07-2019	1F	Congestive Heart Failure
39	Indian Flapshell Turtle	<i>Lissemys punctata</i>	28-07-2019	1F	Putrified
40	Indian Flapshell Turtle	<i>Lissemys punctata</i>	05-08-2019	1M	Putrified
41	Spotted Deer	<i>Axis axis</i>	11-08-2019	1M	Cardiac shock
42	Indian Flapshell Turtle	<i>Lissemys punctata</i>	11-08-2019	1F	Hepatic failure
43	Emu	<i>Dromaius novaehollandiae</i>	15-08-2019	1M	Cardiac shock, septicemia
44	Parakeet Alexandrine	<i>Parasitical eupatria</i>	21-08-2019	1F	Old age, multi organ failure
45	Indian Flapshell Turtle	<i>Lissemys punctata</i>	27-08-2019	1M	visceral gout
46	Cockatiel White	<i>Nymphicus hollandicus</i>	01-09-2019	1M	Nasal block, cardiac shock
47	Indian Flapshell Turtle	<i>Lissemys punctata</i>	05-09-2019	1M	Putrified
48	Spotted Deer	<i>Axis axis</i>	02-10-2019	1M	Cardiac shock
49	Spotted Deer	<i>Axis axis</i>	05-10-2019	1M	Abandoned by mother, Cardiac shock
50	Spotted Deer	<i>Axis axis</i>	20-10-2019	1F	Maggot wound, septicemia
51	Emu	<i>Dromaius novaehollandiae</i>	21-10-2019	1M	septicemia
52	Spotted Deer	<i>Axis axis</i>	29-10-2019	1F	Cardiac shock
53	Sambar Deer	<i>Cervus unicolor</i>	06-11-2019	1F	Cardiac shock
54	Spotted Deer	<i>Axis axis</i>	15-11-2019	1F	Cardiac shock, anemia
55	Spotted Deer	<i>Axis axis</i>	12-12-2019	1F	Tetanus , septicemia
56	Spotted Deer	<i>Axis axis</i>	01-01-2020	1M	Cardiac shock
57	Indian Flapshell Turtle	<i>Lissemys punctata</i>	13-01-2020	1M	Multi organ failure
58	Spotted Deer	<i>Axis axis</i>	16-01-2020	1F	Cardiac shock
59	Spotted Deer	<i>Axis axis</i>	20-01-2020	1F	Respiratory failure
60	Indian Flapshell Turtle	<i>Lissemys punctata</i>	24-01-2020	1U	Putrified
61	Indian Flapshell Turtle	<i>Lissemys punctata</i>	26-01-2020	1M	prolapse of penis, putrified
62	Macaw Military	<i>Ara militaris</i>	02-02-2020	1U	Taxidermy
63	Swamp Deer	<i>Rucervus duvaucelli</i>	14-02-2020	1F	Infight injury, shock
64	Barking Deer	<i>Muntiacus Muntjack</i>	16-02-2020	1M (fawn)	Cardiac shock
65	Barking Deer	<i>Muntiacus Muntjack</i>	25-02-2020	1F	Respiratory failure
66	African Grey Parrot	<i>Psittacus erithacus</i>	20-03-2020	1M	Shock
67	Indian Flapshell Turtle	<i>Lissemys punctata</i>	26-03-2020	1U	Putrefied

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

<b>Sr. No.</b>	<b>Norm No.</b>	<b>Details on the conditions stipulated by the Central Zoo Authority, New Delhi, MoEF</b>	<b>Status with regard Compliance of the conditions as submitted by the Officer-in-charge of the Zoo</b>
<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

