

# Zoological Garden Thiruvananthapuram

# Annual **R** 2017-18 Report



Department of Museums & Zoos  
Government of Kerala

# Zoological Garden, Thiruvananthapuram

## Annual Report 2017 - 2018

Sl. No.	Particulars	Page No.
1	Report of the Officer-in-charge	1
2	History of the Zoo	2
3	Vision	3
4	Mission	3
5	Objective	3
6	About us	4
7	Organizational Chart	6
8	Human Resources	7
9	Capacity Building of the zoo personnel	9
10	Zoo Advisory Committee	11
11	Health Advisory Committee	11
12	Statement of income and expenditure of the Zoo	12
13	Daily feed Schedule of animals	13
14	Vaccination Schedule of animals	20
15	De-worming Schedule of animals	22
16	Disinfection Schedule	23
17	Health Check-up of employees for zoonotic diseases	24
18	Development Works carried out in the zoo during the year	24
19	Education and Awareness programmes during the year	30
20	Important Events and happenings in the zoo	34
21	Seasonal special arrangements for upkeep of animals	36
22	Research Work carried out and publications	37
23	Conservation Breeding Programme of the Zoo	39
24	Animal acquisition / transfer / exchange during the year	40
25	Rescue and Rehabilitation of the wild animals carried out by the zoo	40
26	Annual Inventory of animals	41
27	Mortality of animals.	47
28	Status of the Compliance with conditions stipulated by the Central Zoo Authority	50
29	List of free living wild animals within the zoo premises	53





**S. ABU**  
**Director**



The Zoological Garden at Thiruvananthapuram has long and profound history in animal conservation. Ever since its establishment in 1859 as the second Zoo in India, the Thiruvananthapuram Zoo has seen a steady progress in the number and variety of its animal collection. Even in 1890, the Zoo had a 300 strong collection that included many exotic animals. The institution has been fortunate to receive continued and adequate attention and patronage even after the princely State gave way to a democratic State. To date, it remains as one of the main attraction to tourists who flock to the city and the State.

In 1998, the Government of India came out with National Zoo Policy that clearly marked a change in the focus of animal collection and exhibition. The idea of the Zoo as centers of recreation and entertainment was rejected in favour of a focus on conservation, education and research. Ever since the advent of the 21st Century, the Thiruvananthapuram Zoological Garden has been contemplating on the ways and means by which this venerable institution could be recast as a modern day center for Zoological Conservation, education and research to move to a vantage point that would help it to better serve the educational and social needs of the city, the State and the Country as a whole. The present modernisation carried out in the Zoo is in line with the Twenty Years Master Plan, approved by Central Authority.

During the year 2017 - 18, the zoo could witness a tangible change in infrastructure facility for the Zoo inmates as well as for the visitors. The collection plan also enriched the existing wild fauna. A good rapport could be established with various Zoo in the Country as well as the Central Zoo Authority, with resulted in mutual cooperation in various field. I take this opportunity to thank the State Government as well as Central Zoo Authority for extending all help and assistance for the Thiruvananthapuram Zoological Garden.

**S. Abu**



## 2. History of the Zoo

**T**he Thiruvananthapuram Zoo is the oldest zoo in India continuing to exist in its original location in the heart of the temple city Thiruvananthapuram. Swathi Thirunal Maharaja (1816 – 1846), illustrious King and Music composer who had ruled Travancore during 1830 – 1846 is said to be the visionary behind the establishment of the Thiruvananthapuram Museum and Zoo. He had a good collection of animals including elephants in his horse breeding centre. To the Trivandrum stables he incorporated a menagerie and kept tigers, panthers, cheetahs, deer, bears and a lioness. It was however left to his brother Uthram Thirunal Marthanda Varma and the then British Resident General Cullen which consequenced the establishment of the Museum and Zoo in Thiruvananthapuram. A committee was formed in 1855 with the Maharaja of Travancore as patron, General Cullen as President the Elaya Raja as Vice President Mr. Allen Brown as Secretary of the Committee. The Museum was thrown open to the public in September 1857. But the Museum by itself could not attract the people much, and therefore a Zoo and a park were started in 1859.

This Zoological Garden is unique in India for its breathtaking landscapes and luxuriant growth of vegetation. Royal look of lofty trees, towering bamboos, lush green landscapes give it a rare distinction of being one of the most beautiful zoos in South East Asia. Spread over 36 acres of land and located in the heart of the city it provides a respite for the people of Thiruvananthapuram as much it offers tourism and recreation for visitors reaching from outside Kerala and overseas.



### 3. Vision

To make Thiruvananthapuram Zoo the best Zoo in the country by 2025

### 4. Mission

Happy animals, Pleasing staff & Satisfied visitors

### 5. Objective

- A. Wildlife conservation with special emphasis to the species endemic and endangered in Western Ghats.
- B. Education and Nature Awareness.
- C. Wildlife Research.
- D. Eco – tourism.



## 6. About Us

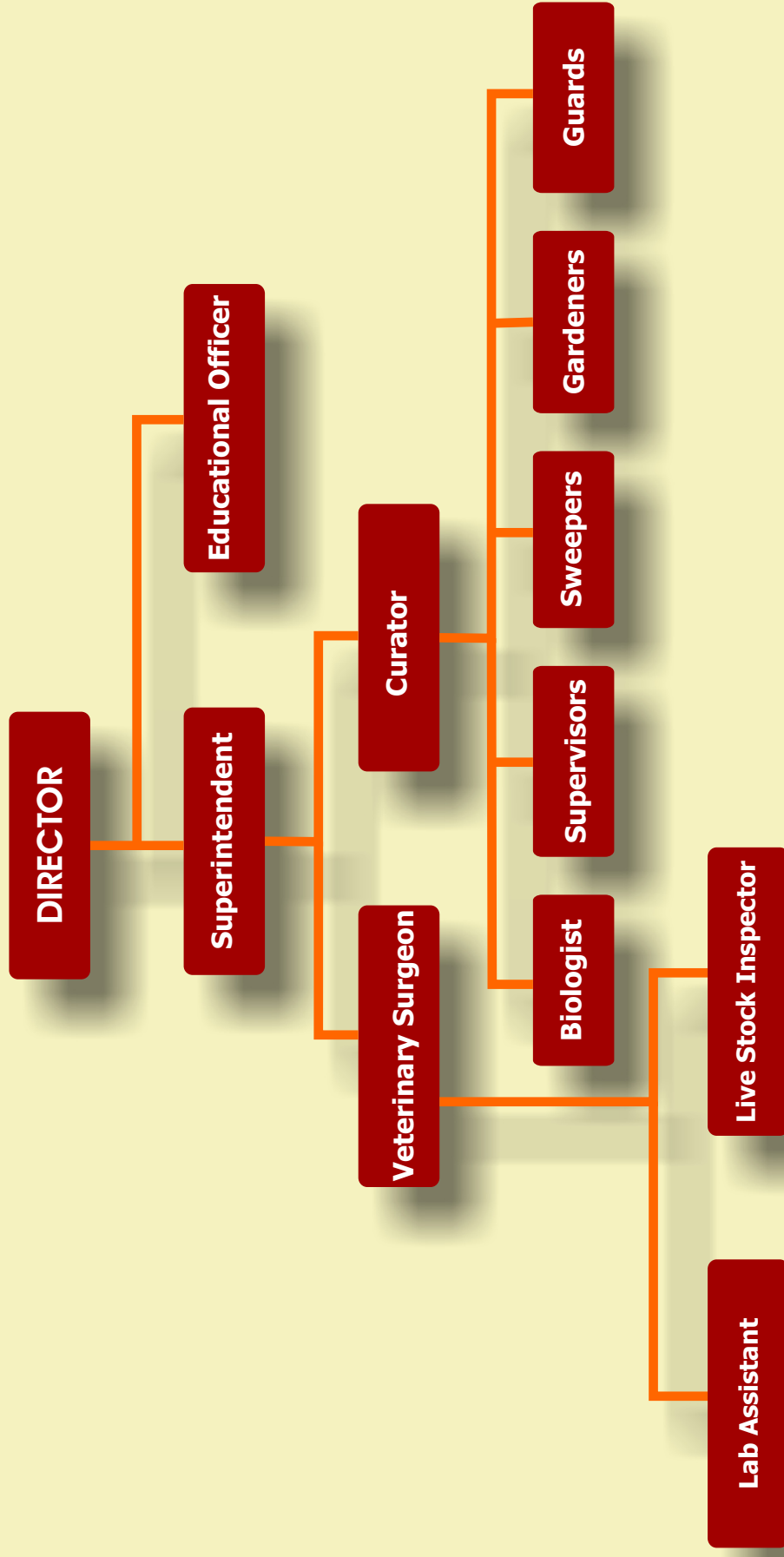
Sl. No.	Particulars	Information
<b>Basic information about the Zoo</b>		
1	Name of the Zoo	Zoological Garden, Thiruvananthapuram
2	Year of Establishment	1859
3	Address of the Zoo	Museums and Zoo Compound Vikas Bhavan (P.O.) Thiruvananthapuram - 695033 Kerala State
4	State	Kerala
5	Telephone Number	0471-2316275, 2318294
6	Fax Number	0471-2318294
7	E-mail address	museumzoo@gmail.com
8	Website	www.keralamuseumandzoo.org
9	Distance from Nearest	Airport : 9 Kms. Railway Station : 3 Kms. Central Bus Stand : 3 Kms
10	Recognition valid upto (Date)	23rd January 2020
11	Category of Zoo	Large
12	Area (in Hectares)	14.58 Hectares
13	Number of Visitors (2017 - 18)	Adult : 24,29,691 Children : 5,13,491 <b>Total Indian : 29,43,182</b> Total Foreigners : 6,534 <b>Total Visitors : 29,49,716</b>



14	Visitors' facility available in Zoo	Battery Operated Vehicles, E - Toilets, She Toilets, Morning Walks, Children's Park, 3-D Theatre, Art Museum, Aquarium, Art Gallery, Natural History Museum, Rain Shelters, Purified Drinking Water Points, Food Court, Restaurant, Cafeteria, Wheel Chairs, Parking Facility etc.
15	Weekly Closure Day of the Zoo	Monday
<b>Management Personnel of the zoo</b>		
16	Name with Designation of the Officer in-charge	T.V.Anilkumar, Superintendent, Zoological Garden
	Name of the Veterinary Officer	Dr. Jacob Alexander
	Name of the Curator	Mrs. Sangeetha Mohan
	Name of the Biologist	V. Sumam
	Name of the Education Officer	P.V. Vijayalekshmi
	Name of the Compounder/ Lab Assistant	S.M. Ragi
<b>Owner / Operator of the Zoo</b>		
17	Name of the Operator	Anil X IAS
18	Address of the Operator	Secretary, Cultural Affairs Department
19	Contact details/Phone number of Operator	0471-2322903
20	E-mail address of Operator	secy.ahd@kerala.gov.in

### 3. Vision

## 7. Organisation Chart





## 8. Human Resources

### Man power of the Zoo

Sl. No.	Designation	Number of Sanctioned posts	Names of the incumbent
1	Director	1	S. Abu
2	Superintendent	1	T.V. Anilkumar
3	Curator	1	Sangeetha Mohan
4	Veterinary Surgeon	1	Dr. Jacob Alexander
5	Education Officer	1	P. Vijayalekshmi
6	Livestock Inspector	1	Renjith Kumar T
7	Lab Assistant	1	S.M. Ragi
8	Supervisor	2	C. Radhakrishnan Nair
9			A. Vincent
10	Keeper	29	B. Saji
11			M. Vimalan
12			C. Thankappan
13			A. Radhakrishnan Nair
14			T. Chandran
15			R. Sudheesan
16			K. Babu
17			S. Jayan
18			S. Vasudevan Nair
19			B. Rajesh
20			M. Ramachandran
21			D. Manoharan
22			V.A. Sreekumar
23			R. Deepu
24			R. Ratheesh
25			N. Raveendran Nair
26			T.R. Radhakrishnan
27			N. Muraleedharan Nair
28			V.S, Manu
29			S.S. Rajesh Kumar
30			V. Anilkumar
31			S.L. Sreejith
32			A. Harshad
33			A.S. Saji
34	K. Subhash		

35	P.T. Keeper	4	D. Muraleedharan Nair
36			K.S. Sunil
37			N. Gopakumar
38	Scavengers	3	T. Sajikumar
39			B. Leela
40	Blacksmith	1	A.K. Rajan
41	Carpenter	1	Vacant
42	Mason	1	V.Sreekumar
43	Pump Operator	1	Harish Madhavan
44	Driver	1	B. Shameer
45	Van Cleaner	1	T.R. Arun
46	Senior Civil Police Officer	1	Vacant
47	Civil Police Officer	10	B.T. Prajeesh
48			B. Shibu
49			S. Sunilkumar
50			M.S. Mahesh Raj
51			K. Jayakumar
52			V.S. Ajidas
53			S. Gireesh Kumar
54			P. Pradeep
55	Sergeant	1	Abdul Kalam
56	Guards	14	Rahul V R Chandran
57			M Arun
58			V Suresh Roy
59			V M Sudheesan
60			K. Suresh
61			V.P. Prasobhan
62			K. Ranjith Kumar
63			O.M. Gireesh Kumar
64			C.S. Ajikumar
65			Unnikrishnan
66			B.Babu
67			Ragesh Cherotta
68			M.K. Vijeesh
69			Sujith Kumar

## 9. Capacity Building of Zoo personnel



Sl. No.	Name and designation of the Zoo personnel	Subject matter of training	Period of Training	Name of the institution where the Training attended
1	K. Gangadharan Director	Zoo Director's Conference	27.2.2018 to 2.3.2018	Dehradun Zoo
2	T.V. Anilkumar, Superintendent	Middle Level Officers Training	11.12.2017 to 14.12.2017	Sanjay Gandhi Biological Park, Patna
3	Sangeetha Mohan, Curator	Kerala Service Rules	5.3.2018 to 9.3.2018	Department of Museums and Zoos, Thiruvananthapuram
4	Dr. Jacob Alexander, Veterinary Surgeon	Capacity building of Indian Zoo Veterinarians on Animal Health Management in Captive Wildlife	19.9.2017	National Zoo, New Delhi
5	C. Radhakrishnan Nair, Supervisor	Familiarisation of the Zoos in India	05.11.2017 to 13.11.2017	Padmaja Naidu Zoological Park, Darjeeling., Guwahati Zoo and Nagaland Zoo.
6	A. Vincent, Supervisor			

Sl. No.	Name and designation of the Zoo personnel	Subject matter of training	Period of Training	Name of the institution where the Training attended
6	M. Vimalan, Keeper	Familiarisation of the Zoos in India	05.11.2017 to 13.11.2017	Padmaja Naidu Zoological Park, Darjeeling., Guwahati Zoo and Nagaland Zoo.
7	C. Thankappan, Keeper			
8	A. Radhakrishnan Nair, Keeper			
9	T. Chandran, Keeper			
10	R. Sudheesan, Keeper	Zoo Keepers Training on the Theme "CZA Vision 2030".	10.02.2018 to 15.02.2018	Arignar Anna Zoological Park, Chennai.
		Familiarisation of the Zoos in India		
11	K. Babu, Keeper	Familiarisation of the Zoos in India	05.11.2017 to 13.11.2017	Padmaja Naidu Zoological Park, Darjeeling., Guwahati Zoo and Nagaland Zoo.
12	S. Jayan, Keeper			
13	S. Vasudevan Nair, Keeper			
14	B. Rajesh, Keeper			
15	M. Ramachandran, Keeper			
16	D. Manoharan, Keeper			
17	V.A. Sreekumar, Keeper			
18	T.R. Radhakrishnan, Keeper	Zoo Keepers Training on the Theme "CZA Vision 2030".	10.02.2018 to 15.02.2018	Arignar Anna Zoological Park, Chennai.
		Familiarisation of the Zoos in India	05.11.2017 to 13.11.2017	Padmaja Naidu Zoological Park, Darjeeling., Guwahati Zoo and Nagaland Zoo.
19	N. Muraleedharan Nair, Keeper			



## 10. Zoo Advisory Committee

a.	Date of constitution	:	
b.	Members	:	Not constituted during the financial year (the same has been constituted during the year 2018 -19)
c.	Dates on which meeting held during the year	:	

## 11. Health Advisory Committee

a.	Date of constitution	:	28.2.2018
b.	Chairman	:	Principal Chief Conservator of Forests (WL) and Chief Wildlife Warden, Kerala
c.	Members	:	i. Chief Forest Veterinary Officer ii. Forest Veterinary Officer iii. Veterinary Officer of the concerned Zoo
d.	Dates on which meeting held during the year	:	



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

Sl. No.	Particulars	Income
1	Entry Ticket	2,73,20,245
2	Battery operated vehicle	18,33,000
3	Vehicle parking	60,96,450
4	Selling of manures	1,35,416
5	Miscellaneous	13,193

Sl. No.	Particulars	Expenditure
1	Dietary articles for Zoo inmates	32,401,717
2	Developmental works inside the Zoo	7,62,00,000



### 13. Daily feed schedule of animals

#### CARNIVORES

Sl. No.	Name of Livestock	Beef (Kg.)	Liver (Kg)	Milk	Carnivore Mineral Mixture (g)
1	Tiger	7	0.25		25g/Kg of feed
2	White Tiger	10	0.25		
3	Lion	7	0.25	500 ml	
4	Leopard	3	0.25		
5	Jaguar	3	0.25		
6	Jackal	0.7			
7	Jungle Cat	0.2			
8	Cinerous Vulture	0.75			
9	Himalayan Vulture	0.75			
10	Bengal Vulture	0.25			

#### BIRDS

Sl. No.	Name of Livestock	Fish (Kg)	Meat (g)
1	White Necked Stork	0.2	
2	Adjutant Stork	0.5	
3	Painted Stork	0.2	
4	Pelican - Rosy	0.5	
5	Pelican - Grey	0.5	
6	Spoonbill	0.15	
7	White Ibis	0.15	
8	Grey Heron	0.2	
9	Night Heron	0.15	
10	Pond Heron	0.15	
11	Purple Heron	0.15	
12	Darter	0.15	
13	Pariah Kite	0.04	50
14	Brahminy Kite	0.1	50
15	White bellied sea eagle	0.3	100
16	Barn Owl	0.25	50
17	Brown fish owl	0.1	250
18	Spot bellied eagle owl	0.13	250



Sl. No	Name of Livestock	Greens/ Coriander leaves (g)	Green chilly (g)	Green gram (g)	Poultry Feed (g)	Rice (cooked) (g)	Garlic (g)	Wheat (g)	Caged birds Mineral Mixture (g)
1	Pea fowl	30	20	20	30	100		30	55g/Kg of feed
2	Guinea fowl	30	20	20	30	100		30	
3	Ring Necked Pheasant	20	10	10	25	10	5	20	
4	Silver Pheasant	20	10	10	25	10	5	20	
5	Silver Golden Pheasant	20	10	10	25	10	5	20	
6	Golden Pheasant	20	10	10	25	10	5	20	
7	Khalij Pheasant	20	10	10	25	10	5	20	
8	Lady Amherst Pheasant	20	10	10	25	10	5	20	

## EXOTIC BIRDS

Sl No	Name of Livestock	Sugarcane (g)	Sunflower/maize/jowar/Groundnut (WH) and WOH/badam (mix) (g)	Banana (g)	Apple (g)	Guava (g)
1	Green winged macaw	55	80	55	35	35
2	Blue gold macaw	55	80	55	35	35
3	Scarlet macaw	55	80	55	35	35
4	Sulphur Cockatoo	55	80	55	35	35
5	Palm Cockatoo	55	80	55	35	35
6	Yellow Collared Macaw	55	80	55	35	35

SI No	Name of Livestock	Sugarcane (g)	Sunflower/maize/jowar/ Groundnut (WH) and WOH/badam (mix) (g)	Banana (g)	Apple (g)	Guava (g)	Papaya (g)
1	Eclectus parrot	50	20	40	15	15	65
2	Orange winged amazon	50	20	40	15	15	65
3	African grey Parrot	50	20	40	15	15	65
4	Sun Conure	50	20	40	15	15	65
5	Salmon crested cockatoo	50	20	40	15	15	65
6	Violet turaco		20		25	25	25
7	Hartlaubs Turaco		20		25	25	25
8	Blue crowned Pigeon		20		25	25	25

SI No	Name of Livestock	Banana (g)	Greens/ spinache (g)	Dog Feed (g)	Layer/ Ostrich feed (g)	Green gram (g)	Cucumber (g)	Bread (g)	Carrot (g)	Raw rice (g)	Caged birds Mineral Mixture (g)
1	Ostrich	500	15 Kg	400							55g/ Kg of feed
2	Emu	750	500		250	250	250	200		250	
3	Emu (juvenile)		500		150				400		
4	Farm Ostrich		5 Kg		250						

SI No	Name of Livestock	Greens/ Spinache (g)	Poultry Feed (g)	Boiled Eggs with shell	Heart of beef (cooked) 9G0	Cauliflower (g)	Cabbage (g)	Carrot (g)	Caged birds Mineral Mixture (g)
1	Rhea	1,000	270	1 No.	200	150	100	100	55g/ Kg of feed
2	Rhea (juvenile)	750	200	1 No.				500	

SI No.	Name of Livestock	Bengal Gram (g)	Guava (g)	Grapes (g)	Ground nut (WH) (g)	Groundnut WOH (g)	Mango/Apple (g)
1	Parakeets	25	20	30	25	20	50

SI No	Name of Livestock	Thina (g)	Rice cooked (g)	Cucumber (g)	Spinache (g)	Green gram (g)	Egg (No.)	Caged birds Mineral Mixture (g)
1	Black Swan	20	40	110	40	40	half	55 g / Kg of feed.
2	Crusted duck	20	40	110	40	40	half	
3	Lesser Whistling teal	20	40	110	40	40	half	

## HERBIVORES

SI No.	Name of Livestock	Guava (g)	Grapes (g)	Coconut (g)	Mango/Apple/Pineapple (g)	Bread (g)	Orange (g)	Papaya (g)	Water Melon (g)	Cowpea (g)
1	Giant Squirrel	60	65	20	40	40	40	40	50	51

SI No.	Name of Livestock	Banana (g)	Grapes (g)
1	Toddy Cat	250	150

SI No	Name of Livestock	Jaggery (g)	Bread (g)	Grapes (g)	Honey (g)	Cucumber (g)	Milk (g)	Orange (g)	Water Melon (g)	Ground Nut WH & WOH (g)	Egg boiled (no.)
1	Sloth bear	45	300	400	100	1,000	1	200	1,250	200 WH 35 WOH	1
2	Himalayan Black Bear	45	300	400	100	1,000	1	200	1,500	200 WH 35 WOH	2



Sl No	Name of Livestock	Cattle feed (Kg)	Cucumber (Kg)	Water Melon (Kg)	Banana (Kg)	Carrot (Kg)	Ragi (g)	Wheat bran (Kg)	Rice (Kg)	Grass (Kg)	Fodder (Kg)	Guinea grass (Kg)	Onion (g)	Cowpea (Kg)	Mineral Mixture	Salt	Asafoetida
1	Rhino	4	2	3	2	5	250	4	1	20	30	15	800	4.5	2%	1%	200 gms per month
2	Hippo							2.5	1	50	2						

Sl. No.	Name of Livestock	Pineapple (g)	Tapioca (g)	Water Melon (g)	Bread (g)	Plantain (g)	Grapes (g)
1	Porcupine	80	300	500	45	600	150

Sl. No	Name of Livestock	Grass (Kg)	Fodder (Kg.)	Cattle feed (Kg)	Bengal gram (g)	Green gram (g)	Cotton seed (g)	Herbivore Mineral Mixture	Salt
1	Spotted deer	1	4	1	60	60	60	2% of concentrate	1% of concentrate
2	Hog deer	1	3	1	60	60	60		
3	Sambar deer	1.5	7	1.5	80	80	80		
4	Barking deer	1	2	0.5	40	50	40		
5	Black buck	1	2	1	50	50	50		
6	Nilgai	7	8	3	0.5	0.5	0.5		
7	Cape buffalo	10	15	4	0.5	0.5	0.5		
8	Gaur	12.5	12.5	4	0.5	0.5	0.5		

Sl. No	Name of Livestock	Guinea grass (g)	Fodder (g)	Cattle feed (g)	Wheat bran (g)	Cucumber (g)	Banana (g)
1	Barasingha	1,000	500	250	1,000	700	500

Sl. No.	Name of Livestock	Guinea grass (g)	Karuka grass (g)	Plantain (g)	Wheat bran (g)	Carrot (g)	Equimine Mineral Mixture (g)	Salt (g)
1	Zebra	5	5	500	1	1	150 g daily for each inmates	2% of concentrate

Sl. No.	Name of Livestock	Fresh fish (Kg)
1	Otter	3

## PRIMATES

Sl. No	Name of Livestock	Banana / Plantain	Bread	Guava/ Tomato/ Orange	Coconut	Mango/ Apple/ Water Melon	Grapes	Groundnut WH	Pineapple /Papaya	Egg boiled
1	Lion Tailed Macaque	150 gm each	30 gm	50 gm	40 gm	120 gm	150 gm	40 gm	40 gm	1
2	Nilgiri Langur	151 gm each	30 gm	50 gm	40 gm	121 gm	151 gm	40 gm	40 gm	1
3	Common Langur	152 gm each	40 gm	50 gm	40 gm	122 gm	152 gm	40 gm	40 gm	1
4	Rhesus Macaque	153 gm each	40 gm	50 gm	40 gm	123 gm	153 gm	40 gm	40 gm	1

Sl. No.	Name of Livestock	Chicken live/Rabbit	Mice	Mice/Chicks	Egg/Mice	Mice	Rat snake	Lizard	Fish
1	Python	Weekly 1							
2	King cobra						Weekly 1		
3	Cobra			Weekly 1					
4	Anaconda	Once in 3 days							
5	Sandboa red				Weekly 1				
6	Common sandboa					Weekly 1			
7	Viper					Weekly 1			
8	Krait		Weekly 1						
9	Rat snake			Weekly 1					
10	Trinket Snake					Weekly 1			
11	Checked keelback Water Snake								Daily 20 g
12	Smooth Water Snake								
13	Ornate Flying Snake							Weekly 4	

Sl. No.	Name of Livestock	Fish	Meat
1	Gharial	1.100 Kg	
2	Spectacled Caiman	160 g	200 g weakly
3	Indian flapshell turtle	20 g	
4	Indian black turtle	20 g	
5	Red eared slider	20 g	

Sl. No.	Name of Livestock	Meat	Egg (Boiled)
1	Monitor Lizard/ Varanus	100 g	1
2	Crocodile Marsh (Mugger)	1.5 Kg weekly	200 g weakly

Sl. No.	Name of Livestock	Spinache (g)	Cabbage (g)	Banana (g)	Cactus (g)	Cucumber (g)	Carrot (g)	Vallipayar (g)	Apple (g)
1	Land Tortoise	80	80	80					
2	Star Tortoise	13	200 g weakly		13	13		26	
3	Iguana	30		30					30





## 14. Vaccination Schedule of animals

Sl. No.	Species	Disease vaccinated for	Name of the vaccine and dosage/quantity used	Periodicity	Remarks
1	Primates	Poliomyelitis	Modified Live Virus Vaccine	Annual	The periodicity and essentiality of vaccination of wild animals are only taken up based on epidemiological intelligence reports and prevalence of the diseases
2		Measles	Modified Live Virus Vaccine	Annual	
3		Mumps	Modified Live Virus Vaccine	Annual	
4		DPT/Tetanus	Killed/T oxoid	Annual	
5		Rabies		Annual	
6	Canidae	Canine Distemper	Modified Live Virus Vaccine	Annual	
7		Canine Adenovirus 2	Modified Live Virus Vaccine	Annual	
8		Canine Parvo virus	Killed	Annual	
9		Canine Parainfluenza	Modified Live Virus Vaccine	Annual	
10		Rabies	Killed	Annual	
11		Leptospira bacteria	Killed	Annual	
12	Felidae	Feline panleukopaenia	Killed	Annual	
13		Feline rhinotracheitis	Killed	Annual	
14		Feline Calciviruses	Killed	Annual	
15		Rabies	Killed	Annual	
16		Canine Distemper	Killed	Annual	

Sl. No.	Species	Disease vaccinated for	Name of the vaccine and dosage/quantity used	Periodicity	Remarks	
17	Ursidae	Canine Adenovirus 2	Killed	Annual	Vaccination for avians especially New Castle Disease, Duck Plague Virus, Avian Influenza is taken up only after screening.	
18		Leptospira bacterin	Killed	Annual		
19		Rabies	Killed	Annual		
20	Hyaenidae	Canine Distemper	Modified Live Virus Vaccine	Annual		
21		Feline panleukopaenia	Killed	Annual		
22	Artiodactyla	FMD	QAC Asia	Biannual		
23	Ruminantia	HS+BQ	Killed	Annual		
24	Equidae	Equine rhinopneumonitis	Killed	Every 4 months		
25	Perissodactyla	Leptospira bacteria	Killed	Annual		Chaemoprophyllactic agents are delivered in control diseases like trypanosomiasis based on index case/lab findings.
26	Proboscidea	Tetanus	Toxoid	Biannual		
27		FMD	QAC Asia 1	Biannual		
28		Anthrax	Killed	Annual		



## 15. De-worming schedule of animals

Sl. No.	Species	Drug used	Month	Remarks
1	Primates	Broad spectrum anthelmintis	December	There is lot of resistance developing to anthelmintes due to regular deworming schedule. No new molecules are being discovered in this area. The present concept is to deworm only if indicated by laboratory tests.
2	Canidae		April, October	
3	Felidae		April, October	
4	Ursidae		May	
5	Artiodactyla		November, May	
6	Perissodactyla		April	
7	Proboscidea		November	
8	All Birds		September	
9	All reptiles		October	

## 16. Disinfection Schedule

Sl. No	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection	Remarks
1	Primates	Animal House	PP solution - Scrub	daily	PP - Potassium Permanganate  QAC - Quarterly Ammonium Compounds
2		Foot bath	PP/QAC/Bleach	daily	
3	Canidae	Animal House	Bleach/QAC	Once in a week	
4		Foot bath	PP/QAC/Bleach	daily	
5	Felidae	Animal House	PP	daily	
6			Turmeric	Once in a month	
7			Bleach	Once in two months	
8		Enclosure	Fire - Diesel & Petrol	Once in five years	
9		Foot bath	PP/QAC/Bleach		
10	Ursidae	Animal House	PP	daily	
11		Foot bath	PP/QAC/Bleach	daily	
12		Enclosure	Salt/Bleach		
13	Hyaenidae	Animal House	PP	daily	
14			Bleach/QAC	Once in a month	
15		Enclosure	Salt/Bleach	Once in a month	
16	Artiodactyla	Animal House	QAC/ 3 % Sodium hypochlorate	Once in a week	
17		Foot bath	QAC/Bleach	daily	
18		Enclosure	Salt/Sodium hypochlorate	Rainy season/FMD	
19	Equidae/Perissodactyla	Animal House	QAC/Bleach	Once in a month	
20		Foot bath	Bleach/QAC	daily	
21		Enclosure	Bleach	Once in a year	
22	Proboscidea	Animal House	QAC/Bleach	Once in a month	
23		Foot bath	Bleach/QAC	daily	
24		Enclosure	Bleach	Once in a year	



## 17. Health Check up of employees for Zoonotic diseases

Health checkup was not conducted during the year 2017 - 18. This was done during the year 2018 - 19

## 18. Development works carried out in the Zoo during the year



Construction of aquatic aviary



Construction of Gaur enclosure





Construction of Otter enclosure



Construction of Aquarium





Construction of She Toilets



Construction of toilets for differently abled visitors





**Food court for visitors**



**Battery operated vehicle**





Resting place for visitors



Drinking water point





24 x 7 Surveillance





19. Educational and Awareness programmes during the year



Wildlife Week Celebrations







Wildlife Week Celebrations







World Environment Day







International Tiger Day





20. Important events and happenings



Birth of a Tiger Cub



Oriental Ibis hatchlings





Birth of Striped Hyaena



മൃഗശാലാ വകുപ്പ്  
 Zoological Garden

മൃഗശാലാ സന്ദർശനം  
 ഭിന്നശേഷി സൗഹൃദമാകുന്നു

Won 1st Prize in Onam Pageantry



## 21. Seasonal special arrangements for upkeep of animals



Provided water coolers, showers, airconditioners, pedestal fans, special diet for animals like Tigers, Himalayan Bears, Nilgais, Ostriches, Anacondas etc during last summer season.

## 22. Research work carried out and publications

1. Classes on environment related subjects were arranged during Wildlife Week Celebrations.
2. A Class on Management in Wild animals was taken at the 9th Kerala Veterinary Science Congress 2017 at Cochin.
3. Classes conducted for Inservice Veterinarian of Animal Husbandry Department in Wildlife health, management and Conservation by Dr. Jacob Alexander.
4. Classes conducted for Animal Welfare clubs of Animal Husbandry Department .
5. Conducted Learning Programme at Zoo and at ARIPA on “Sensitisation Workshop on Managing Wild Animals in Distress”
6. A Class was arranged for Veterinarians at Zoo Hospital on “Advancement in Zoo Pathology” by Dr. Jacob Alexander.
7. Conducted One Day Workshop for Wildlife Veterinarians on Chemical Immobilization of Captive and Wild Animals.
8. Conducted Learning Classes for the lady Staff members of Forest and Wildlife Department at the Zoo Hospital.
9. Invited Prof. John R Foster and conducted classes in Veterinary Toxicology.
10. Various students from Govt. Law College Trivandrum, Law Academy Trivandrum and Madras Christian College have undergone internship Training.

### Publications

1. Preliminary Study presented in National Conference – OISCA 2016 on Natural Resources and Conservation
2. Haematological Observations in Twenty Captive Male Sambar Deer (*Rusa unicolor*) by Dr. Jacob Alexander, Joju Johns, George Chandy, Sooryadas, John Martin KD, Shynu M and Ajithkumar S
3. Red Blood Cell Morphometry and Sickling in Sambar Deer (*Rusa unicolor*).
4. Haematological Observations following Xylazine-Ketamine Anaesthesia in ten Captive Spotted Deer (*Axis axis*) stags by Joju Johns, George Chandy, Sooryadas, Shyam K, Venugopal, Ajithkumar S, Dinesh P T and Jacob Alexander.
5. Preliminary study on the Physico chemical parameters of the Pond in Thiruvananthapuram Zoo with special reference to Phytoplankton Diversity – Anila P Ajayan and Ajit Kumar K G (2014), Journal of Aquatic Biology and Fisheries Vol 2 (2) Pp: 36 – 40.
6. Microbial Quality of the Lake inside Thiruvananthapuram Zoological Garden, Kerala, India – Anila P Ajayan, Julie B and Ajit Kumar K G (2015). International Journal on Applied Biology and Pharmaceutical Technology Vol. 6 (3). Pp : 49 – 55



8. Micro Algal Diversity of the Lake inside the Government Zoological Garden, Thiruvananthapuram, Kerala, India. International Journal of Environmental Sciences Vol 6 (2). Pp 330 – 337. . Anila P Ajayan and Ajit Kumar K G (2016).
9. On the seasonal changes in the Surface Water Chemistry of Museum Lake, Thiruvananthapuram, Kerala, India. – Pollution Vol 2 (2) Pp: 100 – 103 – 11.4 – Anila P Ajayan and Ajit Kumar K G (2016).
10. New Geographical Distribution of Euglenaria clepsydroides (Euglenophyceae) from India. – Indian Journal of Tropical Biodiversity. Vol 24 (1) : 100 – 102. Anila P Ajayan and Ajit Kumar K G (2016).
11. A Report on the Asian Open Billed Stork (Anatomus Oscitans) around Museum Lake and its current status in Thiruvananthapuram, Kerala. – Journal of Aquatic Biology and Fisheries. Vol 4 (1 & 2) Pp : 156 – 162. Anila P Ajayan, Anoop R and Ajit Kumar K G (2016).
12. The influence of Environmental Parameters on Chlorophycean Abundance : A Study from the Museum Lake in Thiruvananthapuram , Kerala, India. – Phytos 47 (2). Pp: 117 – 128. . Anila P Ajayan and Ajit Kumar K G (2016).
13. Phytoplankton as Biomonitors : A study of Museum Lake in Government Botanical Garden and Museum, Thiruvananthapuram, Kerala, India. – Lakes and Reservoirs : Research and Management. 22. Pp: 403-415. . Anila P Ajayan and Ajit Kumar K G (2016).
14. Urban Gardens in Sustaining Butterfly population – a preliminary check list of riparian butterflies around the museum lake in Govt. Botanical Garden and Zoo, Thiruvananthapuram, Kerala. Indian Journal of Tropical Biodiversity. Vol 25(2). Pp: 194 – 198. Anila P Ajayan and Ajit Kumar K G (2016).
15. Water Quality Assessment of an Unexplored Tropical Fresh Water System In Thiruvananthapuram, India : A Multivariate Statistical Approach. – Hand book of Environmental Materials Management. C.M Hussain (ed). [https://doi.org/10.1007/978-3-319-58538-3\\_30-1](https://doi.org/10.1007/978-3-319-58538-3_30-1)





## 23. Conservation Breeding Programme of the Zoo

Thiruvananthapuram Zoological Garden is a participant Zoo along with Arignar Anna Zoological Park, Vandallor, Chennai and Chamarajedra Zoological Garden, Mysore for the Conservation Breeding of Lion Tailed Macaques



06.04.



## 24. Animal acquisition/transfer/exchange during the year

Animals arriving in the Zoo				
A	Species	Number (M:F)	From which Zoo	Date of arrival in the Zoo
	Striped Hyaena	1 : 1	Kanpur Zoo	28.8.2017
Animals leaving the Zoo				
B	Species	Number (M:F)	Going to which Zoo	Date of deposition from the Zoo
	Brown Rhea	2 : 2	Kanpur Zoo	21.8.2017
	White Rhea	2 : 2		

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

Sl. No	Date of Rescue	Species with number of animals rescued with their sex (M:F:U:T)	Received from	Date of submission of Report to the CMLWCZA	Action taken	
					Date and place of rehabilitation in their habitat	Reasons for housing in the Zoo, if not released in their habitat
1	12.6.2017	Leopard 1 : 0 : 0 : 1	Neyyar Wildlife Sanctuary	13.6.2017		Not fit for release



## 26. Annual Inventory of animals

Sl. No.	Species	Name	Opening stock			Birth			Acquisition			Disposal			Death			Closing stock							
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T			
<b>ENDANGERED SPECIES (SCHEDULE I AND II)</b>																									
1	Bird	Eagle White Bellied Sea	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
2	Bird	Peafowl	9	6	0	15	0	0	1	1	3	0	4	0	0	0	0	0	0	0	10	9	1	20	
3	Bird	Peafowl (White)	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	
4	Bird	Pheasant Kalij	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
5	Bird	Spoonbill White	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	
6	Bird	Vulture Black/ Cinerous	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
7	Bird	Vulture Himalayan Griffon	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
8	Bird	Vulture White Backed - Bengal	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9	Mammal	Bear Himalayan Black	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2
10	Mammal	Bear Sloth	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1
11	Mammal	Black Buck (Krishna Mrig)	7	24	0	31	7	3	1	11	0	0	0	0	0	4	1	0	0	10	26	1	0	37	
12	Mammal	Black Buck (Albino)	1	1	0	2	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5
13	Mammal	Cat Jungle	3	1	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	2	0	0	5
14	Mammal	Civet Common Palm - Cat Toddy	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3
15	Mammal	Civet - Small Indian	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
16	Mammal	Swamp Deer	4	10	0	14	4	2	3	9	0	0	0	0	0	0	0	0	0	0	8	12	3	0	23
17	Mammal	Gaur (Indian Bison)	6	2	0	8	1	1	0	2	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10
18	Mammal	Hyaaena striped	0	0	0	0	0	0	3	3	1	1	0	2	0	0	0	0	0	0	1	1	1	0	5



Sl. No.	Species	Name	Opening stock			Birth			Acquisition			Disposal			Death			Closing stock						
19	Mammal	Jackal	1	1	0	2	0	0	0	0	0	0	0	0	0	1	0	1	1	0	2			
20	Mammal	Langur Common	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	3		
21	Mammal	Langur Nilgiri	1	3	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3		
22	Mammal	Leopard (Panther)	2	4	0	6	0	0	0	1	0	0	0	0	0	0	0	0	3	3	4	0	7	
23	Mammal	Macaque Lion-Tailed	5	6	0	11	0	0	0	0	0	0	0	0	0	1	0	5	5	5	0	10		
24	Mammal	Macaque Rhesus	3	4	0	7	0	0	0	0	0	0	0	0	0	0	0	3	3	4	0	7		
25	Mammal	Otter Common	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	2	2	1	0	3		
26	Mammal	Rhinoceros Indian One Horned	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1		
27	Mammal	Squirrel GiantMalabar / Indian	1	3	0	4	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3		
28	Mammal	Tiger Bengal	4	1	0	5	0	1	0	1	0	0	0	0	0	0	0	4	4	2	0	6		
29	Mammal	Tiger Bengal (Albino)	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2		
30	Reptile	Cobra Indian	5	6	9	20	0	0	0	0	0	0	0	0	0	0	0	5	5	6	9	20		
31	Reptile	Cobra King	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1		
32	Reptile	Crocodile Long Snouted (Gharial)	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	6		
33	Reptile	Crocodile Marsh (Mugger)	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1		
34	Reptile	Monitor Lizard/ Common Indian	0	1	0	1	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1		
35	Reptile	Python Indian - Rock	4	3	0	7	0	0	0	0	0	0	0	0	0	0	0	4	4	3	0	7		
36	Reptile	Python Regal/ Reticulated	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	4		
37	Reptile	Snake Keelback Checkered	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4		
38	Reptile	Snake Rat/ Dhaman	2	2	10	14	0	0	0	0	0	0	0	0	0	0	0	2	2	2	10	14		
39	Reptile	Turtle Fresh Water/ Indian Soft Shelled	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5		
40	Reptile	Viper Russels	2	2	1	5	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	5		
			79	98	30	207	12	10	8	30	6	7	0	8	0	0	0	6	9	0	91	107	38	238

Sl. No.	Species	Name	Opening stock							Birth							Acquisition							Disposal							Death							Closing stock						
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T										
<b>SPECIES SCHEDULE III AND IV)</b>																																												
41	Bird	Darter - Snake Bird	1	1	0	2	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5								
42	Bird	Heron Grey	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4								
43	Bird	Heron Night	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2								
44	Bird	Heron Pond	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2									
45	Bird	Heron Purple	1	2	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	4								
46	Bird	Ibis White	5	6	2	13	5	2	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	8	7	25								
47	Bird	Kite Brahminy	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3									
48	Bird	Kite Pariah/ Black Kite	2	3	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	7									
49	Bird	Owl Barn	6	0	15	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	20	20									
50	Bird	Owl Brown Fish	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3									
51	Bird	Owl Eagle Forest	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2									
52	Bird	Parakeet Alexandrine	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3									
53	Bird	Parakeet Rose Ring	26	20	64	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	20	68	114									
54	Bird	Pelican Rosy/White	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5									
55	Bird	Pelican Spot Billed / Grey	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	4								
56	Bird	Stork Adjutant	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1								
57	Bird	Stork Painted	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	3							
58	Bird	Teal Lesser Whistling	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	6	11						



Sl. No.	Species	Name	Opening stock				Birth				Acquisition				Disposal				Death				Closing stock			
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T
59	Mammal	Deer Barking (Kakar)	4	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	8
60	Mammal	Deer Hog	12	32	0	44	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4	11	30	0	41	
61	Mammal	Deer Sambar	46	112	0	158	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	43	110	0	153
62	Mammal	Deer Spotted (Chital)	60	147	32	239	31	35	6	72	0	0	0	0	0	0	0	0	0	17	8	0	74	182	30	286
63	Mammal	Lion Hybrid	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	2
64	Mammal	Nilgai - Blue Bull	2	6	0	8	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2	8	0	10
65	Mammal	Porcupine Indian	2	2	4	8	4	3	0	7	0	0	0	0	0	0	0	0	0	0	2	0	6	3	4	13
66	Reptile	Krait Common Indian	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	3
67	Reptile	Sand Boa Common	1	2	0	3	0	0	0	0	0	3	0	3	0	0	0	0	0	0	4	0	1	1	0	2
68	Reptile	Sand Boa Red	3	1	8	12	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	8	8
69	Reptile	Snake Green Whip	2	1	0	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	2	0	0	2
70	Reptile	Snake Ornate	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	4
71	Reptile	Snake Trinket	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	4
72	Reptile	Snake Water	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	3
73	Reptile	Terrapin Red Eared	0	0	3	3	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	6	6
74	Reptile	Tortoise (Unidentified)	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
75	Reptile	Tortoise (Indian Star)	2	8	26	36	0	0	0	0	0	0	3	3	0	0	0	0	2	8	1	0	0	28	28	
76	Reptile	Turtle Pond	2	2	9	13	0	0	0	0	5	5	0	5	0	0	0	0	0	0	0	7	7	7	9	23
			197	371	180	748	43	42	11	96	11	13	19	33	0	0	0	0	39	29	1	213	403	196	816	

Sl. No.	Species	Name	Opening stock			Birth			Acquisition			Disposal			Death			Closing stock					
			M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U			
<b>EXOTIC SPECIES</b>																							
77	Bird	Amazon Blue Fronted	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
78	Bird	Cockatoo Moluccan/ Salmon Crested	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
79	Bird	Cockatoo Palm	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
80	Bird	Cockatoo Sulphur Crested	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
81	Bird	Conure Sun	4	1	12	17	0	0	0	0	0	0	0	0	0	0	0	0	4	1	12	17	
82	Bird	Duck White Crested	2	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	
83	Bird	Emu	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	6	
84	Bird	Fowl Guinea Vulturine	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
85	Bird	Fowl Guinea Kenya Crested	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	12	0	2	
86	Bird	Macaw Blue & Yellow	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
87	Bird	Macaw Green Winged	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
88	Bird	Macaw Scarlet	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
89	Bird	Macaw Yellow Collared	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
90	Bird	Ostrich	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	2	
91	Bird	Parakeet Eclectus	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
92	Bird	Parrots African Grey	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	
93	Bird	Pheasant Buff Ring Necked	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
94	Bird	Pheasant Golden	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5



Sl. No.	Species	Name	Opening stock			Birth			Acquisition			Disposal			Death			Closing stock						
			M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T	M	F	U	T		
<b>EXOTIC SPECIES</b>																								
95	Bird	Pheasant Lady Amherst	0	1	0	1	0	0	0	0	1	1	0	2	0	0	0	0	0	1	2	0	3	
96	Bird	Pheasant Melanistic	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2	
97	Bird	Pheasant Ring Necked	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	2	2	0	4	
98	Bird	Pheasant Silver	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6
99	Bird	Pheasant Yellow Golden	0	2	0	2	0	0	0	0	0	5	0	0	0	0	1	0	0	3	3	0	6	
100	Bird	Pigeon Blue Crowned	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2
101	Bird	Rhea Brown	17	13	30	0	0	0	0	0	0	3	3	0	0	0	0	0	0	14	10	0	24	
102	Bird	Rhea White	12	11	23	0	0	0	0	0	0	0	3	3	0	0	0	0	0	9	8	0	17	
103	Bird	Swan Black	2	2	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	1	5	
104	Bird	Turaco Livingstone	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
105	Bird	Turaco Violate	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
106	Mammal	Buffalo Cape African	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	
107	Mammal	Hippopotamus	2	7	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	9	
108	Mammal	Sugar Glider	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2	
109	Reptile	Anaconda Green	1	6	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	7	
110	Reptile	Caiman Spectacled	1	3	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	3	
			65	72	67	97	0	0	1	1	11	10	0	21	6	6	0	1	4	0	69	83	15	156
		<b>Grand Total</b>	<b>341</b>	<b>541</b>	<b>277</b>	<b>1052</b>	<b>55</b>	<b>52</b>	<b>20</b>	<b>127</b>	<b>28</b>	<b>30</b>	<b>19</b>	<b>62</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>46</b>	<b>42</b>	<b>1</b>	<b>373</b>	<b>593</b>	<b>249</b>	<b>1208</b>

## 27. Mortality of Animals

Sl. No	Animal name	Sex	Date of Death	Reason of death as per the Postmortem report
1	Snake Green Whip	F	11.04.2017	Prey Attack
2	Deer Sambar	M	17.04.2017	Infighting - Rib Fracture
3	Deer Sambar	M	21.04.2017	Infighting - Rib Fracture
4	Black buck	M	22.04.2017	Infighting - Rib Fracture
5	Deer Hog	M	27.04.2017	Infighting - Deep gore injury in the belly
6	Deer Hog	M	07.05.2017	Infighting - Rib fracture and Pleuritis
7	Deer Spotted	F	01.06.2017	Prolapse of Uterus and Shock
8	Black buck	M	01.06.2017	Infighting - Multiple injuries
9	Deer Spotted	F	06.06.2017	Infighting - Drowning ( Elephant Moat)
10	Owl Bam	M	10.06.2017	Predator Attack
11	Deer Spotted	M	10.06.2017	Infighting - Multiple injuries
12	Deer Sambar	F	11.06.2017	Right sided Cardiac Failure
13	Deer Spotted	M	14.06.2017	Infighting - Multiple injuries
14	Deer Spotted	M	19.06.2017	Infighting - Multiple injuries
15	Black buck	M	27.06.2017	Infighting - Severe injury in the left hand limb
16	Spotted Deer	M	16.07.2017	Infighting injury with tear on anus
17	Spectacled Caiman	M	16.07.2017	Infighting
18	Hog Deer	F	20.07.2017	Fracture on left foot & wounds.
19	Star Tortoise	F	23.07.2017	Egg bound (3)
20	Spotted Deer	M	27.07.2017	Severe infighting wounds with tear on rectum
21	Yellow Golden Pheasant	F	31.07.2017	Tumour in the oviduct
22	Spotted Deer	M	1.08.2017	Infighting wound with penetration wound on the rectum
23	Spotted Deer	M	4.08.2017	Infighting
24	Lesser Whistling Teal	M	8.08.2017	Infighting - Head Injury
25	Barn Owl	M	10.08.2017	Infighting
26	Spotted Deer	M	19.08.2017	Infighting - Pleuritis
27	Spotted Deer	M	28.08.2017	Infighting - Pleuritis
28	Porcupine	F	29.08.2017	Severe Infighting - Massive area of muscle and skin loss
29	Spotted Deer	M	7.09.2017	Infighting
30	Sand boa	F	12.09.2017	Septicaemia



Sl. No	Animal name	Sex	Date of Death	Reason of death as per the Postmortem report
31	Spotted Deer	M	12.09.2017	Infighting
32	Hog Deer	M	14.09.2017	Infighting
33	Star Tortoise	F	16.09.2017	Metabolic bone disease
34	Spotted Deer	M	17.09.2017	Infighting
35	Common Sand Boa	F	18.09.2017	Hypothermia - Pulmonary Congestion
36	Common Sand Boa	F	21.09.2017	Hypothermia - Pulmonary Congestion
37	Khalij Pheasant	F	22.09.2017	Egg bound
38	Star Tortoise	F	25.09.2017	Egg bound
39	Lion Tailed Macaque	F	25.09.2017	Multi Organ Failure - Old Age
40	Indian Rock Python	F	26.09.2017	Strangulation (By pen mate during feeding)
41	Barn Owl	M	26.09.2017	Infighting (Head injury)
42	Jackal	F	3.10.2017	Cardiac failure
43	Red Sand Boa	M	4.10.2017	Toxaemia, Scale rot
44	Hog Deer	F	6.10.2017	Severe infighting & trauma
45	Grey Pelican	F	10.10.2017	Old age - Blindness & Multiorgan failure
46	Sloth bear	M	11.10.2017	Old age - Hepatic carcinoma
47	Spotted Deer	M	11.10.2017	Infighting - Protrusion of intestine through the rectum.
48	Spotted Deer	M	11.10.2017	Infighting
49	Lion Hybrid	F	12.10.2017	Old age
50	Painted Stork	M	15.10.2017	Infighting with adjutant stork
51	Malabar Giant Squirrel	M	15.10.2017	Infighting
52	Spotted Deer	M	16.10.2017	Shock leading to volvulus
53	Barn Owl	M	19.10.2017	Head Injury
54	Lesser Whistling Teal	M	20.10.2017	Predator Attack
55	Star Tortoise	F	21.10.2017	Egg bound
56	Black buck	M	22.10.2017	Infighting
57	Star Tortoise	F	23.10.2017	Egg bound
58	Star Tortoise	F	23.10.2017	Egg bound
59	Indian Monitor Lizard	M	24.10.2017	Cancer of bone, Infighting
60	Yellow Collared Macaw	F	25.10.2017	Cardiac failure

Sl. No	Animal name	Sex	Date of Death	Reason of death as per the Postmortem report
61	Spotted Deer	M	25.10.2017	Infighting - severe chest injury
62	Spotted Deer	F	25.10.2017	Arthritis
63	Spoonbill	M	26.10.2017	Infighting
64	Spotted Deer	F	27.10.2017	Cardiopulmonary failure
65	Spotted Deer	F	28.10.2017	Infighting - Pulmonary haemorrhage
66	Red Sand Boa	F	30.10.2017	Septicaemia
67	Barn Owl	M	2.11.2017	Starvation due to inability to catch prey in enclosure
68	Spotted Deer	F	16.11.2017	Shock due to internal haemorrhage
69	Star Tortoise	F	17.11.2017	Egg bound
70	Hog Deer	M	26.11.2017	Infighting
71	Nilgiri Langur	F	27.12.2017	Cardiac failure
72	Ostrich	F	28.11.2017	Acute gastroenteritis
73	Barn Owl	M	11.12.2017	Starvation due to inability to catch prey in enclosure
74	Star Tortoise	F	20.12.2017	Egg bound
75	Spotted Deer	M	20.12.2017	Infighting - Extensive injury to perineam and chest
76	Spoonbill	F	28.12.2017	Infighting
77	Sand boa	F	7.01.2018	Scale rot, septicaemia
78	Spotted Deer	F	15.01.2018	Infighting - Cardiac Arrest
79	Star Tortoise	F	15.01.2018	Tortion of Urinary bladder
80	Spotted Deer	F	17.01.2018	Post parturient uterine prolapse and shock
81	Porcupine	F	23.01.2018	Infighting
82	Sambar Deer	M	25.01.2018	Infighting
83	Purple Heron	M	8.02.2018	Old age, blind, traumatic injury from inmates
84	Sambar Deer	F	10.02.2018	Infighting
85	Star Tortoise	M	28.02.2012	Infighting
86	Star Tortoise	F	1.03.2018	Infighting
87	Red Sand Boa	M	6.03.2018	Septicaemia
88	Golden Pheasant	F	13.03.2018	Predator Attack
89	Black buck	F	29.03.2018	Infighting - Volvulus, herniation of intestine
90	Red Sand Boa	M	30.03.2018	Septicaemia



## 28. Compliance with conditions stipulated by the Central Zoo Authority

S. No	Rule 10. Norm No.	Conditions stipulated	Time period to comply	Status with regard to the conditions.
1 General Requirements				
1	1 (7)	The vermi- compost area in front of the rhino exhibit should be kept clean and hygienic	With immediate effect	Completed
2. Administrative and Staffing pattern				
2	2 (2)	At present, the zoo has one full time Veterinary Officer working on deputation from State Animal Husbandry Department. It is recommended that the zoo authorities should appoint one fulltime Veterinary Officer with the zoo.	Six months	Since it requires sanction from Government, the matter has been reported to Government.
3. Development and Planning				
3	3 (3)	The Zoo should implement the Disaster Management Plan, as approved by the Central Zoo Authority in the Master Plan of the zoo by carrying out mock drill, awareness programmes for staff.	Six months	Its being implemented
4. Animal housing, display of animals and animal enclosures.				
4	4 (1)	Plant tall trees along the backside of the enclosure for Sambar so as to camouflage residential houses in the backside.	With immediate effect	Planting in progress
5	4 (1)	All metal rods provided in the aviaries should be replaced by wooden perches. The scooter tyres hang inside the aviary for Pariah kite should be removed.	With immediate effect	Work completed
6	4 (1)	The rear wall of the MGS (toiled block of Museum) visible from the visitor's pathway while viewing the Lion tailed macaque should be appropriately camouflaged.	Two months	Work completed

S. No	Rule 10. Norm No.	Conditions stipulated	Time period to comply	Status with regard to the conditions.
7	4(2), 4(3) & 4(9)	The One horned rhinoceros enclosure dominated by Oak vegetation should be replaced with tall grasses with protection, so as to provide the naturalistic look of the exhibit. The Hedge used as a barrier to be continued all around. Gate from the moat to bring back the Rhino to its houses should be repaired.	Two months	In progress
8	4(3)	The boundary wall towards Nandancod Road near aviaries should be provided with green buffer to reduce vehicular sound.	Six months	In progress
9	4(3)	Leopard and Tiger houses are accessible to the visitors. The same should be provided appropriate screening. The paddock area of the enclosure for Tiger should be increased and made as prescribed by the Central Zoo Authority.	Three months	Work completed
10	4(3), 4(4), 4(5) & 4(6)	The paddock area of the Lion Tailed Macaque (LTM) enclosure should be enlarged and same should be enriched. The night houses of enclosure for Lion Tailed macaque should be disinfected every every 15 days by using Dettol/ Savlon. The existing metal structures in the paddock should be replaced by wooden artefacts.	With immediate effect	Amount deposited with Kerala Public Works Department for execution of work
11	4(5)	The enclosure for White tiger doesn't meet the standards and norms as prescribed by the CZA. The zoo should submit the design of the enclosure as per the CZA norms.	With immediate effect	Will be complied in future
12	4(6)	All the aviaries should be provided with nesting material along with enrichment.	With immediate effect	Work completed
13	4(6)	The Common Krait enclosure should be provided with wooden log.	With immediate effect	Work completed



S. No	Rule 10. Norm No.	Conditions stipulated	Time period to comply	Status with regard to the conditions.
14	4(7)	There should be screening between animal houses and paddock of the Malabar Giant Squirrel. The service gate presently located towards visitor side should be shifted to an appropriate place.	Three months	Work completed
15	4(7)	The zoo should provide adequate buffer between the isolation cum quarantine area and proposed future exhibit for Porcupine.	Three months	Will be complied in future
16	4(10)	All the signage in the zoo should be improved. Besides, size of the signage should be increased appropriately.	With immediate effect	Will be complied in future
<b>5. Upkeep and Healthcare of animals.</b>				
17	5(10)	Individual Animal History Card should be maintained for all the animals specified in Schedule I and II of the Wildlife (Protection) Act, 1972.	With immediate effect	Work completed
<b>6. Veterinary and infrastructure facilities.</b>				
17	6(5)	The zoo should appoint veterinary support staff to assist the Veterinary Officer at the zoo.	Six months	Presently Lab Assistant and Live Stock Inspector assist the Veterinary Surgeon
<b>7. Post-mortem and disposal of carcasses of animals.</b>				
18	7(4)	The zoo should have an incinerator of appropriate size to burn the carcass of animals specified in Schedule I and II of the Wildlife (Protection) Act, 1972, particularly large carnivores.	Three months	Will be complied in future
<b>8. Acquisition and breeding of animals.</b>				
19	9(9)	The zoo is housing Sambar deers beyond the carrying capacity. The zoo should control its population	Three months	Population control measures adopted
20	9(9)	The zoo has Indian black turtles beyond its carrying capacity. The excess number should be shifted to a recognized zoo.	Three months	Excess black turtles are being shifted to the pond in the compound



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



**Peafowl**



**Bonnet Macaque**



