ANNUAL REPORT
2017-2018

ARIGNAR ANNA ZOOLOGICAL PARK, VANDALUR, CHENNAI

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MESSAGE FROM DIRECTOR'S DESK

Arignar Anna Zoological Park is one of the largest Zoo catering to the needs of conservation of wild animals in particular to conservation of threatened and endangered species of Western and Eastern Ghats. Arignar Anna Zoological Park acts as home to the abandoned and rescued animals from the wild and also to the large number of rescued Tiger and Lions from the circus. Arignar Anna Zoological Park is one of the largest ex-situ conservation centers in the country that has a history of successful breeding of many endangered wild animals in captivity. Every effort has been made to provide required housing, feed and health care to all the animals in the zoo and rescue center.

The number of visitors visiting to the Arignar Anna Zoological Park is increasing year after year. This year more than 19 lakh visitor footfall was recorded. Continuous measures are being taken to provide required facilities to the visitors. The Education wing of the zoo has imparted training and conducted awareness programmes to animal keepers, students and teachers.

New schemes like On-Line Ticketing facility and Live Streaming Facility of important animals were made as special announcements by then Hon'ble Chief Minister of Tamil Nadu was put open to the public usage. This has received an overwhelming response from the public.

Animal health care is given more importance in our zoo. We strive to ensure that the animals are screened regularly for occurrence of any disease, timely prophylactic measures are taken. The animal sanitation and hygiene is also maintained well. The sustained work by the Zoo Veterinarians and the Biologists has made all this possible. The results are evident with the recorded captive breeding.

The salient highlights of this year includes three major animal exchanges with large zoos of India, improving the visitor facilities, repairing the damages of Cyclone Vardah, Visit of VIPs from across the country, etc.,

The zoo staffs work with sincerity and devotion to their job which helps the zoo to run successfully all these years. I appreciate everyone in the Zoo for having made it a successful year in the maintenance of the zoo and proving again that Arignar Anna Zoological Park, Vandalur is one of the best managed zoo's in our country.

Thiru. S.Yuvaraj, IFS

Additional Principal Chief Conservator of Forests & Director


FACETS OF VANDALUR ZOO

HISTORY OF ARIGNAR ANNA ZOOLOGICAL PARK

The history of Chennai Zoo (formerly known as Madras Zoo) dates back to the year 1855. This was the first Zoo to be formed in India. The idea of collection of animals and maintaining at one place was mooted in 1855 by Dr. Edward Belford of the Madras Museum. He kept a small collection of animals near the Madras museum. The menagerie was later transferred to the Madras Corporation. The animals were housed in a Zoo over an area of 12.03 acres behind the then Moore Market Complex near Central Station for about 125 years. The Corporation Zoo was visited and appreciated by many distinguished visitors in those days. Jawaharlal Nehru once visited the Zoo and praised the standard of maintenance, care and effort taken by the then Curator Thiru.Ramanunjalu. As the Zoo was quite cramped and did not meet the biological and behavioural needs of the animals, decision was taken to shift the zoo to an alternative site where adequate land to develop the required infrastructure for a modern zoo was available. After detailed investigation the Vandalur Reserve Forest was selected for this purpose. This place sprawling over an area of about 510 ha (in its initial stages) provided an environment similar to natural wilderness which helped to meet the biological and physiological need of the animals and birds. The present area of the zoo has requisite natural vegetation for creating the naturalistic environment at the zoo. Arignar Anna Zoological Park is one of the biggest zoos in South East Asia extending over an area of 602 ha. The estimated initial cost of the project was about Rs. 7.30 crores. The zoo was opened to public during the year 1985. The existing landscape was utilized as it is and all the animals were exhibited in large open moated island type enclosure with simulated environment. The entire area was clothed with vegetation both by mostly by natural and some artificial regeneration.

Arignar Anna Zoological Park is one of the modern and scientifically managed zoos of the Country with 259 full time staff and additional contract workers. This Zoological Park is the pride of the Tamil Nadu. It has attained excellence in the Captive Breeding Programme for endangered species and also in the field of zoo education by creating awareness about the conservation of natural resources. The functions carried out in the zoo include Animal welfare, Commissary (Store), Transport, Research, Education and Awareness, Veterinary, Horticulture, Security and Sanitation and Zoo administration. The zoo has a well-equipped zoo kitchen, zoo hospital and quarantine area facility.

Tariff Details

Children above 5years and below 12 years	Rs 20.00
Adult	Rs 50.00
School Children (5-12 years) from Government Schools and Aided schools	Rs 10.00
Battery operated and other Zoo round vehicles for adult	Rs 100.00
Battery operated and other Zoo round vehicles for Children	Rs 50.00
Lion safari for adult	Rs 50.00
Lion safari for children	Rs 30.00
Camera	Rs 25.00

Other Details

- Number of Animal Houses - 89 Nos.
- Zoo Holiday - Every Tuesday
- Zoo Timing - 9.00 am to 6.00 pm
- Area - 602 hectares
- Location - Vandalur Reserved Forest, Kanchipuram District

VISION

- To focus on conservation breeding of highly endangered and endemic animals.
- Scientific Captive Breeding of threatened animals to maintain its gene pool.
- To act as an education center for the conservation of wildlife and forests to the visitors.

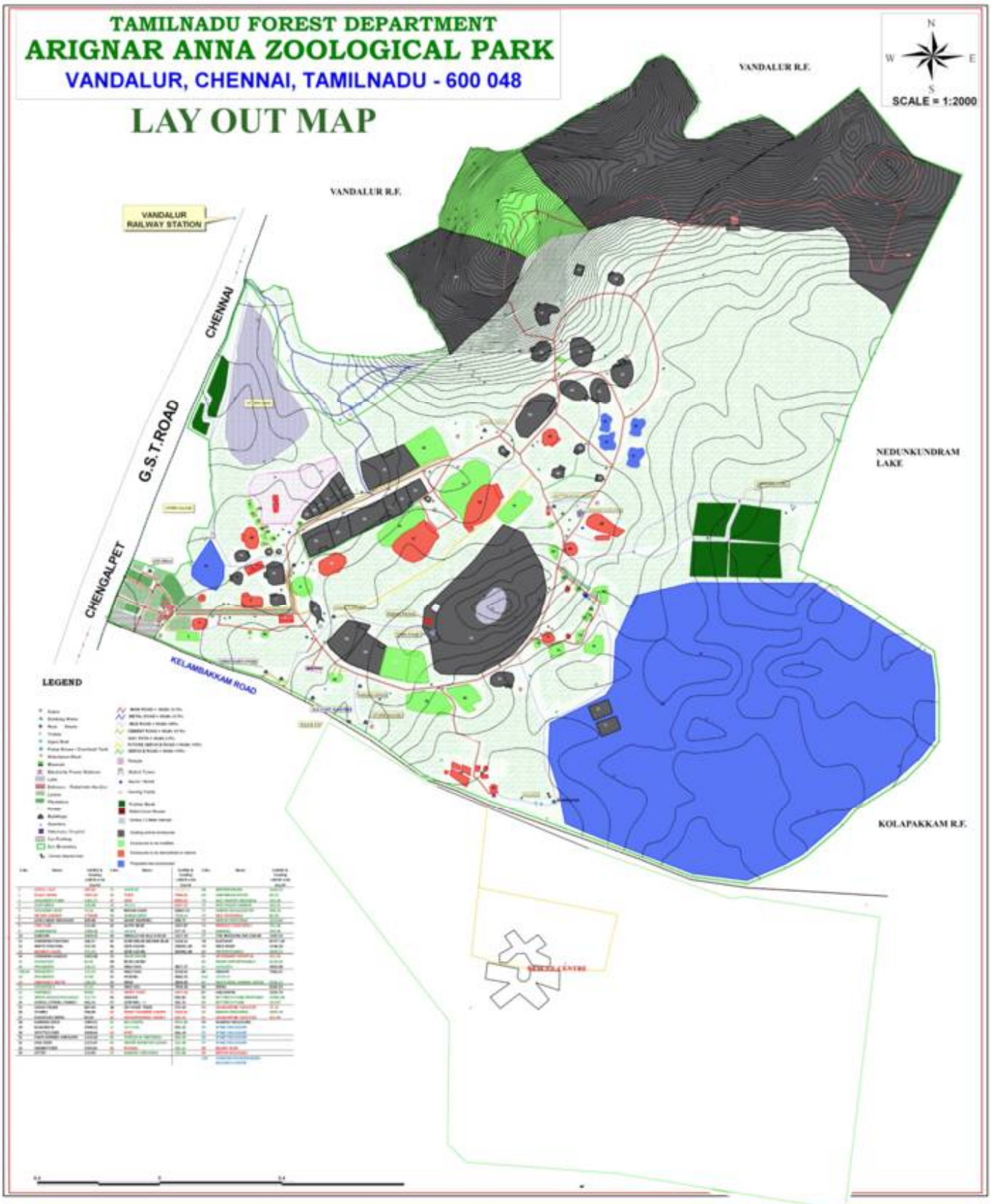
MISSION

- To serve as a dynamic nature conservation centre by promoting breeding programme for rare and endangered species of the Western and Eastern Ghats.
- To encourage the people to develop a caring attitude towards flora and fauna
- To offer excellent public service, recreation, and to provide eco-awareness to public.

OBJECTIVES

- Ex-situ conservation and propagation of the fauna of Western and Eastern Ghats.
- Initiate captive breeding programme for endangered species in accordance with the protocol for rehabilitation of this species in the wild if necessary.
- Promote zoo as a center of conservation awareness through wild life education and interpretation programme to elicit the public support from different sections of the society and to enhance public awareness on wild life.
- Provide opportunity to conduct scientific studies on the fauna in order to enhance the knowledge on animal behavior, its biology, ecology etc., so as to aid in scientific management of the zoo and conservation of wildlife.
- To provide facility for health care and rehabilitation of rescued animals.

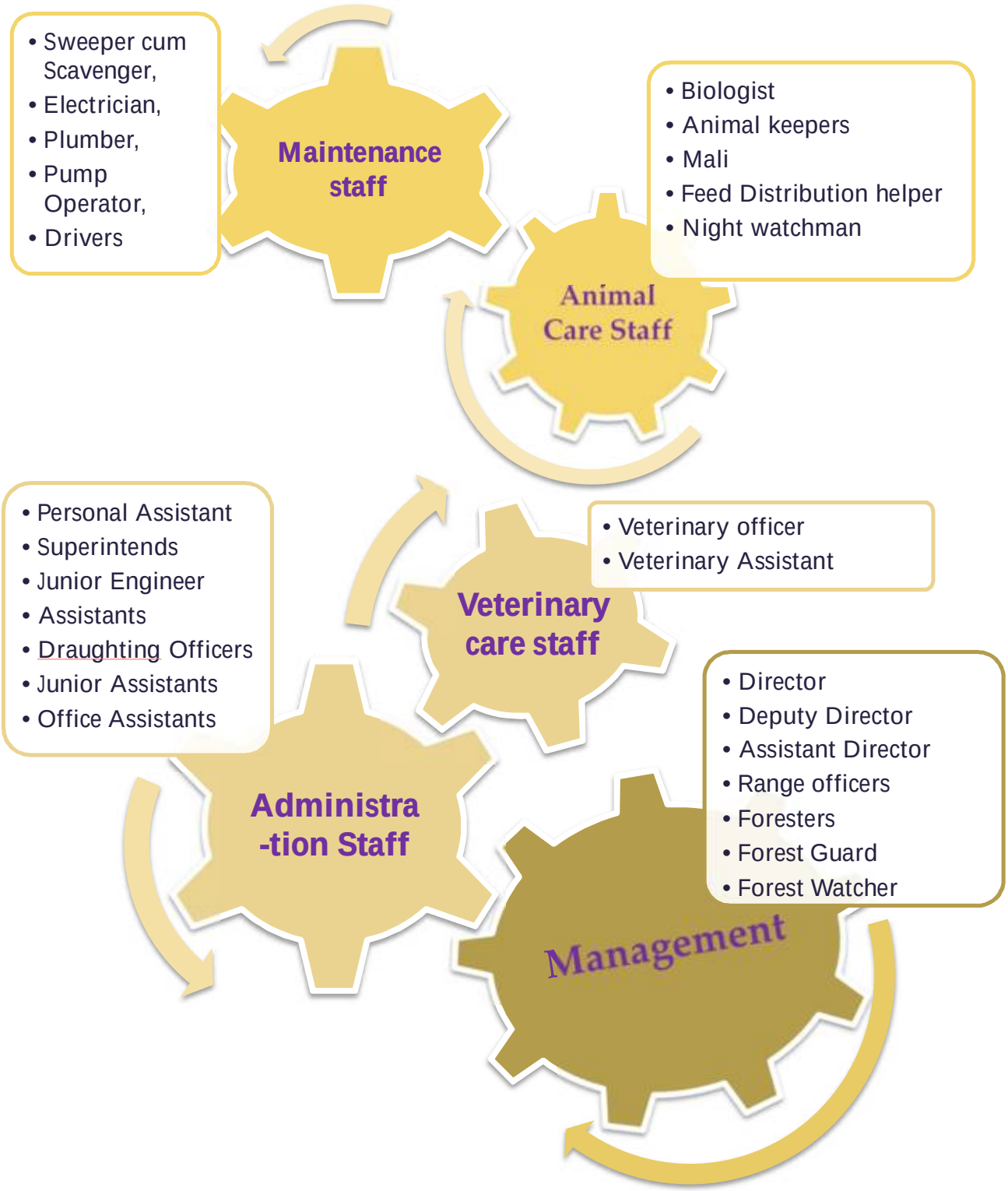
Layout Map of Arignar Anna Zoological Park



ABOUT ARIGNAR ANNA ZOOLOGICAL PARK

Particulars	Information
Basic Information	
• Name of the Zoo	Arignar Anna Zoological Park
• Year of Establishment	1985
• Address of the Zoo	Vandalur, Chennai -48
• State	Tamil Nadu
• Telephone Number	044-22751089
• Fax Number	044-22750741
• E-mail address	directoraazp1@gmail.com
• Website	www.aazp.in
• Distance from nearest	Airport: 15 Km , Railway Station: 1 Km, Bus Stand: 100 mtrs
• Recognition Valid up to	May 2019
• Category of zoo	Large Zoo
• Area (in Hectares)	602
• Number of Visitors • (Financial Year 2017-18)	Adult : 1522168 , Children : 420579 Total Indian :1942747 Total Foreigners : 2575 **Total Visitors: 1945322**
• Visitors' Facilities Available in Zoo	Battery operated Vehicle, Lion and Deer Safari, Interpretation Centre, Wheel Chair Facility, bicycle facility, Drinking Water Points and Toilets, Rest Sheds, Food Eatery Outlets etc
• Weekly Closure Day	Tuesday
Management Personnel	
• Name with designation of the Officer in-charge	Sh. S.Yuvaraj, IFS Addl. Principal chief Conservator of Forest and Director
• Name of the Curator / Deputy Director	Smt. Sudha S, IFS Deputy Director
• Name of the Veterinary Officer (i/c)	Dr.Sridhar,Veterinary Assistant Surgeon Dr.Nalini, Veterinary Assistant Surgeon
• Name of the Biologist	Dr. A.Manimozhi, Dr. M.Sekar, Sh.G.Kamaraj
Operator of the Zoo	
• Name of the Operator	Tamil Nadu Forest Department, Government of Tamil Nadu
• Address of the Operator	Arignar Anna Zoological Park, Vandalur, Chennai, Tamil Nadu
• Contact details/Phone number of Operator	06381324543
• E-mail address	directoaazp1@gmail.com

ORGANIZATIONAL CHART



HUMAN RESOURCES

S.No	Name of the post	Post sanctioned	Post filled	S.No	Name of the post	Post sanctioned	Post filled
1.	Director	1	1	**22.**	Electrician II	1	1
2.	Deputy Director	1	1	**23.**	Electrician	1	1
3.	Assistant Director	2	1	**24.**	Assistant Electrician	1	1
4.	Superintendent	3	2	**25.**	Plumber	4	3
5.	Assistant Executive Engineer	1	1	**26.**	Office watchman	1	1
6.	Junior Engineer	2	1	**27.**	Night watchman	11	11
7.	Draughting Officer	2	2	**28.**	Animal keeper	54	53
8.	Veterinary Officer	1	0	**29.**	Gardener	6	5
9.	Veterinary Assistant Surgeon	2	2	**30.**	Gate watchman	9	9
10.	Biologist	3	3	**31.**	Sweeper cum scavenger	32	21
11.	Ranger	8	4	**32.**	Pump operator	10	6
12.	Forester	9	6	**33.**	Feed distribution helper	6	6
13.	Forest Guard	9	7	**34.**	Mahout & cavady	3	0
14.	Driver	16	13	**35.**	Mali	34	28
15.	Assistant	6	1	**36.**	Bungalow watcher	1	0
16.	Junior Assistant	5	2	**37.**	Security watchman	4	4
17.	Assistant Draughtsman	2	2	**38.**	Forest watcher	2	1
18.	Steno typist	2	0	**39.**	Sweeper	1	1
19.	Typist	2	1	**40.**	Livestock Inspector	1	0
20.	Junior Accountant	1	1	**41.**	Lab technician	1	0
21.	Office Assistant	8	3				

ZOO AUTHORITY OF TAMIL NADU

In accordance with the guidelines from the CZA and with an objective to facilitate supervision, control and management of AAZP and for easy flow of funds for the development and better management of the zoo, the Government of Tamil Nadu approved the formation of Zoo Authority of Tamil Nadu vide G.O.Ms.No.314 E & F (FR-V) Department dated: 03.12.2004.

The 19th Governing Board Meeting of the Zoo Authority of Tamilnadu was held on 12.10.2017 under the chairmanship of Hon'ble Chief Minister of Tamil Nadu at the Board Room, Advanced institute of Wildlife Conservation (Research, Training and Education).

Governing Board of the Zoo Authority of Tamil Nadu constitutes Hon'ble Chief Minister of Tamil Nadu as Chairperson, Hon'ble Minister for Forest as Vice-Chairperson, the other members of the Board includes - Chief Secretary of the State, Secretary to the Government, E&F Department as Chairman, Secretary to the Government (Finance Department), Secretary to the Government(Animal Husbandry and Fisheries Department), Principal Chief Conservator of Forest, Vice –Chancellor of Tamil Nadu Veterinary and Animal sciences University, Chennai, Director of Environment, Commissioner(Tourism Department), Chief Wildlife Warden and the Member Secretary is the Director, AAZP

ZOO ADVISORY COMMITTEE

a. **Date of constitution -** 28.04.2011

b. **Members**

I. Sh. S.Subarayalu Naidu IFS, Principal Chief Conservator of Forests (Retired)

II. Sh. R.Sundararasu IFS, Principal Chief Conservator of Forests (Retired)

III. Dr.N.Krishnakumar IFS, Principal Chief Conservator of Forests (Retired)

IV. Sh. S.Yuvaraj IFS, Additional Principal Chief Conservator of Forests & Director, AAZP

V. Dr.S.Paulraj,IFS, IFS, Conservator of Forests,(Retired)

VI. Professor & Head, Wildlife science, Madras Veterinary College, Chennai

VII. Smt Sudha.S, Deputy Director, AAZP

c. **Dates on which Meetings held during the year -** 30.03.2018

CAPACITY BUILDING OF ZOO PERSONNEL

TRAININGS ATTENDED BY AAZP STAFFS

S.No	Name	Designation	Training on	Period
1	S.Yuvaraj,IFS,	Addl.PCCF & Director	Eco development and Biodiversity	20.11.2017 to 21.11.2017
2	S.Yuvaraj,IFS, Dr. Manimozhi	Addl.PCCF & Director, Biologist	Annual conference of Indian Zoos 'vision 2030'held at Mysuru Zoo	19.12.2017 to 21.12.2017
3	Dr.M.Sekar	Biologist	Middle level officers training held at Patna	11.12.2017 to 14.12.2017
4	Dr.Manimozhi	Biologist	ZIMS training held at Nehru Zoological Park, Hyderabad	8.05.2017
5	Dr. Manimozhi Dr. M. Sekar	Biologists	Environmental education to school students held at Chennai snake park, Guindy	14.07.2017
6	Dr.A.Manimozhi, Dr M.Sekar, Mr G.Kamaraj, Dr.K.Sridhar,Dr.Boon Allwin Dr.Kalaignan	Biologists & Veterinarians	ZIMS training at Arignar Anna Zoological Park, Chennai	06.02.2018 to 07.02.2018

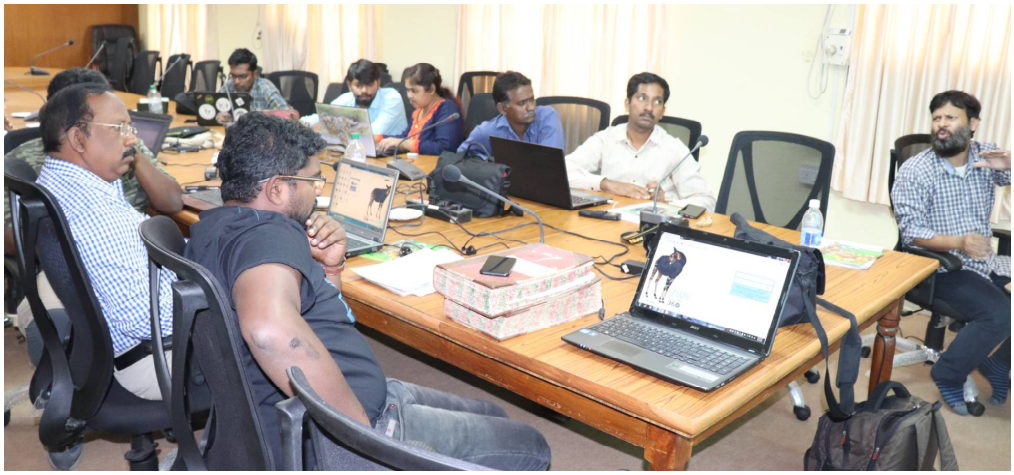
SOUTH INDIAN ZOO KEEPERS THEME BASED TRAINING ON 'VISION 2030'

Arignar Anna Zoological Park in collaboration with Central Zoo Authority, conducted theme based training program for South Indian Zoo Animal Keepers on the theme of "CZA VISION 2030" from 10.02.2018 to 15.02.2018. Fifteen zoos inclusive of Arignar Anna Zoological Park participated in this training.

- Kurumbapatty Zoo, Salem
- Banergatta Biological Park,
- Kalaburgi Zoo
- Sri Venkateswara Zoological Park, Tirupathi
- Indra Gandhi Zoological Park, Vizhagapattinam
- Nehru Zoological Park,
- Sri Chamarajendira Zoological Park, Mysore
- Belgaum Zoo
- Karim Nagar Deer park
- Arignar Anna Zoological Park,
- Chennai Snake Park
- Olavakkode Zoo
- Thiruvananthapuram Zoo,
- Indira Priyadarshini Mini zoo, Ahgodu
- Children`s Park, Guindy

ZIMS TRAINING

ZIMS training for South Indian Zoos organized by CZA was hosted by AAZP from 5th to 6th March, 2018. Six institutions participated - Bannerghatta Biological Park, Nehru Zoological Park, Mysore Zoo, Pilikula Biological Park, Madras Crocodile Bank and Arignar Anna Zoological Park. ZIMS is a comprehensive information application designed to manage information about animal accessions and dispositions, animals wanted and available, behavioural observations, feed log information. The training was given by Dr. Mion Ahmed from ZIMS network. The modules were practically demonstrated. Zoo veterinarians, curators, education officers and biologists of the various institutes attended this training.



ZOO KEEPERS TRAINING

Zoo Animal Keepers Training on Zoo animal upkeep and Management was conducted in batches. The topics covered were zoo enclosure sanitation and hygiene, basics of zoo enclosure enrichment, Zoo record keeping, Butterfly park management, disaster management and Zoo animal healthcare management. Each batch comprised of 20 keepers from various zoos of Tamil Nadu under the Zoo Authority of Tamil Nadu. Zoo animal keepers showed great interest in learning new techniques during the practical part. 140 Zoo keepers were benefited from the seven training programme.

MOU WITH TNOU

Arignar Anna Zoological Park entered on Memorandum of Understanding with Tamil Nadu Open University to start a study centre at the zoo. Many zoo staffs have enrolled in education programmes offered by this University. They have also started specialized courses in the fields like Wildlife Science, Wildlife tourism etc. along with the regular courses, The study centre opened at the zoo also helps the visitors to know about the courses offered in this university and many visitors have registered for the courses.

STATEMENT OF INCOME AND EXPENDITURE 2017-18

ANNUAL BUDGET DETAILS (EXPENDITURE)

PARTICULARS AND WORK	EXPENDITURE 2017-18
Feed	445.54
Wages to casual labour	162.68
Office Maintenance	9.12
Creation and maintenance of animal enclosures, lawns, roads, fodder plots, drainage, water supply lines, Compound walls, Electricity charges etc.,	399.89
Creation and maintenance of visitor amenities	100.43
Zoo school programmes, awareness programmes, signage's, maintenance of buildings, staff amenities etc.,	50.01
Purchase of Machinery and equipment - *purchase of Battery Operated Vehicles & Accessories	40.00
Maintenance of vehicles	24.80
Medicines & Veterinary care	11.32
Printing tickets, brochures, Entry Management System, etc.,	4.11
Animal Exchange programmes and transportation	1.42
Capital works - *black topping damaged roads due to desilting of water bodies, providing additional protection for boundary walls etc.,	177.18
Total	**1426.50**

DETAILS OF REVENUE GENERATED DURING 2017-18

PARTICULARS	RECEIPT
Revenue from Tickets	118739307.11
Hotel Tamilnadu, Bicycle & Toilet lease	6878389.00
Animal Adoption	1306591.00
Contractor registration and Tender Schedule sale	453450.00
Poompuhar, Aavin, Tantea & MPDA Rent	1865557.00
Sale of scrap/ waste and other articles	18456984.00
RH Rent	32970.00
Reseach Fees	7000.00
Total Revenue	147740248.11

DAILY FEEDING SCHEDULE OF ANIMALS

There are about 2400 animals maintained at Arignar Anna Zoological Park, Vandalur. The animals are regularly monitored by the biologists and the veterinary doctors. The feed of the animal is continuously changed with the prevailing body conditions of the animal, their height and other biological parameters are regularly monitored and recorded, accordingly their feed is calculated. Special feed is provided to the animals during summer.

Species	Feed item	Quantity
Lion Tailed Macaque **Rhesus Macaque** **Bonnet Macaque**	Rice	25 gms
	Groundnut (without shell)	25 gms
	Banana	3nos.
	Sathukudi/Orange/ Mango	1no
	Guava	1 no.
	Bengal gram	15 gms
	Cabba1ge	50 gms
	Greens(different)	100 gms
	Bread slice	3 nos.
	Boiled egg	1 no (alternate days)
	Soyabex	20 gms
	Carrot	25 gms.
	Grapes	20 gms
	Honey	12 ml
	Seasonal fruits	
	Sitapal	50 gms
	Nelli	20 gms
	Naaval	20 gms
	Ilandhai	20 gms
	Cucumber	50 gms
	Watermelon	30 gms
	Jack fruit	15 gms
Nilgiri Langur **Common Langur**	Rice	30 gms
	Groundnut (w.o.s)	15 gms
	Banana	4 nos.
	Sathukudi/Orange/Mango	1 No
	Guava	1 No
	Bengalgram	15 gms
	Cabbage	30
	Greens	100 gms
	Bread slices	3
	Boiled egg	1 no (alternate days).
	Soya bean bex	20 gms
	Carrot	25 gms

	Grapes	20 gms
	Honey	10 ml
	Seasonal fruits	
	Sitapal	100 gms
	Nelli	30 gms
	Naaval	30 gms
	Ilandhai	30 gms
	Cucumber	50 gms
	Watermelon	100 gms
	Jack fruit	50 gms
Capuchin Monkey	Rice	25 gms
	Bengal gram	10 gms
	Banana	2 Nos
	Groundnut (w.o.s)	25 gms
	Sathukudi/Orange/Mango	1 no
	Guava	2 nos.
	Grapes	50 gms
	Cabbage	25 gms
	Boiled egg	1 no
		(alternate days)
	Apple	½ no
	Carrot	25 gms
	Bread slice	1 No
	Greens	50 gms
	Soyabex	20 gms
	Honey	10 ml
	Seasonal fruits	
	Sitapal	50 gms
	Nelli	20 gms
	Naaval	20 gms
	Ilandhai	20 gms
	Cucumber	50 gms
	Watermelon	100 gms
	Jack fruit	50 gms
Savanna Baboon	Rice	50 gms
	Groundnut (w.o.s)	50 gms
	White Bengal gram	50 gms
	Cabbage	50 gms
	Carrot	100 gms
	Soyabex	20 gms
	Banana	4 Nos
	Sathukudi/Orange/ Mango	2 Nos
	Guava	2 Nos
	Boiled egg	1No
		(alternate days)
	Bread slices	4 Nos

	Grapes	20 gms
	Greens	100 gms
	Honey	10 ml
	Beef without bone	100gms (Mondays & Thursdays)
	Seasonal Fruits	
	Sitapal	100 gms
	Nelli	50 gms
	Naaval	50 gms
	Ilandhai	50 gms
	Cucumber	50 gms
	Watermelon	100 gms
	Jack fruit	50 gms
Chimpanzee	Rice	100 gms
	Boiled horsegram	25 gms
	Sprouted green gram	50 gms
	Bread slices	8 Nos
	Sathukudi/ Orange/Mango	4 Nos
	Guava	8 Nos
	Banana	10 Nos
	Apple	5 Nos
	Papaya	300 gms
	Groundnut (w.o.s)	25 gms
	Cabbage	100 gms
	Carrot	100 gms
	Grapes	100 gms
	Greens	100 gms
	Bengal gram	50 gms
	Boiled egg	1No
	Milk	1 lt.
	Seasonal fruits	
	Sitapal	150 gms
	Nelli	100 gms
	Naaval	100 gms
	Ilandhai	100 gms
	Water melon	1 kg
	Jack fruit	100 gms
	Cucumber	100 gms
CARNIVORES		
Jaguar	Beef with bone	4 kgs
	Liver	150 gms
Lion	Beef with bone	7 Kgs
	Liver	150 gms
Tiger	Beef with bone	7 Kgs
	liver	150 gms
Leopard	Beef with bone	4 kgs

	liver	100 gms
Wild dog	Beef with bone	3 kgs
	liver	100 gms
Jackal	Beef with bone	2 kg
	liver	100 gms
Hyena	Beef with bone	3.5 kgs
Wolf	liver	100 gms
Jungle cat	Beef with bone	500 gms
	liver	50 gms
	Milk	100 ml
Palm civet cat	Beef	500 gms
	Banana	1 No
	Milk	50 ml
	Bread slice	1 No
Sloth bear	Ragi (cooked)	300 gms
Himalayan black bear	Rice gruel with black gram	250+50 gms
European brown bear	Sathukudi/orange/mango	2 Nos.,
	guava	4 Nos.,
	Tapioca/sweet potato	100 gms
	jaggery	200 gms
	banana	4 Nos
	Ground nut (w.o.s)	100 gms
	Honey	100 gms (Bi-weekly)
	Milk	500 ml
	Bread slices	2 Nos.,
	Carrot	200 gms
	Boiled egg	1 No
	Cucumber	250 gms
	Water melon	500 gms
European brown bear	Fish	250 gms (Bi-weekly)
Binturong	Apple	1 no.,
	Banana	6 nos
	Sathukudi/orange/mango	2 nos.,
	guava	2 Nos
	Tomoto	100 gms
	carrot	100 gms
	Beef with bone	500 gms
Otter	Fish	1.5 kg
	HERBIVORES	
Kangaroo / Wallaby	Bengal gram	100 gms
	Carrot	100 gms
	Cabbage	100 gms
	Banana	6 Nos.
	Apple	2 Nos.

	Bread slices	4 Nos.
	Grass	3 kgs
	Greens	250 gms
Indian elephant (Vikram)	Ragi	6 kgs
	Horse gram	4 kgs
	Rise	1 kg
	Salt	200 gms
	Jaggery	250 gms
	Grass	200 kgs
	Sugarcane	8 Nos.,
	Green tree leaves-bamboo	100 kgs
	coconut	1 kg
	banana	20 Nos
	Banana stem	1 No
	(Weekly once)	
	Wood apple	250 gms
	Watermelon	500 gms
Indian elephant	Ragi	3 kgs
	Horse gram	1 kg
	Jiggery	250 gms
	Salt	50 gms
	Banana	15 Nos
	Grass	75 kgs
	Sugarcane	3 Nos.,
	Green tree leaves-bamboo/stylo	25 kgs
	Coconut	500 gms
	Banana stem	1/2 No
	Wood apple	250 gms
	Water melon	500 gms
Indian giant squirrel **Grizzled giant squirrel**	White Bengal gram	25 gms
	Apple	½ No
	grapes	50 gms
	Bread slices	1 no
	Banana	1 no
	Ground nut (w.o.s)	25 gms
	Carrot	25 gms
	Cabbage	25 gms
	Sathukudi/orange/mango	½ no
	Guava	1 no
	Coconut with shell	75 gms
	Tree leaves	100 gms
	papaya	50 gms
	Greens	50 gms
Porcupine	Rice	100 gms
	Carrot	100 gms

	Cabbage	100 gms
	Tapioca or sweet potato	100 gms
	Soya bex	20 gms
	Ground nut (w.o.s)	25 gms
	Banana	1 No.
Wild Ass	Wheat bran	5 kg
	White Bengal gram	100 gms
	Horse gram	100 gms
	Banana	5 Nos
	Carrot	500 gms
	Cabbage	500 gms
	Mineral mixture	50 gms
	Green leaves	5 Kgs
	Grass	20 kgs
	Greens	250 gms
Zebra	Wheat bran	3 kgs
	Horse gram	500 gms
	White Bengal Gram	500 gms
	Grass & Leaves	30 kgs
	Carrot	500 gms
	Cabbage	500 gms
	Mineral Mixture	50 gms
	Banana	10 Nos
Hippopotamus	Wheat bran	10 kgs
	White Bengal gram	250 gms
	Salt	250 gms
	Apple	2 Nos
	Potato	500 gms
	Carrot	2 kgs
	Cabbage	1 kg
	Onion	250 gms
	Banana	10 Nos
	Grass	100 kgs
	Greens	1 kgs
	Bread	2 loaves (800 gms)
	Multivitamin Mixture	50 gms
Pygmy Hippo	Wheat Bran	2.5 kgs
	White Bengal Gram	100 gms
	Salt	50 gms
	Carrot	1 Kg
	Cabbage	250 gms
	Onion	100 gms
	Banana	5 Nos
	Apple	2 Nos.
	Bread	1 Loaf

	Potato	250 gms
	Greens	500 gms
	Grass	10 kgs
Indian Gaur	Leaf bran	3 kgs
	Wheat bran	2 kgs
	Cattle feed	3 kgs
	Horse gram (Boiled)	750 gms
	Groundnut oil cake	750 gms
	Banana	5 Nos
	White Bengal gram	500 gms
	Green gram sprouted	300 gms
	Salt	100 gms
	Green grass	25 kgs
	Straw	3 kgs
	Tree leaves	10 Kgs
	Greens	500 gms
Swamp deer **Manipuri deer**	Wheat leaf bran	1.5 kgs
	Cattle feed	750 gms
	Horse gram boiled	500 gms
	Bengal gram	250 gms
	Groundnut oil cake	250 gms
	Cabbage	250 gms
	Salt	25 gms
	Grass	10 kgs
	Green Leaves	3 kgs
	Greens	500 gms
Blackbuck **Hog deer** **Spotted deer**	Wheat Bran	500 gms
	Cattle feed	500 gms
	White Bengal Gram	50 gms
	Groundnut oil cake	50 gms
	Cabbage	100 gms
	Salt	10 gms
	Grass	3 kgs
	Green Leaves	2 kgs
	Greens	250 gms
Barking deer **Mouflon** **Four horned antelope**	Wheat Bran	500 gms
	Cattle feed	500 gms
	White Bengal Gram	50 gms
	Groundnut oil cake	50 gms
	Cabbage	100 gms
	Salt	10 gms
	Grass	3 kgs
	Green leaves	2 kgs
	greens	250 gms
Sambar	Wheat Bran	1.5 kgs

	Cattle feed	1.5 kgs
	Groundnut oil cake	100 gms
	White Bengal Gram	100 gms
	Cabbage	100 gms
	Greens	250 gms
	Salt	20 gms
	Grass	15 kgs
	Tree branches (with bark)	5 kgs
Nilgai	Wheat Bran	1.5 kgs
	Cattle feed	1.5 kgs
	White Bengal Gram	500 gms
	Green gram	500 gms
	Groundnut oil cake	100 gms
	Salt	20 gms
	Carrot	1 kg
	Cabbage	250 gms
	Greens	500 gms
	Grass	20 kgs
	Green Leaves	5 kgs
Wild boar	Wheat bran	500 gms
	Boiled rice	500 gms
	Bengal gram	100 gms
	Sweet potato / Tapioca	200 gms
	Bread slices	5 Nos
	Potato	250 gms
	Banana	5 Nos
	Salt	10 gms
	Greens	100 gms
Giraffe	wheat leaf bran	3 kgs
	Crushed barley	1 kg
	Crushed oats	500 gms
	Crushed maize	750 gms
	Carrot	2 kgs
	Onion	2.5 kgs
	Banana	4.00 kgs (60 Nos.,)
	Apple	1.25 kgs (7 Nos.,)
	Orange/sathukudi	1.75 kgs (10 Nos.,)
	Guava	500 gms (4 Nos.,)
	jaggery	125 gms
	Groundnut oil cake	500 gms
	Black salt	25 gms
	Beans	2 kgs
	Mixed pulses	1 kg
	Tree leaves	25 kgs

	Greens	1 kg
BIRDS		
A) Silver Pheasant	White Bengal Gram	15 gms
B) Khalij Pheasant	Mixed Grains	25 gms
C) Golden Pheasant	Onion	25 gms
D) Lady Amherst pheasant	Greens	50 gms
	Shell grit	10 gms
	Sunflower seeds	10 gms
	Green gram	25 gms
Love Birds	Apple	30 gms
	Banana	1 No.
	Thinai	10 gms
	Mixed Grains	10 gms
	White Bengal Gram	5 gms
	Onion	10 gms
	Greens	10 gms
	Shell grit	2 gms.
A) Grey Cockatiel	Green Grams	10 gms
B) White Cockatiel	Mixed Grains	10 gms
C) Pearl Cockatiel	Thinai	10 gms
	White Bengal gram	10 gms
	Greens	10 gms
	Onion	10 gms
	Shell Grit	2 gms
Macaw	Bread slice	1 No.,
	Green banana	2 Nos.,
	White Bengal Gram	25 gms
	Apple	½ No
	Sathukudi / Orange /	
	Mango	½ No.
	Guava	1 No.
	Ground nut (w.o..s.)	50 gms
	Chilly fruit	25 gms
	Garlic	10 gms
	Cucumber	50 gms
	Greens	20 gms
A) Rose Ringed Parakeet	Bread Slice	1/2 No
B) Alexandrian Parakeet	Apple	1/4 No
C) Blossom Headed Parakeet	Sathukudi / orange /	
D) Red Breasted Parakeet	Mango	¼ No
E) Malabar Parakeet	Guava	1/2 No
	Ground nut (w.o.s)	20 gms
	Mixed Grains	10 gms
	Paddy	10 gms

	Garlic	5 gms
	Bengal gram	10 gms
	Green Gram	10 gms
	Sun flower seeds	10 gms
	Greens	10 gms
	Chilly fruit	5 gms
A) Bar headed Goose	Paddy	100 gms
B) White Goose	Wheat Bran	100 gms
C) Common Duck	White Bengal Gram	25 gms
D) Manila Duck	Carrot	25 gms
E) Grey Goose	Cabbage	25 gms
F) Shell duck		
G) Rudy Shell duck		
H) Comb duck		
I) Muscovy duck		
A) Indian Peafowl	Cabbage	25 gms
B) White Peafowl	Mixed Grains	25 gms
	Paddy	100 gms
	White Bengal Gram	50 gms
	Greens	100 gms
	Garlic	10 gms
	Ground Nut (w.o.s)	50 gms
	Shell Grit	10 gms
	Green gram	25 gms
Fan Tailed Pigeon	Mixed grains	25 gms
Basra Pigeon	White Bengal Gram	25 gms
Blue Rock Pigeon	Green gram	25 gms
Siraj Pigeon	Shell grit	1 gm
Silver Diamond Dove	Bread Slice	1 No.,
Diamond Dove	Mixed Grains	25 gms
White Dove	White Bengal Gram	20 gms
Spotted Dove	Shell Grit	1 gm
Flamingo	Thinai	150 gms
	Wheat Bran	50 gms
	Mixed Grains	50 gms
Black Swan	Cabbage	25 gms
	Wheat	50 gms
	Paddy	50 gms
	Cucumber	100 gms
	White Bengal Gram	25 gms
	Bread slice	1 No
	Carrot	25 gms
	Shell grit	5 gms
Demoiselle Crane	Mixed Grain	75 gms

	Wheat Bran	25 gms
	Shell Grit	5 gms
	Thinai	25 gms
	Fish (daily)	50 gms
A) Brahmini Kite}	Beef with bone	500 gms
B) Pariah Kite	Chick	2 nos(weekly once)
	Rat	2 nos(weekly once)
	Fish	200 gms (Tuesday)
C) Bengal Vulture	Chick	5 nos(weekly once)
	Beef with bone	1 kg
	Rat	2 nos(weekly once)
	Fish	500 gms (Tuesday)
A) Barn owl **B) Horn Owl**	Beef with bone(or)	250 gms
	Rat(100 to 150 gms)	2 nos
	Chicks	2 nos (weekly once)
WHITE BELLIED	Beef with bone	1 kg
SEA EAGLE	Fish	500 gms
A) Painted Stork **B) White Necked Stork** **C) Black Necked Stork** **D) Adjutant Stork** **E) Sarus Crane** **F)White Stork**	Fish	500 gms
HERON & EGRETS	Fish	200 gms
A) Spoon Bill **B) Cormorants** **C) White Ibis** **D) Cattle Egret** **E) Little Egret** **F) Night Heron** **G) Grey Heron** **H) Darter** **I) Pond Heron** **J) Purple Heron**		
PELICANS(Spot billed & Rosy)	Fish	1 kg
COCKATOO	Apple	½ No
	Sathukudi/ Orange Mango	1 no
	Guava	1 Nos.,
	Tomato	50 gms
	Groundnut (w.o.s)	50 gms
	Tapioca / Sweet Potato	50 gms
	Bread Slice	1 No

	Egg (Boiled)	1 No
	Green Banana	1 No
	Carrot	50 gms
	Sunflower seeds	10 gms
BUDGERIGAR	Thinai	10 gms
	Greens	10 gms
	Shell grit	2 gms
	Bengal Gram	5 gms
	Green gram	5 gms
GREY & RED JUNGLE FOWL	Mixed grains	25 gms
	Greens	25 gms
MYNA	Mixed Grains	50 gms
	Bread slices	1 no
	Greens	25 gms
	Onion	25 gms
	Shell Grit	2 gms
	Assorted Fruits	10 gms
RED BILLED BLUE MAGPIE	Boiled Rice	50 gms
	Apple	¼ no.,
	Sathukudi / Orange/mango	½ No.,
	Guava	1 no
	Bread slice	1 no
CASSOWARY/ OSTRICH	Guava	9.00 A.M
		10 nos
	Papaya	500 gms
	Rice (cooked)	11.00 A.M
		500 gms
	Milk (Boiled)	300 ml
	Tomato	250 gms
	Pine apple	500 gms
	Green banana	4.00 P.M
		5 nos
	Maize(Soaked& Boiled)	250 gms
EMU/RHEA	Green gram	9.00 A.M
		250 gms
	Wheat (Soaked)	250 gms
	Broiler Finisher(Crumble diet)	250 gms
	Rice (cooked)	11.00 A.M
		250 gms
	Milk (Boiled)	150 gms
	Tomato	100 gms
	Green banana	4.00 P.M
		2 nos
SHIKRA	Chopped Beef (Daily)	150 gms

	Rat (size-100 to 150 gms)	2 nos (weekly twice)
GREY PARTRIDGE } KOEL	Mixed Grains	50 gms
REPTILES		
Marsh Crocodile	Fish (Weekly once)	50 gms
	Beef with bone	500 gms Weekly twice
Gharial crocodile	Fish (Weekly once)	1 kg
	Beef with bone	750 gmsWeekly twice
Salt Water Crocodile	Fish (Weekly once)	1 kg
	Beef with bone	4 kgs weekly twice
Caiman	Fish (Weekly once)	250 gms
	Beef with bone	750 gms Weekly twice
Morelet crocodile	Fish (Weekly once)	250 gms
Nile Crocodile	Fish (Weekly once)	1 kgs
	Beef with bone	3 kgsWeekly twice
American Alligator	Live Chicken	2 kgs (weekly twice)
Singapore	Fish	1 Kg (Weekly once)
American Alligator	Fish (Weekly once)	1 kgs
	Beef with bone	3 kgs Weekly twice
Siamese crocodile	Fish (Weekly once)	250 gms
	Beef with bone	750 gmsWeekly twice
Python	x Chicken	1 kgs (MonthlyTwice)
	Rat(Size-150 gms)	8 Nos (MonthlyTwice)
Python Sub-adult	Chicken	1/2kgs(MonthlyTwice)
	Rat(Size-150 gms)	4 nos (Monthly Twice)
Green snake	Frog 25 to 50 gms	3 Nos (weekly Once)
	Garden lizard	3Nos (Weekly once)
	Mice	3Nos (Weekly once)
Bronze back tree snake	Garden lizard	3 Nos (Weekly once)
	Frogs & Some Insects	5 Nos (Weekly once)
	Mice	3 Nos (Weekly once)

Russel's Viper	Chicks	3 Nos (Weekly once)
	Rats 100 to 150 gms)	4 Nos (Weekly once)
Common Krait	Water snake Young ones	2 Nos (Weekly once)
	Rats(100 to 150 gms)	4 Nos (Weekly once)
Cobra	Chicks	3 Nos (Weekly once)
	Rats (100 to 150 gms)	4Nos (Weekly once)
Rat snake	Rat (100 -150 gms)	4Nos (Weekly once)
	Frogs	5 Nos (Weekly once)
Red sand Boa	Rat (10-15 gms)	4 Nos (Weekly once)
Common Sand Boa	Day old chick	1 Nos (Weekly once)
Beauty snake	Rat (10- 15 gms)	42Nos (Weekly once)
Saw Scaled Viper	Day old Mice	4 Nos (Weekly once)
	Fan throated lizard	3Nos (Weekly once)
Iguana	Carrot	50 gms
	Cabbage	50 gms
	Tomato	50 gms
	Greens	100 gms
Common Monitor Lizard	Rats	1 Nos (Weekly once)
	Chick	2 Nos (Weekly once)
	Chopped Beef	100 gms (except Tuesday)
Checkered Keel Back	Small Frogs	5 Nos (Weekly once)
Buff Striped Keel Back	Rats (10-15 gms)	4 Nos (Weekly once)
Star Tortoise **Flap shelled turtle** **Pond Terrapin** **Red eared slider**	Carrot	30 gms
	Cabbage	30 gms
	Tomato	30 gms
	Greens	50 gms
Water Monitor Lizard	Rat (10-15 gm. Size)	4 Nos (Weekly once)
	Chicks	3 Nos (Weekly once)
	Big frogs	5 Nos (Weekly once)
	Chopped beef	200 gms
Chameleon	Grasshopper	10 nos
Aquarium	Rice	1 kg/day
(For the fishes in the moat)	Ragi	1kg/ day
	Soyabex	100 gms/ day

Note:

1. Whenever salt is provided, Iodized salt should be given.
2. For all carnivores beef will is supplied for six days in a week. Tuesday will be a fasting day.
1. Composition of Mixed Grains

Paddy -20%]
Jowar-20%] supplied to birds
Cumbu-20%]
Ragi -20%]
Wheat -20%]

VACCINATION SCHEDULE OF ANIMALS

VACCINATION SCHEDULE FOR ZOO ANIMALS		
	FELIDS	
ANIMALS	VACCINES	BOOSTER
Royal Bengal Tiger (including White Tigers)	IRT, FPV,FCV,RABIES	Annual
Lion	IRT, FPV,FCV,RABIES	Annual
Leopard	IRT, FPV,FCV,RABIES	Annual
Jaguar	IRT, FPV,FCV,RABIES	Annual
	CANIDS	
ANIMALS	VACCINES	BOOSTER
Stripped hynae	DHLPPi ,RABIES	Annual
Wild dog	DHLPPi ,RABIES	Annual
Jackal	DHLPPi ,RABIES	Annual
Wolf	DHLPPi ,RABIES	Annual
	HERBIVORES	
ANIMALS	VACCINES	BOOSTER
Elephants	HS,ANTHRAX , TETANUS	Annual
Zebra	HS, TETANUS	Annual
Giraffe	HS,TETANUS	Annual
Wild ass	HS,TETANUS	Annual
Nilgai	FMD, BQ, HS	Annual, Pre Monsoon

DE-WORMING SCHEDULE OF ANIMALS

The ZVH generally follows a specific and strategic deworming Protocol. This method of deworming is based on: Type of animals and how they placed at enclosure, Environment, density, rotation schedule, housing type. Factors like Immune suppression, species variation and viability. We have an evaluation protocol based on the egg occurrences per field. The deworming schedule of animals AAZP follows.

DEWORMING SCHEDULE OF ANIMALS AAZP 2017-18													
S.NO	Species to be dewormed	2017									2018		
		Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Bears	***			***			***			***		
2	Lion (Zoo & Rescue)	***			***			***			***		

3	Panther & Jaguar			***			***			***		***
4	Tiger (Zoo& Rescue)		***			***			***			***	
5	Hippos			***			***			***			
6	Elephant			***			***			***			***
7	Indian Gaur	***			***			***			***		
8	Deer, Otter		***			***			***			***	
9	Crocodile, Tortoise			***			***			***			***
10	Monkeys	***			***			***			***		
11	Jackal, Terrestrial birds, Aquatic birds		***			***			***			***	
12	Ostrich, birds of prey		***			***			***			***	
13	Nocturnal animals	***			***			***			***		
14	Snakes	***			***			***			***		
15	Wild dog	***			***			***			***		
16	Wild boar	***			***			***			***		
17	Wild ass		***			***			***			***	
18	Zebra, Giraffe	***			***			***			***		
19	Hyena			***			***			***			***

DISINFECTION SCHEDULE

WEEKLY SCHEDULE

- Regular Preventive disinfection (Kohrsolin)
- Specific disinfection for Bactericidal and Fungal, Vaccination Covered virus, Vaccination Uncovered virus, For Tuberculosis, In house spray Proper cleaning of exhibits/ housing areas
- Cleaning of feed/ water troughs
- Application of turmeric powder inside (floor and walls) and around enclosures.
- Providing adequate disinfection with 1% Potassium permanganate both as dips and rinses.
- Removal of left over feed in the exhibit
- Disinfection of Vehicles that used inside the zoo, especially vehicles having everyday access to the feed store (feed / beef/ fish supply vehicle/ tractors)
- Cleaning and disinfection of equipments with 1% Potassium permanganate before and after use.
- Rodent control by proofing, / physical barriers

MONTHLY SCHEDULE

- For specific disinfection
- Spraying of Butox / Clinar inside enclosures
- Applying calcium carbonate during onset of rainy seasons at the enclosures (mud / swampy) as a disinfection protocol

QUATERLY SCHEDULE

- Clearing of weeds / vegetation
- Scraping of top soil substrate.
- Testing the pH of the water in avian enclosures (marine) recycling/ refilling if found acidic.

ANNUAL SCHEDULE

- Fumigation
- White washing
- Painting
- Change of sand/ Fumigation of old sand substrate

HEALTH CHECK-UP OF EMPLOYEES FOR ZOONOTIC DISEASES

S.No.	Name	Designation	Date of Health Check up	Findings of Health Check up
1	General health check up	Animal Keepers	08/03/2018	No specific findings
2	Dental and Eye Check up	Animal Keepers	29/3/2018	No specific findings

DEVELOPMENT WORKS CARRIED OUT IN THE ZOO

S.No	Name of the works
1	Renovation of Conference hall and furnishing Director's chamber
2	Fixing wall projector and public addressing system in the conference hall

3	Strengthening chain link fence in tiger house in paddock area
4	Removal of damaged paver block flooring and relaying in Lion ,Turtle ,Tiger, Nonvenomous snakes, Elephant enclosure area etc.,
5	Providing stainless steel door and gate in Hippopotamus ,Chimpanzee night shelter
6	Providing 25W solar street lights
7	Repairing and renovation of retaining walls and chain links
8	Reconstruction of collapsed peripheral compound wall
9	Reconstruction of cyclone damaged Nilgiri langur moat wall
10	Repair and replacement damaged toilet blocks
11	Strengthening moat wall of Marsh crocodile enclosure
12	Restoration of damaged flightless birds enclosure
13	Renovation and improvement of Squirrel house
14	Supply ,fabrication and erection of safety cage at Tiger ,Panther houses
15	Heightening of barricade in front of Chimpanzee enclosure
16	Covering bamboo poles at the barricades in front of deer enclosures
17	Repair and renovation of post mortem room at Veterinary hospital
18	Conversion and modification of European brown bear enclosure in to Tiger enclosure
19	Construction of additional enclosure for Ostrich
20	Construction of additional animal house and Kraal for Wild Ass
21	Relaying of chain link fencing coverage for aquatic birds enclosure
22	Repair and renovation of Turtle houses
22	Establishment of CCTV surveillance system
23	Purchase of six new battery operated vehicles
24	Introduction of live streaming facility through zoo website
25	Launching Mobile App and e- Ticketing

EDUCATION AND AWARENESS PROGRAMMES

A notable achievement of the zoo was the formation of the Zoo school. It aims at running Zoo education awareness classes on regular basis for students. The response from schools has been encouraging. During the year 2017-2018 the park has conducted - Zoo outreach programmes for four schools in which 435 students have participated. The park has conducted

105 Zoo school programme in which 14231 Students have participated. The zoo school programmes are now attracting several schools, which wish to enroll for the programme on regular basis.

The zoo club was started in 19.09.1998 with the objective of encouraging voluntaries service for the improvement and development of zoo. The volunteers from Madras Christian College, Tagore Engineering College, Vivekananda college had participated and were assigned the work of screening plastic from the visitors, educating and guiding the public, prevention of teasing and feeding the animals. The programme received overwhelming support from the student community. The zoo volunteers did a commendable WORK in managing the crowd during the Kannum Pongal in January 2018.

CELEBRATION OF IMPORTANT DAYS

WILDLIFE WEEK

WORLD WILDLIFE DAY – THEME "BIG CATS"

INTERNATIONAL FOREST DAY

International Forest Day (March 21) was celebrated at Arignar Anna Zoological Park in collaboration with National Law School of India University, Bengaluru. Various competitions were conducted and nearly 170 students participated.

IMPORTANT EVENTS & HAPPENINGS

VISIT OF HON'BLE CHIEF MINISTER TO THE ZOO

Hon'ble Chief Minister of Tamil Nadu had visited the Arignar Anna Zoological Park, Vandalur on 30.8.2018 and he planted a seedling in the zoo premises to commomerate the centenary year celebration of Dr.M.G.Ramachandran. Hon'ble Forest Minister of Tamil Nadu, along with other Ministers, PCCF, APCCF, District Collector and Deputy Director were also present.

NAMING OF LION CUB BY HON'BLE CHIEF MINISTER

Hon'ble Chief Minister of Tamil Nadu has visited the Arignar Anna Zoological Park, Vandalur on 12.10.2018 and named a lion cub. He named the Lion cub as 'Vishnu'. Hon'ble Chief Minister of Tamil Nadu, along with Minister of Forest and other Ministers graced the ceremony. Chief Secretary, Principal Secretary (E&F) & PCCFs were also present.

VISIT OF VIPS DURING 2017-18

Hon'ble Minister of Forest, Assam visited AAZP in November 2018

Member Secretary, Zoo Authority of Karnataka visited the zoo

AWARDS AND RECOGNITIONS

AAZP was awarded as "Best Zoo" by Tourism department

Animal Keepers Mrs.Devaki and Mrs.Nagammal were awarded the prestigious "Women Achievrs Award" for their long and dedicated service to the animals, by the South Indian Popular media channel "Vikatan"

SEASONAL SPECIAL ARRANGEMENTS FOR ANIMALS

Usually the animals are under severe stress during summer. In order to improve the comfort level, heat relief measures were undertaken during last year:

- All deer enclosures were provided with new thatched sheds.
- All elephants in the zoo were given shower and allowed to wallow twice every day to provide relief from heat.
- Sprinkling of water was arranged in enclosures housing ostrich, terrestrial birds, zebra and giraffe and also in the walk through aviary for birds.
- Serpentarium was provided with mud mounds and mud pots in multiple tiers to ensure differential temperature for facilitating their different physiological functions.
- Snakes require variable temperatures for digestion, moulting and reproduction.
- Special dietary arrangements were made for primates, bears, elephants and birds to keep them at ease.
- Shade nets cutting off sunlight are provided at aviaries, ostrich and white tiger enclosures.
- Fluid supplements are also provided if there are any requirements.

SPECIES	SPECIAL ARRANGEMENTS FOR SUMMER
Big Cats	Meat frozen in ice (¼ th of normal feed), Swimming pond, Shade nets, Shade by Vegetation - Thatched
Small Herbivores	Frequent filling of Waterers, Extra thatched shaded area
Wild Ass, Giraffe & Zebra	Water sprinklers
Birds	Partial covering of enclosures with gunny bag and sprinkling of water
Bears	Fruits frozen in ice, Tender Coconut
Primates	Watermelon and musk melons
Chimpanzees	Fruits frozen in ice
Elephants	Compulsory daily bath

ELEPHANT REJUVENATION CAMP

Elephants are one of the most intelligent animals and they use their touch, sight, smell and sound to communicate within themselves. To breakdown the routine practices and to cater to minute behavioral needs, our zoo conducts an annual rejuvenation camp for a period of 48 days. Our zoo houses 4 elephants; all these mega herbivores were hand reared.

During the camp enriched feed, feed supplements, medicated baths and wallowing pools are provided to the elephants to enhance central and peripheral instinct orientations. These camps are aimed at providing cognition, self-analysis in new environment and a comprehensive problem solving capacity. This camp was conducted for the four elephants housed in the elephant enclosure during the Month of March 2018.

RESEARCH WORK CARRIED OUT AND PUBLICATIONS

RESEARCH PROJECTS

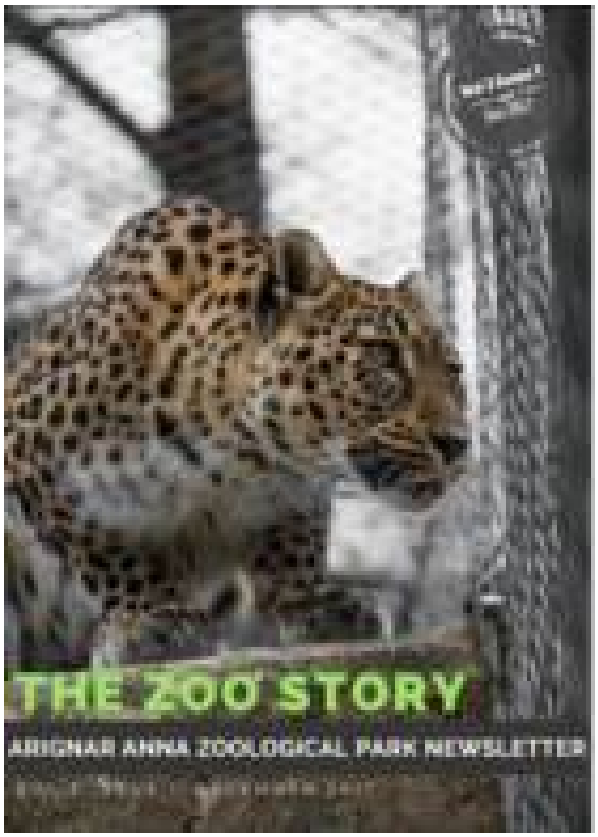
S.No	Name	Name of College/ University	Title/Project	Duration
1	Dr. M.Nagarajan, Asst.Professor	Department of Genomic Science, Central University Kerala	Analysis of dung samples from Indian Gaur in AAZP	14.02.2017
2	Dr.Deeptimayee Pattnayak Mvsc	Department of WildLife Science, Madras Veterinary College, Chennai-7	Molecular species identification of captive snakes using Ecdysed Skin in AAZP for 3 months	23.02.2018
3	Dr.T.Rajagopal Asst.Professor	Department of Zoology, Thiyagarajan College, Madurai.	Social and Reprductive behaviours of Indian Bison (Bos gaurur gaur) in AAZP, I year	24.03.2018 to Dec-2018
5	Dr.Syed Riaz Ahamed	Animal Welfare Officer, Govt. of India	Project of Environment and Forest Conservation of AAZP	20.03.2017 to 20.06.2017
6	Dr.Matt Hartcy Lecturer	Animal Biology University of Chester, Chester	Study on Assessing the Welfare of *(Macaca silenus*) through a comparative analysis of Zoo enclusers at Chennai Zoo and Chester Zoo	25.09.2017 to 11.09.2017
7	MVSc Students	Presents and also collect fresh facael samples faecal swabs in Children Park	Study on Parastic Fauna and Enteropathogens in captive pheasants and also collect fresh faecal samples /faecal swabs in Childrens'Park ,Guindy	May-2017 to July-2017

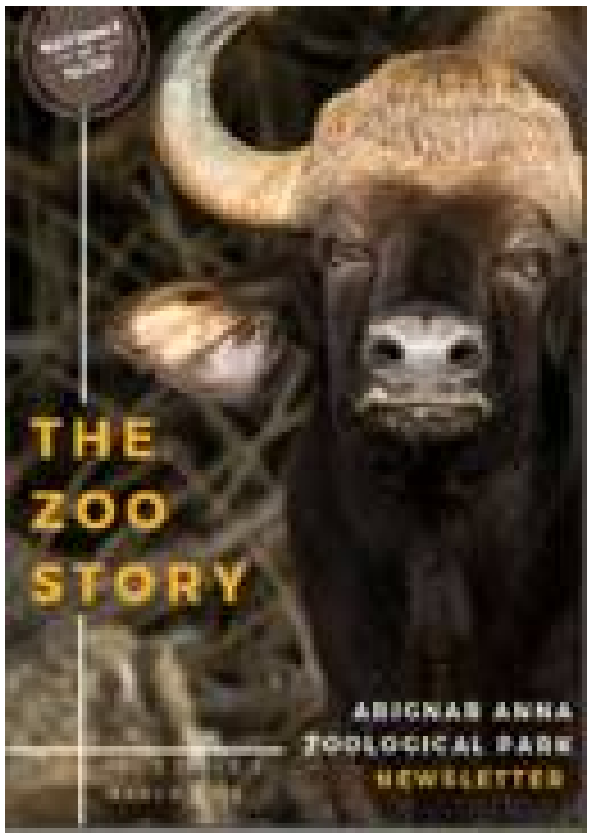
INTERNSHIP TRAINING - COLLEGE STUDENTS

S.No	Name	Name of College/ University	Title/Project	Duration
1	Students of Forest College Research Institute	TNAU - Mettupalayam.	Forest Work Experience, 38 Students	27.11.2017 to 06.12.2017
2	Selvi.Srividya	University of Madras,IIIrd year BSc Visual Communication	Shoot a documentary film in Vandalur Zoo	3rd week Nov of -2017
4	MVC/BVSc students	Madras veterinary College, Madras.	Intership training programme for UG students- 242 students	May-2017 to October-2017
5	MVSc,. Students	Madras Veterinary College, Intership Programme	Clinical training on Aves and Reptails-7 students	April-2017 to July-2017
6	MVSc Students	Madras Veterinary College, Intership Programme	Study on Parastic Fauna and Enteropathogens in captive pheasants and also collect fresh faecal samples/faecal swabs in Children's Park, Guindy	May-2017 to July-2017

PUBLICATIONS

NEWSLETTERS PUBLISHED BY THE ZOO





NEW WEBSITE WAS LAUNCHED

CONSERVATION BREEDING PROGRAMME OF THE ZOO

Arignar Anna Zoological Park, Vandalur is majorly focusing on the conse3rvation breeding of the following animals,

LION TAILED MACAQUE

Lion tailed macaque is one of the most critically endangered species indigenous to the tropical rain forests of the Western Ghats in South West India. The maintenance of Viable population of endangered species representing their genetic viability in the wild is a major goal of the Zoological Park. In order to safe guard this species Arignar Anna Zoological Park, submitted a project on conservation breeding programme for LTM in collaboration with SACON, WII and other South Indian zoos Viz., Mysore zoo and Trivandrum zoo to the Central Zoo Authority for funding the project. The proposal envisaged establishment of five social groups in 3 zoos, designing of appropriate enclosure and monitoring social behavioral and reproductive health of the group and training of zoo personal. The project has been approved by the Central Zoo Authority. Two off exhibit water moated enclosures have been built for Lion tailed macaque away from the visitor area to promote natural behavior and fit for reintroduction programme.

NILGRI LANGUR

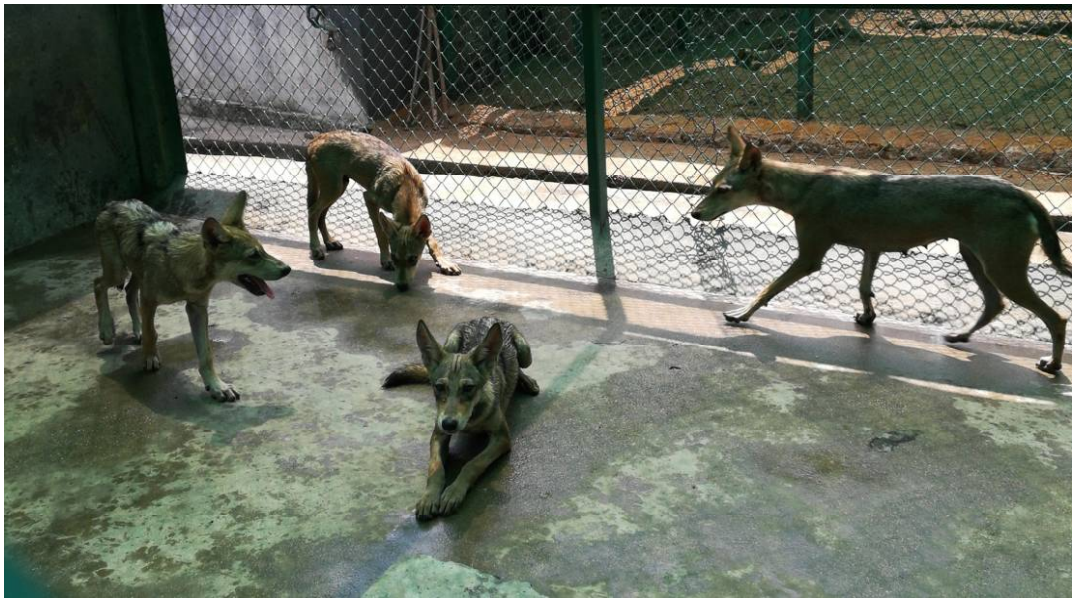
This species has also been designated to Arignar Anna Zoological Park as species coordinator. It is the only zoo where regular breeding is ensured.

CAPTIVE BREEDING

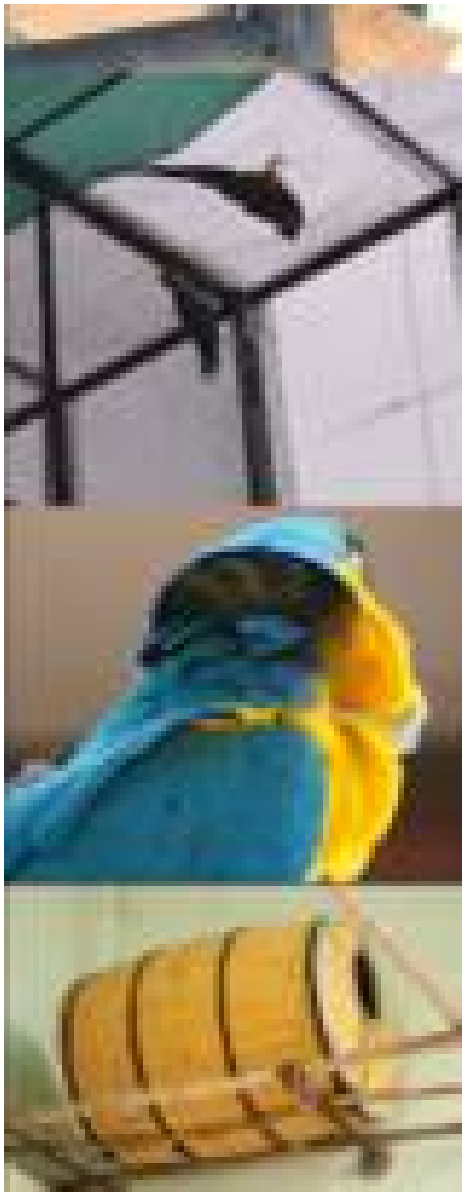
AAZP creates and maintains consistent conditions for appropriate breeding, reproductive behavior and normal development of young ones.

RECORDICAL BREEDING OF INDIAN GREY WOLF AT AAZP

There was no record of breeding of Grey wolf in Arignar Anna Zoological Park, Vandalur so far. But, the continuous efforts ended in the birth of 5 pups recently. On 17th October, 2014, a male wolf aged three was received from Sri Chamarajendra Zoological Garden, Mysore and later, another male aged 6 months was received on 1st July 2016 from the same zoo. They were named Vasanthan and Varadhan. Shortly, two female wolves were received from Udaipur Zoo on 23.09.2016 in exchange of a male white tiger. They were named Geerthi and Arthi. Their ages were 9 months and 4 years respectively. The two different origin male and females were kept aside and their compatibility was studied for pair formation. The Vasanthan and Geerthi young male and female accepted each other followed by Varadhan and Arthi. Slowly, they developed an attraction and they copulated in the same way as wild dog and domestic dogs. The female showed progressive abdominal bulging which confirmed its pregnancy. The female was isolated from the male. A whelping den size of 3.0 X3.0 feet was made with top closed. CCTV camera was fixed two weeks prior to whelping. On 6th December 2017 by 11.30 AM the keeper monitored some movement in the den and confirmed the pups' movement. Then it was confirmed 5 pups of which 4 males and one female subsequently. The mother kept the young inside the den most of the time until they were 45 days old, though they would occasionally come out at night either with mother or alone. They started licking beef on 45th day. The present observation revealed that the captive born male and female exhibited sexual maturity at the age less than two respectively in captivity.



BLUE & YELLOW MACAW



This is the first record of AAZP, the most popular exotic bird - Blue & Yellow Macaw breeded successfully. The private sellers use well sophisticated and more expensive ways to breed this bird. But in AAZP, suitable environment and continuous monitoring, led to successful breeding of this bird.

Blue & Yellow Macaw is an excellent pet that become very attached and loving towards their care takers. The main attraction is their beautiful and exotic looks as well as their affectionate and playful activities. These birds require a large space in captivity condition. If proper enrichment is not provided, the birds turn into screamers, feather pluckers and bitters, resulting in difficult captive breeding. Usually the bird makes loud noise if alarmed or excited. But AAZP provided a soothing environment to these birds. Daily bathing facilities were provided to prevent itches that may result in feather plucking and self-mutilation. Like all other macaws, blue and yellow macaw has habit to chew continuously. This is the most common and natural behavior in this species. This natural behavior of the bird was not disturbed and further the enclosure was also planted with self-medicated plant species. Whenever they chew these plant products, they have some medicinal effect on the birds. Tulsi, Karpporavalli, Amaranthus, Ficus spp, Moringa tinctoria, Thinneerpathini, Vallarai, Papaya, Vasambu, Neer Pirambi, Guava, etc…, were planted and maintained well in the enclosure.

In addition to these, AAZP also gives variety of diet that includes fresh fruits, vegetables, green leaves and a quantity of dry food mix to these birds. The bird enclosure measures 144m3 space (6m×6m×4m). The enclosure was built in such a manner that it was half-covered with concrete structures and half with 1” ×1” chain link. This gives protection during summer, winter and rainy season. The half chain link portion gives suitable enrichment for birds for hanging freely in roof portion.

In 2015, AAZP had only 4 adult blue and yellow macaw birds. Two eggs were recorded on 20.02.2017 but these eggs did not hatch successfully. With continuous efforts on enrichment and bird’s diet, it was observed on May 30,2017, a pair of eggs was newly laid. After 28 days they hatched successfully. At present AAZP has 3 pair of blue and yellow macaw in captivity.

ACCOUNT OF CAPTIVE BREEDING AT AAZP - 2017-18

Nilgiri langur	2
Lion tailed macaque	2
Indian gaur	2
Rhesus macaque	4
Hippopotamus	1
Indian gaur	3
Wild boar	4
Indian wolf	5
Jungle cat	3
Lion	1
Swamp deer	1
Alexandrian parakeet	14
Painted stork	20
Budgerigars	8
Grey heron	20
Blue and yellow macaw	2
Ostrich	6
Night heron	50
Little Egret	30
Painted stork	10

ANIMAL ACQUISITION / TRANSFER / EXCHANGE

The Arignar Anna Zoological Park, Vandalur has a detailed animal collection plan which was developed even at the time of its foundation. The Zoo has done well in having viable collections of endemic and the endangered species representing India and other countries. This was majorly possible by means of exchange programmes. The Arignar Anna Zoological Park has the distinction of one of the largest animal as well as species collections in the country. The important criterion for any successful exchange programme is that not only the behavioral compatibility of the animal to the new environment is required but the animal should also be able to breed well in the new environment. Inbreeding among zoo population is an important problem, which results in depression of genetic vigor. Hence new blood lines are required to be regularly introduced to maintain the genetic vigor of the important species. Animal exchange is a standard practice wherein the surplus and single sexed animals are being exchanged between the zoos to balance their sex ratios as well as to sustain the population in the Zoo. Considering the above, the animal exchange programmes were carried out at Arignar Anna Zoological Park with

- Mysore Zoo,
- Nandankanan Zoo,
- Hyderabad Zoo

MYSORE ZOO

- *Wild dog*
- *Brow antlered deer*
- *Lady Amherst pheasant*
- *Nilgai*

(+)

(-)
- *Lion tailed macaque*
- *Sambar*

NANDANKANNAN ZOO

- *Himalayan black bear*
- *White ibis*
- *Water monitor lizard*
- *Open billed stork*
- *Siamese crocodile*

(+)

(-)
- *Nilgiri langur*
- *White peafowl*
- *Painted stork*
- *Reticulated Python*

HYDERABAD ZOO

- *Lion tailed macaque*
- *Reticulated Python*

(+)

(-)
- *Mouse deer*
- *Jungle cat*

ANIMAL ACQUISITION THROUGH EXCHANGE

MAMMALS

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Indian giant squirrel	*Ratufa indica*	01.04.2017	0:1	Confiscated
2	Small Indian civet cat	Viverricula indica	05.04.2017	1:0	Rescued
3	Slender Loris	*Loris tardigradus*	20.0.2017	1:0	Confiscated
4	Brow antlered deer	*Ruservus eldi*	16.06.2017	1:1	Sri Chamarajendra Zoological Garden, Mysuru
5	Nilgai	*Boselaphus tragocamelus*	16.06.2017	0:1	Sri Chamarajendra Zoological Garden, Mysuru
6	Wild dog	*Cuon alpinus*	16.06.2017	1:1	Sri Chamarajendra Zoological Garden, Mysuru
7	Mouse deer	*Moschiola indica*	21.07.2017	2:3	Nehru Zoological Park, Hyderabad
8	Jungle cat	*Felis chaus*	21.07.2017	1:1	Nehru Zoological Park, Hyderabad
9	Himalayan black bear	*Selenarctos thibetanus*	24.09.2017	1:1	Nandankanan Zological Park, Odisha

BIRDS

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Lady Amherst pheasant	*Chrysolophus amherstiae*	16.06.2017	1:1	Sri Chamarajendra Zoological Garden, Mysuru
2	Roseringed parakeet	*Psittacula grameri*	22.05.2017	0:0:2 2	Confiscated
3	Open bill stork	*Anastomose oscitans*	24.09.2017	2:2	Nandankanan Zoological Park, Odisha
4	White ibis	*Threskiornis aethiopica*	24.09.2017	0:0:1 0	Nandankanan Zoological Park, Odisha

REPTILES

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Water monitor lizard	*Varanus salvator*	24.09.2017	1:1	Nandankanan Zoological Park ,Odisa
2	Siamese crocodile	*Crocodylus siamensis*	24.09.2017	1:0	Nandankanan Zoological Park, Odisa

ANIMAL DISPOSAL THROUGH EXCHANGE

MAMMALS

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Lion tailed macaque	*macaca silenus*	17.06.2017	1:1	Sri Chamarajendra Zoological Garden, Mysuru
2	Sambar	*Rusa unicolor*	17.06.2017	0:1	Sri Chamarajendra Zoological Garden, Mysuru
3	Lion tailed macaque	*Macaca silenus*	22.07.2017	1:0	Nehru Zoological Park, Hyderabad
4	Nilgiri langur	*Trachypithecus johni*	24.09.2017	1:1	Nandankanan Zoological Park, Odisha

BIRDS

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Painted stork	*Mycteria leucocephala*	24.09.2017	0:0:10	Nandankanan Zoological Park,Odisha
2	White peafowl	*Pavo cristatus*	24.09.2017	2:2	Nandankanan Zoological Park, Odisha

REPTILES

S. No	Name of the species	Scientific Name	Date	Sex	Place
1	Reticulated Python	Python reticulatus	22.07.2017	1:1	Nehru Zoological Park, Hyderabad
2	Reticulated Python	Python reticulatus	24.09.2017	1:1	Nandankanan Zoological Park, Odisha

RESCUE AND REHABILITATION OF WILD ANIMALS CARRIED OUT BY THE ZOO

REHABILITATION OF CONFISCATED STAR TORTOISES

Star tortoises are threatened species of tortoise that are found in dry scrub areas in the Indian sub-continent. This species is quite popular in exotic pet trade that makes it endangered. A total of 2515 tortoises were brought to the Zoo Veterinary Hospital (ZVH) in-patient ward at the early morning of 22/08/2017. Immediately the tortoises were housed in the cages according to their sizes in the ZVH. Later in the morning the animals were segregated, identified and were sexed, and it was found to be Adult male-123, adult female-320, medium juveniles-192 and small juveniles-1861. Biometrics and temporary marking were done for easy management. Initial first aid and rehydration was carried out. On August 23rd, the entire lot was transferred to the ZVH transit cages. Endo-parasitic screening from stratified groups was done. The new outdoor enclosure was evaluated; the enclosure confounding factors were regulated.

On August 24th the lighting, both artificial and natural were regulated using shade-nets, as natural lighting is pivotal for the production of vitamin D in tortoises and it also has the advantage of providing heat. It is also considered that natural lighting is a potent appetite stimulant for reptiles. Water was made available at all times with well spread ventilated conditions. Definite cutaneous and respiratory losses must be compensated and are very essential for captive reptile husbandry. Small trays of various sizes were place in the enclosure at appropriate places. These species being terrestrial and arid dwellers usually drink water from crates, there is also an observed phenomenon of nearly facilitates defecation and encourages activity and alertness.

Feeding, the nutrition of captive tortoises is the limiting factor for the survivability of the animals. These species being herbivores, the diet chart from the pre-existing feeding schedule of the captive star tortoises of AAZP was taken as the pioneer reference in feeding these animals. The feed chart as follows, carrot (30gms), ladies finger (30gms), tomato (30gms), and greens (50gms). In addition to this, based on the availability cactus was fed during the morning hours. The calcium to phosphorus ratio is regulatory to reptiles, based on the calcium content and the fleshy nature ladyfinger was included into the diet. The enrichment works were carried out in the enclosures, shredded deer antlers were used as nutritional and behavioral enrichment. As seen from the Mortality chart the death rate slowly reduced and it zeroed out from 28.08.17, providing valuable proof the animals have adapted to living conditions and that the feed, water and husbandry management have been at ideal state. Further, DNA analysis and tracing of geographical origin has initiated. Now this stabilized population is being fed with naturally available herbages like Tridex (kinathu paasan), cactus, hibiscus, Ipomea, Adamant creeper (Pirandai) The meteorological parameters such as Cloud cover, Rainfall, Wind direction, Temperature, Relative Humidity are being recorded on a weekly basis to validate the environmental confounding factors from the TNAU weather portal unit. DNA samples were send to CCMB for analysis.

SUCCESSFUL MANAGEMENT OF ELECTROCUTION IN A BONNET MACAQUE: A REPORT ON RESCUE AND REHABILITATION

Electric shock, also referred as electrocution may be accidental and are most commonly found to occur in primates, especially in the urban areas, because of increased exposure to the source electricity like fallen transmission cables, broken electrical circuits and also due to urbanization. Bonnet macaque belongs to group of Old World monkeys of subfamily Cercopithecinae are diurnal animals, which are endemic in south India. Being arboreal in nature, Bonnet macaques are vulnerable for electrocution from high-voltage industrial supply as well as low-tension domestic wires. They move as troops into human dwellings in search of food, owing to its easy availability. ‘Stray voltage’ refers to unintended electrical potentials between contact points that may be encountered by humans or animals.

Accidental electrocution can result when stray voltages exceed a safe threshold voltage level. Mild electrocutions could lead to necrosis of superficial or deep tissue, whereas high-voltage current produces more heat than low-voltage current and can cause burns, coagulation, and necrosis of affected body parts. Severe electric shock commonly causes unconsciousness, respiratory paralysis, muscle contractions, bone fractures, and cardiac disorders. Even passage of small electric currents through the heart can cause fibrillation. The present report is successful management of electrocution in a bonnet macaque. A bonnet macaque of approximately 4 years of age, weighing 14.3kg was presented to the Veterinary Hospital of Arignar Anna Zoological Park with the history of electrocution and wound observed on right palm and left leg. The animal was recumbent, but palpebral and pedal refluxes were present. Upon clinical examination all the vital parameters were found to be within normal limits, but skin turgor test revealed a dehydration of 5 per cent. Singeing was noticed in right pes and manus region and a striking finding was the penis being everted.

The vital parameters were recorded the rectal temperature, heart rate and respiratory rate were 39.2 C, 120 per min and 72 per min, respectively. The mucous membranes were pale and the respiratory pattern was irregular and shallow. The ECG revealed sinus tachycardia, arrhythmias. Fluid therapy was administered comprising of colloids and crystalloids. The wounded areas were flushed with chlorhexidine. Silver nitrate ointment was applied on the wounds. The animal was moved to the in-patient ward for further observation. The antibiotics were administered using blow darts. A special energy rich diet comprising of fruits, apples, oranges were given, however the complete appetite was restored only after three days. Additional feed supplements were given. The animal showed signs of recovery and started to move around and climb the cages, normal appendicular movement was restored on the fifth day of post treatment.

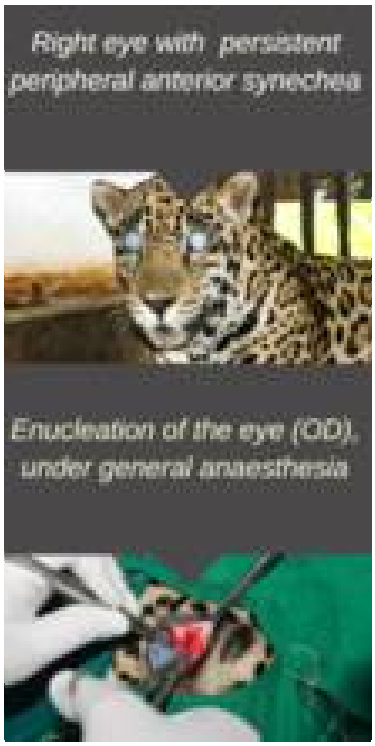
TREATMENT RECORD - RESCUE AND INPATIENT

S.No	Month	Mammal	Bird	Reptile
1	Apr-17	5	53	0
2	May-17	6	6	0
3	Jun-17	4	27	0
4	Jul-17	1	12	0
5	Aug-17	4	1	2515
6	Sep-17	2	9	0
7	Oct-17	0	2	0
8	Nov-17	0	9	0
9	Dec-17	2	88	0
10	Jan-18	1	13	1
11	Feb-18	2	26	0
12	Mar-18	1	10	1
	Total	**28**	**256**	**2517**

Extremely sick animals, orphan and neonatal animals are taken into in-patient animal ward. These animals are attended throughout the day, their treatment, feeding and nutrition is taken care at zoo veterinary hospital. After the completion of treatment protocols and when the animal is fit to be released, they are sent back to their respective enclosures. Rescued animals from regions around the zoo come to the Zoo Veterinary Hospital for emergency treatments. Those animals are taken into in-patient ward for further treatment after obtaining proper receipts, letters from concerned ranges about the site and time of rescue, animal's condition during the rescue operation. Rescued animals mainly come from Guindy national park, Tambaram range, Chengalpet range, Sriperumbudur range. The commonly rescued animals are bonnet macaques, spotted deers, black bucks, parakeets. After successful recovery from the ailment these animals are handed over back to the respective ranges from where they were received. Confiscated animals from the Headquarters, wildlife crime control bureau is received from and maintained in the transit animal facilities till further direction for rehabilitation of those animals. Around 2700 rescued and confiscated animals were received from other outside ranges and other agencies.

TREATMENT OF ZOO ANIMALS

TREATMENT OF GLAUCOMA IN JAGUAR



Vicky, a 9-year-old male Jaguar (Panthera onca) was affected with bilateral glaucoma, severe on right eye (OD) with persistent peripheral anterior synchea. Glaucoma a condition where there will be a high increase in the intra-ocular pressure of eye. Complete loss of vision on right eye was diagnosed based on the behavioural changes of the animal.

Animal was darted with xylazine and ketamine using a blow pipe and maintained under ketamine-diazepam intravenous anaesthesia. Enucleation of the right eyeball was performed after retrobulbar nerve block. Induction and recovery was smooth. Animal recovered uneventfully on 14th post-operative day.

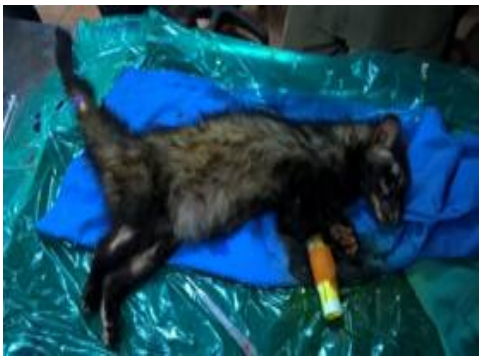
DIGIT AMPUTATION IN LIONESS

Sasi, an 8-year-old Lioness had a deep lacerated wound on 4th digit with dislocation at 2nd phalangeal joint in left forelimb. Soon, under general anaesthesia, the forth digit was amputated at the level of second phalanx and skin was opposed by intra-dermal suturing with absorbable suture material so as to reduce the chances of the animal to disturb the sutures. The Lioness recovered uneventfully after 18 days of the procedure with normal weight bearing on the affected limb.

TREATING THE INFIGHTING WOUNDS IN CROCODILE

A five year old, male Siamese crocodile of 12 feet length, was a new entry to Arignar Anna Zoological Park, who escaped through the partition and fought with the already existing two female Siamese crocodile and had deep lacerated injuries all over body. On observation, it was found that the victim was anorectic and reduced locomotion.The wound was flushed and dressed with antibiotic cream by an innovative pole brush technique followed by administration of antibiotics, analgesics and supplements. One of the female crocodile which was found to be attacking the male crocodile, was translocated to a different enclosure by physical capture and restraint safely. After ten days of treatment, the mobility improved and after 28 days, all the wounds were found to be healed well and animal started consuming feed.

SURGICAL MANAGEMENT OF A SELF- MUTILATED, NECROTIZING WOUND IN AN ASIAN PALM CIVET



An Asian Palm Civet male 6 yrs of age weighing 2.7 Kg was presented to the Zoo Veterinary Hospital, Arignar Anna Zoological Park, Vandaloor, with a history of anorexia for four days. Subjective examination revealed an injured second and third digit of the right forelimb. The animal was weighed and immobilized using a combination of Xylazine and Ketamine. Ataxia was noticed at 2.33 mins and recumbency at 3.54 mins. The wound was examined and found to be infected and necrotic. Decision to amputate the infected digits was taken. The infected digits were amputated and removed using Electro-thermo cautery. The second and third digits were amputated and an additional margin of 0.3cm of tissue was also removed. The wound was bandaged and a PVC pipe was fixed to avoid any self-mutilations. The critical factor was to gain vascular access as seen, which is common for wild felids.

A common problem is that in captivity there is an excess accumulation of subcutaneous fat which makes it difficult to gain vascular access, but the coccygeal vein was easily accessible in this case. The reversal was given, and the animal was transferred to the inpatient ward for further monitoring. The animal recovered uneventfully.

TREATMENT MODULE FOR REPTILE WOUND MANAGEMENT

(FISH COLLAGEN AND POLYMER SHIELD FOR DEEP LACERATED WOUND IN RETICULATED PYTHON)

A 5 year old reticulated male python was found with deep lacerated wound with loss of tissue in dorsal and ventro-lateral aspect of mid-abdominal region as result of infighting with his sibling. Soon it was brought to the notice of veterinarians and wound was flushed with 1% povidone Iodine in normal saline. As the tissue loss is wide, it is not suitable to just oppose and suture, which may constrict coelomic cavity and hinder feed intake or eventually it will result in

suture dehiscence. So it was decided to treat the wound for healing by second intention. After dressing the wound with antibiotic ointments, a protective
gauze bandage was applied in order to reduce the wound contamination with litter material. Parenteral Non-Steroidal Anti-inflammatory and long-acting antibiotics were given. But the bandage couldn't withstand muscular contraction and their locomotive undulations for not even more than 12 hours. Open exposure of the wound to the environmental contaminants drastically affected the wound healing. So an approach to hasten the healing process without changing the environment was thought as changing the environment will lead to stress which in turn will affect the healing drastically. An ideal and innovative technique was designed using type IV Fish collagen on the wound after flushing and air drying, which was covered with an adherent layer of chlorhexidine polymer. This combo not only hastened the wound healing due to Collagen but also served as a protective covering from environmental contaminants with advantage of prolonged antiseptics action by controlled drug releasing system. The affected Python started feeding 14 days after the treatment and wound completely healed 40th day.

SURGICAL INTERVENTION AND POST OPERATIVE CARE

Most of the surgeries in primates are an emergency condition and the Zoo Hospital has been provided with facilities to immediately cater to the needs arising. A lion tailed macaque receiving post operative care and therapy.

Cervids are one of the challenging species to handle, due to their timid and high excitable nature The ZVH has standard protocols to anaesthetize cervids like spotted, sambar, Swamp, Barking black bucks. A sambar deer being handled at our facility. The entire procedure is monitored by three attending Veterinarians and one anesthetist. The recovery phase is very critical and this includes critical care and assessment. Fluid therapy and blood screening done during the procedure gives a fair idea of the animal's heath condition immediately.

Reptiles are common patients to the ZVH. Reptiles are with varied biology and they should be handled with care. The basic requirements for captive reptiles are based on their basic needs in nature. The procedure starts with biometrics, measuring and weight estimation. Every reptile patient is micro chipped and probe sexed (sex identification) for future identification and record maintenance. A reticulated python going through preliminary health checkup and monitoring.

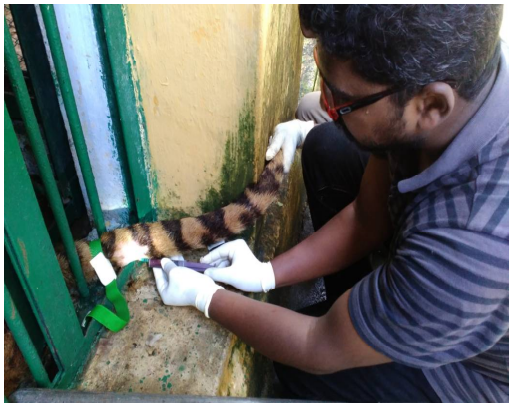
MEDICAL MANAGEMENT OF A WOUND IN A LION TAILED MACAQUE

Hierarchy establishments are usually noticed in primates. Grouped (trooped) Social systems are always in equilibrium in a well-knit primate society. Many social species of primate's form stable groups where membership is evidently consistent but over time. This social stability can be advantageous because it allows increased predictability in social interactions, improved behavioral coordination, and role partitioning. But this equilibrium is altered when a sub-dominant male challenges the existing alpha to become the next successor of the troop. In this case a sub-adult male Lion Tailed Macaque was injured in one such "arena" behaviors with the alpha. The wound occurrences in males were due to the head to head in fights. It was essential to record that they used their canines during male-male interactions, whereas incisors were used during male-female interactions. Wounds on the fore limbs may be because of the defensive use. Treatment and management of wound in primates is very difficult owing to their tool handling capacities probably pulling out sutures, constantly disturb the wound affecting granulation and healing leading to self- mutilation and secondary contamination. In addition, maintaining bandages in these animals especially at limbs are impossible. The animal was immediately separated from the troop and the wound was cleaned and flushed. X-ray examination ruled out the involvement of fracture. A decision to treat the laceration as an open wound was taken. The use of gelatin and with a collagen over shield was done. Collagen stimulates new tissue growth and encourages the deposition and organization of newly formed collagen fibers and granulation tissue in the wound bed. Antibiotic course and analgesics were given. The animal showed successful grasping and brachiating reflexes.

Haematological and biochemical studies are important tools for health evaluation and their interpretation signifies the physiological function of the organs. The concentration of biochemical constituents in tissue as well as in body fluids is fixed and during adverse conditions it might be elevated or decreased. Viral, Bacterial and parasitic diseases are very common in tigers which can affect the haematological and biochemical normal values. Hematology was an important tool for assessing physiological status of individuals and often provided the first and only indicator of diseases. The blood samples were collected by physical restraint of animal in the squeeze cage. The use of squeeze cages for blood sampling proved to be a very safe for the animal as well as the veterinarian associated with the collection of blood samples from captive tigers. Additionally, this method does not warrant the use of any immobilization protocol, thus proving to be a less hazardous technique.

PROPHYLAXIS

The overall health management of the zoo is based on the principle "*Prevention is better than cure*". The vaccination regime various according the species concerned and the geographical location with endemic disease prevalence. Injection of a killed microbe in order to stimulate the immune system against the microbe, thereby preventing disease. Vaccinations, or immunizations, work by stimulating the immune system, the natural disease-fighting system of the body. The healthy immune system is able to recognize invading bacteria and viruses and produce substances (antibodies) to destroy or disable them. Immunizations prepare the immune system to ward off a disease. To immunize against viral diseases, the virus used in the vaccine has been weakened or killed. To only immunize against bacterial diseases, it is generally possible to use a small portion of the dead bacteria to stimulate the formation of antibodies against the whole bacteria. In addition to the initial immunization process, it has been found that the effectiveness of immunizations can be improved by periodic repeat injections or "boosters."



TREATMENT RECORD - ZOO ANIMALS

S.NO	MONTH	MAMMAL	BIRD	REPTILE
1	Apr-17	21	3	3
2	May-17	20	3	1
3	Jun-17	25	8	2
4	Jul-17	22	6	0
5	Aug-17	24	2	0
6	Sep-17	11	0	1
7	Oct-17	11	1	6
8	Nov-17	14	1	1
9	Dec-17	22	1	1
10	Jan-18	16	3	1
11	Feb-18	20	1	1
12	Mar-18	23	1	1
	Total	**229**	**30**	**18**

A total of 277 animals including mammals, birds and reptiles were treated in this year. Most of the mammals were treated for infighting injuries, arena display and disease prevalence. Treatments for these animals were provided in their respective enclosures. The major mammals treated during this period are Lion tailed macaque, Asiatic elephant, Royal Bengal Tiger, white tiger, Lion, Leopard, Nilgiri langur, spotted deer, sambar deer, Nilgai, Himalayan black bear, Indian gaur, wild ass. Commonly treated reptiles and birds included reticulated python, Siamese crocodile, ostrich and rhea. The mortality in these treated animals was less than 3%. A systematic treatment follows up schedule was followed in each case of animal.

IMMOBILIZATIONS

Chemical immobilization is usually carried out in cases warranting enhanced and complete physical examination and the details of the procedures were furnished below. Big cats including tigers Two Tigers, three Lions, two leopards, one bear, 17 Primates and 32 Cervids were immobilized during the period. Visually animals weight was assessed, followed by actual estimation in Kg. The animals were given combination of injection xylazine (ILLIUM XYLAZIL-100®) and ketamine hydrochloride (KETAMIL®) at a dose rate of 1mg/Kg and 3 mg/Kg, respectively for lions, tigers and leopards. Bears received 2mg/Kg of xylazine and 5 mg/Kg of ketamine, primates required 10 mg/Kg and cervid protocol varied with the species requiring anesthesia. The standard operating protocol was followed. The animals were darted using blow pipes and the hind quarters was always preferred especially in the hip or thigh regions and the triceps was darted at rare instances as tigers immediately bit the dart syringe leading to poor or improper delivery of the anesthetic agent. The animals were fasted for a period of 24 hours before immobilization and were darted between 8 A.M to 10 A.M. The air way passage was opened and a small polyvinyl chloride of 10 cm length and 2 cm diameter was always jolted between the upper and lower canine tooth to aid proper ventilation. Immediately after a successful dart the animal was observed for signs of ataxia, sternal recumbency, lateral recumbency and the abolishment of the ear flick reflex was specifically used as an indicator for the safe approach towards the animal). The time taken for ataxia, time of lateral recumbency, time for abolishment of ear flick reflex, the duration of anesthesia, the first reaction time and recovery time were recorded. The vital signs post induction were also recorded at 10, 20, 30and 40 minutes. The time was measured using a digital stop watch**.** All animal was blindfolded using a bandage roll to prevent the visual stimulation and the roll was moistened by dipping it inside water to avoid the drying of the eyes.

ANNUAL INVENTORY OF ANIMALS

ABSTRACT

S. No.	Class	Stock as on			
		01.04.2017		31.03.2018	
		Species in Number	Animal in Number	Species in Number	Animal in Number
1	Mammals	44	445	47	456
2	Birds	93	1433	94	1604
3	Reptiles	33	424	33	411
	Total	**170**	**2302**	**174**	**2471**

ZOO INVENTORY REPORT

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Schedule I and II																					
	Birds																				
1	Peafowl *(Pavo cristatus)*	12	18	7	37											1		12	17	7	36
2	Spoonbill white *(Platalea leucorodia)*	0	0	1	1													0	0	1	1
3	Eastern white stork *(Ciconia ciconia)*	0	0	1	1													0	0	1	1
4	Great pied hornbill *(Buceros bicornis)*	0	1	0	1													0	1	0	1
5	Sea eagle white bellied *(Haliaeetus lecogaster)*	1	1	0	2										1			0	1	0	1
	Total Sch I & II Birds	**13**	**20**	**9**	**42**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**12**	**19**	**9**	**40**
	Mammals																				
1	Ass wild indian ghorkhar *(Equus heminous khur)*	1	2	0	3													1	2	0	3
2	Bear himalayan black *(Selenarctos thibetanus)*	1	0	0	1				1	1								2	1	0	3

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
3	Bear sloth *(Melursus ursinus)*	2	2	0	4											1		2	1	0	3
4	Binturong *(Arctictis binturong)*	1	0	0	1										1			0	0	0	0
5	Black buck krishna mrig *(Antilope cervicapra)*	5	4	2	11													5	4	2	11
6	Cat jungle *(Felis chaus)*	1	0	0	1			3	1	1								2	1	3	6
7	Brow antlered deer *(Rucervus eldii)*	0	0	0	0				1	1					1	1		0	0	0	0
8	Swamp deer (Cervus duvauceli)	5	6	2	13			1							1	1		4	5	3	12
9	Mouse deer *(Mousehila indica)*	0	0	0	0				2	3					1			1	3	0	4
10	Civet cat small indian *(Viverricula indica)*	0	0	0	0				1									1	0	0	1
11	Loris slender *(Loris tardigradus)*	0	1	0	1				1									1	1	0	2
12	Palm civet cat *(Paradoxure hemaphroditus)*	2	0	6	8													2	0	6	8
13	Dog wild (dhole) *(Cuon alpinus)*	0	0	0	0				1	1								1	1	0	2
14	Elephant indian *(Elephas maximus)*	3	1	0	4													3	1	0	4
15	Gaur indian *(Bos gaurus)*	12	11	0	23	1	3								2	1		11	13	0	24
16	Jackal *(Canis aureus)*	4	1	0	5													4	1	0	5
17	Deccan hanuman langur *(Semnopithecus entellus)*	2	1	0	3													2	1	0	3
18	Grey langur *(Semnopithecus thersites)*	1	1	1	3													1	1	1	3
19	Langur nilgiri *(Semnopithecus johni)*	4	7	8	19			2				1	1			1		3	5	10	18
20	Leopard / panther *(Panthera pardus)*	4	1	0	5													4	1	0	5
21	Macaque bonnet *(Macaca radiata)*	9	13	2	24													9	13	2	24
22	Macaque lion tailed *(Macaca silenus)*	9	10	4	23			2				2	1		1			6	9	6	21
23	Macaque rhesus *(Macaca mulatta)*	17	9	10	36			4										17	9	14	40

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
24	Otter common *(Lutra lutra)*	2	1	0	3										1			1	1	0	2
25	Porcupine bengal *(Atherucus mecrourus assamensis)*	1	2	3	6													1	2	3	6
26	Malabar giant squirrel *(Ratufa indica)*	0	0	0	0					1								0	1	0	1
27	Grizzled giant squirrel *(Ratufa macroura)*	2	1	0	3											1		2	0	0	2
28	Indian wolf *(Canis lupus)*	2	2	0	4			5										2	2	5	9
29	Tiger bengal white *(Panthera tigris tigris)*	4	7	0	11													4	7	0	11
30	Tiger bengal *(Panthera tigris tigris)*	5	10	0	15													5	10	0	15
	Total sch i & ii mammals	**99**	**93**	**38**	**230**	**1**	**3**	**17**	**8**	**8**	**0**	**3**	**2**	**0**	**8**	**6**	**0**	**97**	**96**	**55**	**248**
	Reptiles																				
1	Cobra indian *(Naja naja)*	0	0	15	15													0	0	15	15
2	Crocodile - gharial *(Gavialis gangeticus)*	2	2	0	4													2	2	0	4
3	Crocodile marsh (mugger) *(Crocodylus palustris)*	42	61	15	118											1		42	60	15	117
4	Crocodile salt water *(Crocodylus porosus)*	2	0	1	3													2	0	1	3
5	Monitor lizard / common indian *(Varanus bengalensis)*	4	9	0	13				1	1					2	2		3	8	0	11
6	Turtle pond *(Geoclemys trijuga)*	0	0	6	6													0	0	6	6
7	Python indian rock *(Python molurus molurus)*	2	2	42	46										1			1	2	42	45
8	Python reticulated *(Python reticulatus)*	6	11	18	35							2	2		1	1		3	8	18	29
9	Snake keelback checkered *(Xeno chrophis piscator)*	0	0	9	9													0	0	9	9
10	Snake rat / dhaman *(Ptyas mucosus)*	0	0	24	24													0	0	24	24

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
11	Viper russel's *(Vipera ruselli)*	0	0	3	3													0	0	3	3
12	Tricarinate hill turtle *(Melanochelys tricarinata)*	0	0	2	2													0	0	2	2
13	Chameleon *(Chameleon zylanicus)*	1	1	1	3													1	1	1	3
	Total Sch I & II Reptiles	**59**	**86**	**136**	**281**	**0**	**0**	**0**	**1**	**1**	**0**	**2**	**2**	**0**	**4**	**4**	**0**	**54**	**81**	**136**	**271**
	Total Schedule I & II	**171**	**199**	**183**	**553**	**1**	**3**	**17**	**9**	**9**	**0**	**5**	**4**	**0**	**13**	**11**	**0**	**163**	**196**	**200**	**559**
	Schedule III, IV and exotics																				
	Birds																				
1	Babbler yellow billed *(Turdodies caudatus)*	0	0	17	17													0	0	17	17
2	Bulbul red vented *(Pycnonotus cafer)*	0	0	17	17													0	0	17	17
3	Bulbul red whiskered *(Pycnonotus jocosus)*	0	0	13	13													0	0	13	13
4	Bulbul white browed *(Pycnonotus luteolus)*	0	0	4	4													0	0	4	4
5	Cassowary *(Casuarius unappendiculatus)*	1	0	0	1													1	0	0	1
6	Cockatiel grey *(Nymphicus hollandicus)*	9	2	7	18											1		9	1	7	17
7	Cockatiel white *(Nymphicus hollandicus)*	0	0	17	17												1	0	0	16	16
8	Cockatoo white crested *(Cacatua alba)*	0	0	1	1													0	0	1	1
9	Sulphur crested cockatoo *(Cacatua gaterita)*	1	1	1	3													1	1	1	3
10	Crane demoiselle *(Anthropoides virgo)*	1	1	0	2											1		1	0	0	1
11	Crane sarus *(Grus antigone)*	0	1	0	1													0	1	0	1
12	Dove collared red *(Streptopelia tranquebarica)*	2	2	2	6										1			1	2	2	5
13	Dove spotted *(Streptopelia chinensis)*	0	0	19	19													0	0	19	19

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
14	Duck spot-billed *(Anas poecilorhyncha)*	0	0	1	1													0	0	1	1
15	Egret cattle *(Bubulcus ibis)*	0	0	4	4													0	0	4	4
16	Egret little *(Egretta garzetta)*	0	0	82	82			30										0	0	112	112
17	Ostrich *(Strutheo camelus)*	5	4	0	9			6							2	1	1	3	3	5	11
18	Rhea *(Rhea americana)*	2	1	0	3										1			1	1	0	2
19	Emu *(Dromaius novaehollandiae)*	0	0	4	4													0	0	4	4
20	Flamingo greater *(Phoenico pterus antiguarum)*	0	0	1	1													0	0	1	1
21	Flamingo lesser *(Phoenicopterus minor)*	0	0	2	2													0	0	2	2
22	Goose *(Anser anser)*	0	0	3	3													0	0	3	3
23	Bar headed goose *(Anser indicus)*	0	0	3	3													0	0	3	3
24	Heron eastern grey *(Ardea cinerea)*	0	0	18	18			20										0	0	38	38
25	Heron night *(Nycticorax nycticorax)*	0	0	440	440			50										0	0	490	490
26	Heron pond *(Ardeola grayii)*	0	0	3	3													0	0	3	3
27	Ibis white *(Threskiornis aethiopica)*	0	0	6	6			10			10							0	0	26	26
28	Kite brahminy *(Haliastur indus)*	0	0	1	1													0	0	1	1
29	Indian common kite *(Milvus migrans)*	0	0	25	25													0	0	25	25
30	Macaw red & green *(Ara chloroptera)*	0	0	1	1													0	0	1	1
31	Munia black headed *(Lonchura malabarica)*	0	0	27	27													0	0	27	27
32	Myna common *(Acridotheres tristis)*	0	0	25	25													0	0	25	25
33	Owl barn *(Tyto alba)*	0	0	2	2													0	0	2	2
34	Owl indian eagle *(Bubo bengalensis)*	0	0	1	1													0	0	1	1

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
35	Parakeet alexandrine (psittacula eupatria)	1	6	8	15			14										1	6	22	29
36	Parakeet rose ringed *(Psittacula krameri)*	24	34	101	159						22				1			23	34	123	180
37	Parakeet rose ringed (mutant) *(Psittacula krameri)*	7	3	12	22													7	3	12	22
38	Redbreasted parakeet *(Psittacula alexandri)*	1	0	0	1													1	0	0	1
39	Parakeet malabar *(Psittacula columboides)*	1	0	0	1													1	0	0	1
40	Parakeet blossom headed (Psittacula cyanocephala)	2	2	1	5										1			1	2	1	4
41	Parrot african grey *(Psitacus erithacus)*	1	1	2	4													1	1	2	4
42	Parrot eclectus *(Electus roratus)*	1	0	0	1													1	0	0	1
43	Rosella eastern *(Platycerus exinus)*	1	1	0	2													1	1	0	2
44	Partridge grey *(Francolinus pondicerianus)*	0	0	3	3													0	0	3	3
45	Peafowl white *(Pavo cristatus)*	14	20	0	34							2	2		1	1		11	17	0	28
46	Pelican grey *(Pelecanus philippensis)*	0	0	26	26													0	0	26	26
47	Pelican rosy / white *(Pelecanus onocrotalus)*	0	0	5	5													0	0	5	5
48	Redjungle fowl *(Gallus gallus murghi)*	2	1	0	3													2	1	0	3
49	Grey jungle fowl *(Gallus gallus sonneritti)*	1	1	0	2													1	1	0	2
50	Ring necked pheasant *(Phasianus colchicus)*	1	1	0	2											1		1	0	0	1
51	Lady amherst pheasant *(Chrysolophus amherstiae)*	0	0	0	0				1	1								1	1	0	2
52	Pheasant golden *(Chrysololphus pictus)*	1	1	0	2										1			0	1	0	1
53	Phesant silver *(Lophura nycthemera)*	2	3	0	5													2	3	0	5
54	Sea gull brown headed *(Larus brunnicephalus)*	0	0	1	1													0	0	1	1

Sl. No.	Name of the species	Stock as on 01.04.2017				During the period												Stock as on 31.03.2018			
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
55	Shikra *(Accipiter badius badius)*	0	0	1	1													0	0	1	1
56	Stork adjutant lesser *(Leptoptilos javanicus)*	1	0	1	2													1	0	1	2
57	Stork adjutant greater *(Leptoptilos dubius)*	1	0	0	1													1	0	0	1
58	Stork painted *(Mycteria leucocephala)*	0	0	118	118			30						10				0	0	138	138
59	Vulture white backed Bengal *(Gyps bengalensis)*	0	1	0	1													0	1	0	1
60	Koel *(Eudynamys scolopacea)*	1	1	0	2													1	1	0	2
61	Blue rock pigeon *(Columbia livia)*	0	0	34	34													0	0	34	34
62	Peach faced love bird (*Agapornis roseicollis)*	1	0	2	3													1	0	2	3
63	Fischers love bird *(Agapornis fischeri)*	1	2	0	3											1		1	1	0	2
64	Zebra finch *(Teniopygia guttata)*	10	10	0	20													10	10	0	20
65	Greater coucal *(Centropus sinensis)*	0	0	1	1													0	0	1	1
66	Blue and golden macaw *(Ara ararauna)*	1	1	3	5			2										1	1	5	7
67	Paddyfield pipit *(Anthus rufulus)*	0	0	10	10													0	0	10	10
68	Black swan *(Cygnus atratus)*	2	1	0	3													2	1	0	3
69	Serpent eagle *(Spilornis cheela)*	0	0	2	2													0	0	2	2
70	White pigeon *(Columba livia)*	0	0	5	5													0	0	5	5
71	White dove *(streptopelia decaocto)*	0	1	0	1													0	1	0	1
72	Openbill stork *(Anastomus oscitans)*	0	0	2	2				2	2					2			0	2	2	4
73	Pearly conure *(Pyrrhura lepida)*	1	1	0	2													1	1	0	2
74	Maroon belied conure *(Pyrrhura frontalis)*	1	1	0	2													1	1	0	2
75	Green cheek conure pinapple *(Pyrrhura molinae)*	1	1	0	2													1	1	0	2

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						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
76	Jenday conure *(Aratinga jandaya)*	1	1	0	2										1			0	1	0	1
77	Green cheek conure cinnamon *(Pyrrhura molinae)*	1	1	0	2													1	1	0	2
78	White browed wagtail *(Motacilla maderaspatensis)*	0	0	4	4													0	0	4	4
79	Monk parakeet *(Myiopsitta onachus)*	2	1	0	3													2	1	0	3
80	Glossy ibis *(Anhinga melanogaster)*	0	0	3	3													0	0	3	3
81	Darter (*Anhinga melanogaster*)	0	0	4	4												2	0	0	2	2
82	Cormorant little *(Phalacrocorax niger)*	0	0	30	30													0	0	30	30
83	Dove silver diamond *(Geopelia cuneata)*	6	7	0	13													6	7	0	13
84	Lesser whistling duck *(Dendrocygna bicolor)*	0	0	2	2													0	0	2	2
85	Indian vulture *(Gyps indicus)*	0	0	1	1													0	0	1	1
86	Budgerigars *(Melopsittacus undulatus)*	6	6	0	12			8										6	6	8	20
87	Rainbow lorikeet *(Trichoglossus haematodus)*	2	1	0	3													2	1	0	3
88	Java sparrow *(Lonchura oryzivora)*	8	10	0	18													8	10	0	18
89	Forest owlet *(Athene blewitti)*	0	0	1	1													0	0	1	1
	Sch III, IV & exotic birds	**128**	**133**	**1130**	**1391**	**0**	**0**	**170**	**3**	**3**	**32**	**2**	**2**	**10**	**11**	**6**	**4**	**118**	**128**	**1318**	**1564**
	Total birds	**141**	**153**	**1139**	**1433**	**0**	**0**	**170**	**3**	**3**	**32**	**2**	**2**	**10**	**12**	**7**	**4**	**130**	**147**	**1327**	**1604**
	Mammals																				
1	Baboon savana *(Papio cynocephalus)*	2	0	0	2													2	0	0	2
2	Capuchin brown *(Cebus apella)*	1	1	0	2													1	1	0	2
3	Chimpanzee *(Pan troglodytes)*	1	1	0	2													1	1	0	2
4	Deer barking muntjac *(Muntiacus muntjak)*	5	11	0	16										1	2		4	9	0	13
5	Deer hog *(Axis porcinus)*	3	1	0	4													3	1	0	4

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						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
6	Deer sambar *(Rusa unicolor)*	27	48	23	98								1		3			24	47	23	94
7	Deer spotted (chital) *(Axis axis)*	4	23	10	37													4	23	10	37
8	Giraffe *(Giraffa cameleopardalis)*	1	1	0	2													1	1	0	2
9	Hippopotamus *(Hippopotamus amphibius)*	3	4	0	7	1												4	4	0	8
11	Hyaena striped *(Hyaena hyaena)*	1	2	0	3													1	2	0	3
12	Jaguar *(Panthera onca)*	1	0	0	1													1	0	0	1
13	Lion hybrid *(Panthera leo)*	7	7	0	14			1								3		7	4	1	12
14	Mongoose common indian *(Herpestes edwardsii)*	1	2	0	3													1	2	0	3
15	Nilgai / Blue bull *(Boselaphust tragocamelus)*	3	5	0	8					1					2	1		1	5	0	6
16	Hare black naped *(Lepus nigricollis)*	0	0	1	1													0	0	1	1
17	Wild boar *(Sus scrofa)*	2	8	3	13			4								1		2	7	7	16
18	Red necked wallaby *(Macropus rufogrieus)*	0	1	0	1													0	1	0	1
19	Zebra grant *(Equus burchelli bohemi)*	0	1	0	1													0	1	0	1
	Sch III, IV, exotic mammals	**62**	**116**	**37**	**215**	**1**	**0**	**5**	**0**	**1**	**0**	**0**	**1**	**0**	**6**	**7**	**0**	**57**	**109**	**42**	**208**
	Total mammals	**161**	**209**	**75**	**445**	**2**	**3**	**22**	**8**	**9**	**0**	**3**	**3**	**0**	**14**	**13**	**0**	**154**	**205**	**97**	**456**
	Reptiles																				
1	Caiman spectacled *(Caiman caiman)*	1	2	0	3													1	2	0	3
2	Morolet crocodile *(Crocodylus moretti)*	0	3	0	3													0	3	0	3
3	Siamese crocodile *(Crocodylus siamensis)*	1	1	0	2				1									2	1	0	3
4	Nile crocodile *(Crocodylus niloticus)*	0	1	0	1													0	1	0	1
5	Flap shelled turtle *(Lissemys punctata)*	0	0	6	6													0	0	6	6

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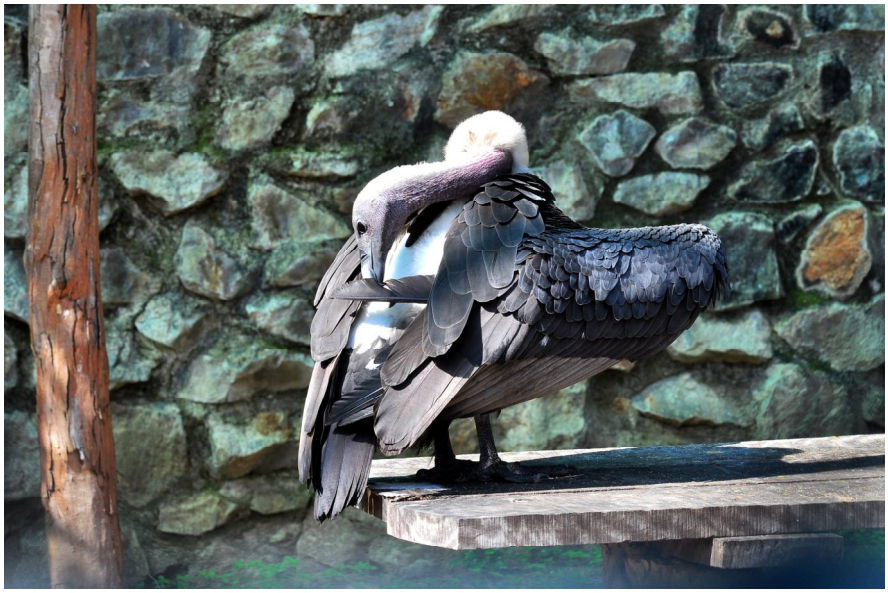
						Birth			Acquisition			Disposal			Death						
		M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
6	Turtle indian black *(Melanochelys hamiltonii)*	0	0	45	45													0	0	45	45
7	Krait common indian *(Bungarus caeruleus)*	0	0	2	2													0	0	2	2
8	Sand boa *(Erix johni)*	0	0	5	5													0	0	5	5
9	Sand boa red *(Erix conicus)*	0	0	8	8												1	0	0	7	7
10	Snake beauty *(Elaphae helena)*	0	0	1	1													0	0	1	1
11	Snake green *(Ahaeutulla nasutus)*	0	0	6	6													0	0	6	6
12	Snake keelback striped *(Amphiesma stolata)*	0	0	4	4													0	0	4	4
13	Common indian tree snake *(Dendrelaphais tristis)*	0	0	2	2													0	0	2	2
14	Ball python *(Python regius)*	0	0	2	2											1		0	-1	2	1
15	Tortoise indian star *(Geochelone elegans)*	0	0	20	20												1	0	0	19	19
16	Viper saw scaled *(Echis carinata)*	0	0	3	3													0	0	3	3
17	Dwarf caiman *(paleosuchus palpebrosu*	0	0	3	3												1	0	0	2	2
18	West african dwarf crocodile *(Osteolaemus tetraspis)*	0	0	1	1													0	0	1	1
19	Green iguana *(Iguana iguana)*	1	1	0	2													1	1	0	2
20	Red eared terrapin *(Chrysemys scripta elegans)*	0	0	24	24													0	0	24	24
	Total Sch III, IV & exotic reptiles	**3**	**8**	**132**	**143**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**3**	**4**	**7**	**129**	**140**
	Total reptiles	**62**	**94**	**268**	**424**	**0**	**0**	**0**	**2**	**1**	**0**	**2**	**2**	**0**	**4**	**5**	**3**	**58**	**88**	**265**	**411**
	Total schedule III, IV, V and exotic animals	**193**	**257**	**1299**	**1749**	**1**	**0**	**175**	**4**	**4**	**32**	**2**	**3**	**10**	**17**	**14**	**7**	**179**	**244**	**1489**	**1912**
	All total	**364**	**456**	**1482**	**2302**	**2**	**3**	**192**	**13**	**13**	**32**	**7**	**7**	**10**	**30**	**25**	**7**	**342**	**440**	**1689**	**2471**



ANIMAL BIRTH DETAILS DURING 2017-18

MAMMALS

Sl. No	Name of the species	Scientific name	Date	Sex
1	Nilgiri langur	*Semnopithecus johnii*	28.04.2017	0:0:1
2	Nilgiri langur	*Semnopithecus johnii*	13.06.2017	0:0:1
3	Lion tailed macaque	*Macaca silenus*	16.06.2017	0:0:1
4	Lion tailed macaque	*Macaca silenus*	31.06.2017	0:0:1
5	Indian gaur	*Bos gaurus*	01.04.2017	0:1
6	Indian gaur	*Bos gaurus*	18.06.2017	1:0
7	Rhesus macaque	*Macaca mullata*	07.04.2017	0:0:1
8	Rhesus macaque	*Macaca mullata*	16.05.2017	0:0:1
9	Rhesus macaque	*Macaca mullata*	16.05.2017	0:0:1
10	Rhesus macaque	*Macaca mullata*	28.06.2017	0:0:1
11	Hippopotamus	*Hippopotamus amphibius*	22.07.2017	1:0
12	Indian gaur	*Bos gaurus*	25.08.2017	0:1
13	Wild boar	*Sus srofa*	14.09.2017	0:0:4
14	Indian wolf	*Canis lupus*	06.12.2017	0;0;5
15	Jungle cat	*Felis chaws*	O6.12.2017	0;0;3
16	Lion	*Panthera leo*	27.01.2018	0;0;1
17	Indian gaur	*Bos gaurus*	25.02.2018	0.1.
18	Swamp deer	*Cervus duvauceli*	06.02.2018	0;0;1

BIRDS

Sl. No	Name of the species	Scientific name	Date	Sex
1.	Alexandrian parakeet	*Psittacula eupatria*	01.04.2017 to 30.06.2017	0:0:14
2	Painted stork	*Mycteria leucocephala*	01.04.2017 to 30.06.2017	0:0:20
3	Budgerigars	*Melopsittacus undulatus*	01.04.2017 to 30.06.2017	0:0:8
4	Grey heron	*Ardea cinerea*	01.04.2017 to 30.06.2017	0:0:20
5	Blue and yellow macaw	*Ara ararauna*	01.07.2017	0:0:2
6	Ostrich	*Strutheo camelus*	03.09.2017	0:0:6
7	Night heron	*Nicticorax nicticorax*	01.01.2018 to 30.03.2018	0;0;50
8	Little Egret	*Egretta garzetta*	01.01.2018 to 30.03.2018	0;0;30
9	Painted stork	*Mycteria leucocephala*	01.01.2018 to 30.03.2018	0:0:10

REPTILES -NIL

ANIMAL DEATH DETAILS DURING 2017-18

MAMMALS

Sl. No.	Name of the species	Scientific Name	Date of Death	Sex	Cause of Death
1	Swamp deer	*Cervus duvauceli*	03.04.2017	F	Bilateral hip dislocation &shock
2	Barking deer	*Muntiacus muntjak*	23.04.2017	F	Infighting and shock
3	Otter	*Lutra lutra*	27.04.2017	M	Pneumonia and renal failure
4	Sloth bear	*Melursus ursinus*	20.05.2017	F	Infighting and shock
5	Sambar	*Rusa unicolor*	14.06.2017	M	Shock
6	Brow antlered deer	*Rucervus eldii*	17.06.2017	F	Capture myopathy
7	Brow antlered deer	*Rucervus eldii*	18.06.2017	M	Capture myopathy
8	Binturong	*Binturong arctitis*	29.06.2017	M	Multiple organ failure
9	Indian Gaur	*Bos gaurus*	19.06.2017	M	
10	Barking deer	*Muntiacus muntjak*	05.07.2017	F	Pneumonia
11	Indian Gaur	*Bos gaurus*	20.08.2017	M	Acute septicemia
12	Nilgiri langur	*Semnopithecus johnii*	02.10.2017	F	Cystis (Uterus)
13	Sambar	*Rusa unicolor*	18.10.2017	M	Infighting
14	Wild boar	*Sus scrofa*	30.11.2017	F	Pneumonia
15	Bengal tiger*	*Panthera tigris*	05.11.2017	2:2	Catabolism
16	Lion (Mala)	*Panthera leo persica*	15.11.2017	F	Peritonitis

17	Sloth bear*	*Melurus sursinus*	14.12.2017	U	Still born
18	Jungle cat*	*Feli schaus*	24.12.2017	2:1	Poor mothering ability
19	Mouse deer	*Mochila indica*	27.12.2017	M	Infighting
20	Lion(Sasi)	*Panthera leopersica*	27.12.2017	F	Multiple organ failure
21	Swamp deer	*Cervus duvaucel*	28.12.2017	M	Toxemia
22	Indian Gaur	*Bos gaurus*	29.12.2017	F	Enteritis
23	Barking deer	*Muntiacu smuntjak*	06.01.2018	M	Infighting
24	Lionessw	*Panthera leopersica*	24.01 2018	F	senility
25	Nilgai Deer	*Boselaphus tragocamelus*	24.01 2018	M	Senility
26	Nilgai Deer	*Boselaphus tragocamelus*	06.02.2018	M	Septicemia
27	Grizzled giant squirrel	*Ratufa macroura*	18.02.2018	F	Enteritis
28	Sambar	*Rusa unicolor*	18.02.2018	M	Senility
29	Nilgai	*Boselaphus tragocamelus*	22.02.2018	F	
30	Sambar	*Rusa unicolor*	04.03.2018	M	Septicemia
31	Lion tailed macaque	*Macaca silenus*	08.03.2018	M	

BIRDS

Sl. No.	Name of the species	Scientific Name	Date of Death	Sex	Cause of Death
1	Janday conure	*Aratinga jandaya*	17.04.2017	M	Shock
2	Peafowl	*Pavo cristatus*	18.04.2017	F	Enteritis
3	Peafowl White	*Pavo cristatus*	29.04.2017	F	Enteritis
4	Ring necked pheasant	*Phasianu scolchicus*	16.05.2017	F	Entero colitis
5	White cockatiel	*Nymphicus hollandicus*	19.05.2017	M	Enteritis
6	Demoiselle crane	*Anthropoides virgo*	01.06.2017	F	Predator bite
7	Grey cockatiel	*Nymphicu shollandicus*	01.06.2017	F	Dehydration
8	Ostrich	*Strutheo camelus*	08.06.2017	M	Hemorrhagic shock
9	Golden pheasant	*Chrysololphuspictus*	08.08.2017	M	Septicemia with hydro pericardium
10	Blossom Headed Parakeet	*Psittacula cyanocephala*	08.08.2017	M	Cerebral hemorrhages
11	Open bill stork	*Anastomose oscitans*	24.09.2017	M	Impaction
12	Collared dove	*Streptopelia tranquebarica*	30.09.2017	M	Infighting
13	Open bill stork	*Anastomose oscitans*	02.10.2017	M	Impaction
14	Open bill stork	*Anastomose oscitans*	21.10.2017	M	Impaction
15	Ostrich	*Strutheo camelus*	6.11.2017	M	Broncho pneumonia
16	Ostrich*	*Strutheo camelus*	14.11.2017	U	Congenital anomaly

17	White peafowl	*Pavo cristatus*	22.11.2017	M	Infighting
18	Ostrich*	*Strutheo camelus*	22.11.2017	F	Intestinal rupture
19	Rhea	*Rhea Americana*	03.01.2018	M	Enteritis
20	Rose ringed parakeet	*Psittacula cyanocephala*	03.01.2018	M	Enteritis
21	Fischer love birds	*Psitacus erithacus*	03.01.2018	F	Head trauma
22	Darter	*Anhinga melanogaster*	05.01.2018	U	Stomach infection
23	White belied sea eagle	*Haliaeetus lecogaster*	07.01.2018	M	Predator bite
24	Darter	*Anhinga melanogaster*	05.03.2018	U	Stomach infection

REPTILES

Sl. No.	Name of the species	Scientific Name	Date of Death	Sex	Cause of Death
1	Reticulated python	*Python reticulates*	07.04.2017	F	Cannibalism
2	Star tortoise	*Geochelone elegans*	07.04.2017	U	Predator bite
3	Reticulated python	*Python reticulates*	26.04.2017	M	Shock
4	Ball Python	*Python regius*	18.06.2017	F	Hepatic lipidosis and renal failure
5	Red sand boa	*Erix conicus*	18.06.2017	U	Hepatitis
6	Indian rock python	*Python molurus molurus*	21.06.2017	M	Juvenile mortality
7	Marsh crocodile	*Crocodylus palustris*	29.06.2017	F	Multiple organ failure
8	Common Monitor lizard	*Varanus bengalensis*	22.09.2017	M:F	Infighting
9	Common Monitor lizard	*Varanu sbengalensis*	20.10.2017	M	Pneumonia
10	Dwarf caiman	*Paleosuchuspalpebrosu*	06.11.2017	U	Nephritis
11	Common Monitor lizard	*Varanus bengalensis*	13.11.2017	F	Nephrosis

COMPLIANCE WITH CONDITIONS STIPULATED BY CZA

Sl.No	Norm No.	Particulars of Suggestion	Time required to comply	Status with regard to compliance
1.General requirements				
1	1.1	The zoo should continue its determined campaign to organize its animal collection in to viable breeding groups to optimize breeding potential and to do away with single sex animals for which mates are not available for remaining species such as Horn bill, Baboons, Himalayan Black bear, Wolf, Vulture and Zebra	Within a year	Pairs received for Himalayan Black bear and Wolf and the upcoming exchange process remaining animals will be paired

2	1.2	The colour particularly blue, being used in the zoo at most of the places for benches, structures, Kerbstones do not merge with the green environment inside the zoo. The sober, dark colour merging with the nature and greenery of the zoo, use that do not become very prominent in the environment, in the zoo all places.	Within a year	In most of the places the colour blue repainted with sober gray colour
3. Development and Planning				
3	3.6	The zoo should submit to the CZA a copy of the report it has submitted to Principal Chief Conservator of Forests and Chief Wildlife Warden, of the state in respect of rescued animals pertaining to endangered species that has been received in the zoo.	Within three months	No endangered species rescued
4,Animal housing, display of animals and animal enclosures				
4	4.8	Design of all animal enclosures that have been constructed without approval of CZA i.e. Wild dog, Jackal, White / normal colored Tiger and the primate enclosures should be submitted to CZA for further directions.	Within six months	Will be submitted
5	4.9	The direction of last evaluation that the height of standoff barriers should not exceed one meter should be complied with	Within a year	Works are in progress
6	4.9	The direction of last evaluation to plant thorny bushes/green hedge between the standoff barrier and the moat wall should be complied with.	Within a year	Planting of hedges was carried out in more places. Remaining works is being carried out

2.Upkeep and healthcare of animals				
7	5.1(e)	The perches and shelves of water bird enclosures should be clean regularly and kept free of feces and urine.	with immediate effect	Yes, done regularly
8	5.2(4)	The meat handles entering the facility should change into a clean and disinfected boots and overalls.	with immediate effect	Yes, done regularly
9	5.2(5)	The meat handlers should use clean gloves when handling meat.	with immediate effect	Yes, followed
10	5.2(7)	There should be covered drainage system to prevent wastes and water from the meat preparation facility and the stores draining on to the ground surrounding the facility	Within three months	Work in progress
11	5.2(8)	8) The zoo should consider signing a MOU with TANUVAS from where services of experts are being utilized.	Within a year	An MOU has been drafted and has been submitted to higher authority for further considerations.
3.Veterinary and infrastructure facilities				
12	6.3	One more stockman / compounder should be appointed	Within a year	In Progress
9.Acquisition and breeding of animals				
13	9.4	Mates should be acquired for Himalayan black bear, Jungle cat, Indian lion, Flying squirrel, Common otter and Grizzled giant squirrel	Within a year	Mates acquired for all species. No flying squirrel right now. The female Grizzled giant squirrel died recently
14	9.6	The direction of last evaluation all animals of conservation breeding programme should be marked with transponders, particularly Lion tailed macaque, Nilgiri langur, Wild dog and Gaur should complied with.	Within a year	Being marked whenever capturing is been necessitated.

15	9.8	Studbooks for endangered species maintained in the format prescribed by the Central Zoo Authority	Within two months	Yes , it is followed
16	9.9	The effective Population control measures should all prolifically breeding species since the achievement it regard from last evaluation has not been very much satisfactory	Within a year	Hippopotamus: Male and female were segregated. Marsh crocodile: Vasectomy had been done to 50% of male crocodiles with the help of experts from TANUVAS. Additionally Bonnet Macaque vasectomy was carried out to curb the population
10. Research activities				
17	10.1	The zoo should implement research plan as indicated in the Master plan and conduct research on the prioritized species and specific areas concern	Within a year	Masterplan discussions done, regulatory research is being carried out for critical species. Presently stress assessment studies and standardization of anesthetic protocols in herbivores and birds are being carried out. Additionally dissertation of Masters and Doctoral students from the Department of Wildlife Science, Madras Veterinary College, TANUVAS are being carried out in every academic year on specific areas of species and concern.
12.Visitors facilities				
18	12.3	The Zoo should make proper arrangements for providing access to the physically challenged persons for viewing wild animal enclosures	Within a year	Necessary ramp provision are made. Work in progress

FREE LIVING WILD ANIMALS IN THE ZOO PREMISES

The following are the free ranging animals recorded inside the zoo premises of Arignar Anna Zoological Park, Vandalur.

MAMMALS- Spotted Deer, Mangoose, Black naped hare, Porcupine, Palm civet, Jackal, Jungle cat, Small indian civet cat and small Rodents

BIRDS- Painted stork, Grey heron, Night heron, Pond heron, Little egret, Intermediate egret, Cattle egret, Cormorant, Spoon bill, Open billed stork, Pariah kite, Brahminy kite, Red vented bulbul, Red whiskered bulbul, Black drongo, Racket tailed drongo, Indian treepie, Coucal, flameback Woodpecker, Asian koel, Spotted dove, Paradise flycatcher, Chestnut headed bee-eater, Magpie robin, Wagtail, Indian robin, Babler, Red wattled lapwing, White eye, Common mynah, Palm swift, Hoopoe, Sunbird,

REPTILES- Rat snake, Spectacled cobra, Green vine snake, Copperback tree snake, Trinket, kukri, Olive keelback, Checkered keelback, Russels viper, Saw scaled viper, Common krait, Monitor lizard, Garden lizard, Gecko, Star tortoise, Indian pond terrapin.

BIRD CENSUS AT OTTERI LAKE

As part of the synchronized bird census which is conducted every year, the bird census was carried out during the 7th and 8th of February 2018 at the Otteri lake, AAZP. The Otteri lake is one of the major attractions of the Vandalur Zoo and it attracts many visitors throughout the year, numerous bird species are found nesting in this lake. In general, the Heronries are a concentrated breeding effort in time and space. Total population of birds at a heronry varies considerably at different hours of the day, signifying local foraging or nest material collection. Hence the count time has to be kept constant if any meaningful trends are to be derived from a long term heronry census at a particular site. There is no single technique that can be used for counting all types of birds. The principal reason is that birds differ in terms of their size, behavior and habitat preferences. Hence a census method useful for one species or habitat is ineffective for another. The Census technique followed at Otteri tank (AAZP, Vandalur) was the Direct method (total count). A total of 14 species of water birds (5014 nos) were identified. Waterbirds mainly chose *Barringtonia sp, Acacia auriculiformis, Terminalia arjuna, Bamboo sp* for nesting and also on some dead trees (snags).

Sl.No	Name Of the Bird	Scientific Name	Total Birds Counted
1	Open bill Stork	*Anastomus oscitans*	201
2	Painted Stork	*Mycteria leucocephala*	13
3	Grey Heron	*Ardea cinerea*	98
4	Little Egret	*Egretta garzetta*	254
5	Intermediate Egret	*Mesophoyx intermedia*	23

6	Cattle Egret	*Bubulcus ibis*	27
7	Black Headed Ibis (White Ibis)	*Threskiornis melanocephalus*	274
8	Indian cormorant	*Phalacrocorax fuscicollis*	130
9	Little Cormorant	*Phalacrocorax niger*	2842
10	Night Heron	*Nycticorax nycticorax*	254
11	Pond Heron	*Ardeola grayii*	84
12	Darter	*Anhinga melanogaster*	286
13	Spoonbill	*Platalea leucorodia*	47
14	Spot billed pelican	*Pelecanus philippensis*	1
	Total		**4536**

EXPERTISE IN HANDLING THE VISITOR CROWD

THE POPULAR DESTINATION OF TAMILNADU'S KAANUM PONGAL

The auspicious celebration of the Pongal Festival ends with the 'Kaanum Pongal'. The Word 'Kaanum' in this context means 'To Visit'. People visit their families, hold reunions. Apart from this they tend to have picnics to nearby places. Arignar Anna Zoological Park is one the preferred spots to visit in Chennai during Kaanum Pongal. The Zoo stands second in terms of the visitor footfall on this day next to famous Marina beach(Chennai). Expecting the large inflow of the visitors right from the early hours, the timing of the zoo was advanced for convenience of the public.

Apart from Tamil Nadu Forest Department, others departments also rendered assistance to the zoo management - Police Department, Fire Services Department, Water board, Transport department, Electricity Board and Health department are the few to be mentioned. The services rendered by other departments were commendable.

In entrance, the number of ticket counters was increased to 30 to ease the ticketing process. The zoo entry checking counters were increased to 10. Apart from usual resting sites, in many other location shade areas were provided for the visitors to rest. Additional eatery outlet stalls were made open. Help desks were installed at 5 different places in the main circle road and at the entrance. Medical Camps were organized by the District Health department and Tagore Medical College for First Aid. 3 ambulances were ready at standby to cater any emergency situation. Volunteers from various Colleges participated and helped out in guiding the public. In all the help desks, health professionals and volunteers were present. Special early

feeding was arranged for all the zoo animals and their status was regularly monitored by the respective animal keepers and the zoo veterinarians.

Uniform staffs of the forest department from many parts of the state were deputed to the Zoo for security purposes. 110 staffs including Forest Range Officers, Foresters, Forest Guards and Forest watchers were on duty inside the zoo premises. More than 50 Policemen of varied designations were placed on duty to ensure the law and order and to manage the crowd. The fire services department was headed by the District fire officer. The team comprised of 11 fire servicemen along with 2 fire combat vehicles from Chengalpattu and Maraimalai Nagar region. The uninterrupted power and water supplied was ensured by the electricity board and water authority respectively. Total of 30 personal headed by Assistant engineer attended and rendered their services.

The Madras Transport Corporation MTC helped in easing the travel of visitors between parking lot and zoo entrance. Total of 4 MTC minibuses were hired for free shuttle services between VGP ground parking area and zoo entrance. 200 special buses were operated from all over Chennai region to AAZP to facilitate the public visit to the zoo on this day. The visitors' movement was monitored by CCTV Cameras. The Tamil Nadu Police Department staffs along with the Zoo Crowd management team assisted the public for easy movement inside the Zoo. Help desks with public address system were installed at 5 different spots along the circular road. Some incidences of parents missing their children were reported and the missed children were immediately rescued and reunited with the parents.

Overall the day ended with blissful memories and it was one other success for the Zoo to have handled a large crowd without any untoward incidents. The total footfall was more than hundred thousand during this 4day festival, out of which 45000 visited on Kaanum Pongal day.


EXTRA TICKET COUNTERS
METAL DETECTORS
WOMEN FRISKING
CCTV MONITORING
FREE SHUTTLES
FIRE RESCUE
MEDICAL ASSISTANCE
HELP DESK

NOVEL INITIATIVES OF AAZP

1. DIGITAL PAYMENT FOR ENTRY TICKETS THROUGH ONLINE TICKETING, POS MACHINES AND MOBILE APPLICATION

Arignar Anna Zoological Park, Vandalur has records of more than 20 lakh visitors every year. Being one of the most famous tourism destination of Chennai, it attracts domestic and foreign visitors. On the occasions of long holidays, the visitor footfall is observed to be high ranging from 15000 to 30000 per day. During such crowded days, the visitors faced great difficulty waiting in long queues at the entrance Ticket counter to get the zoo entry tickets.

In order to address this difficulty and to initiate digital transactions, Arignar Anna Zoological Park introduced Online Ticketing system through the website www.aazp.in.

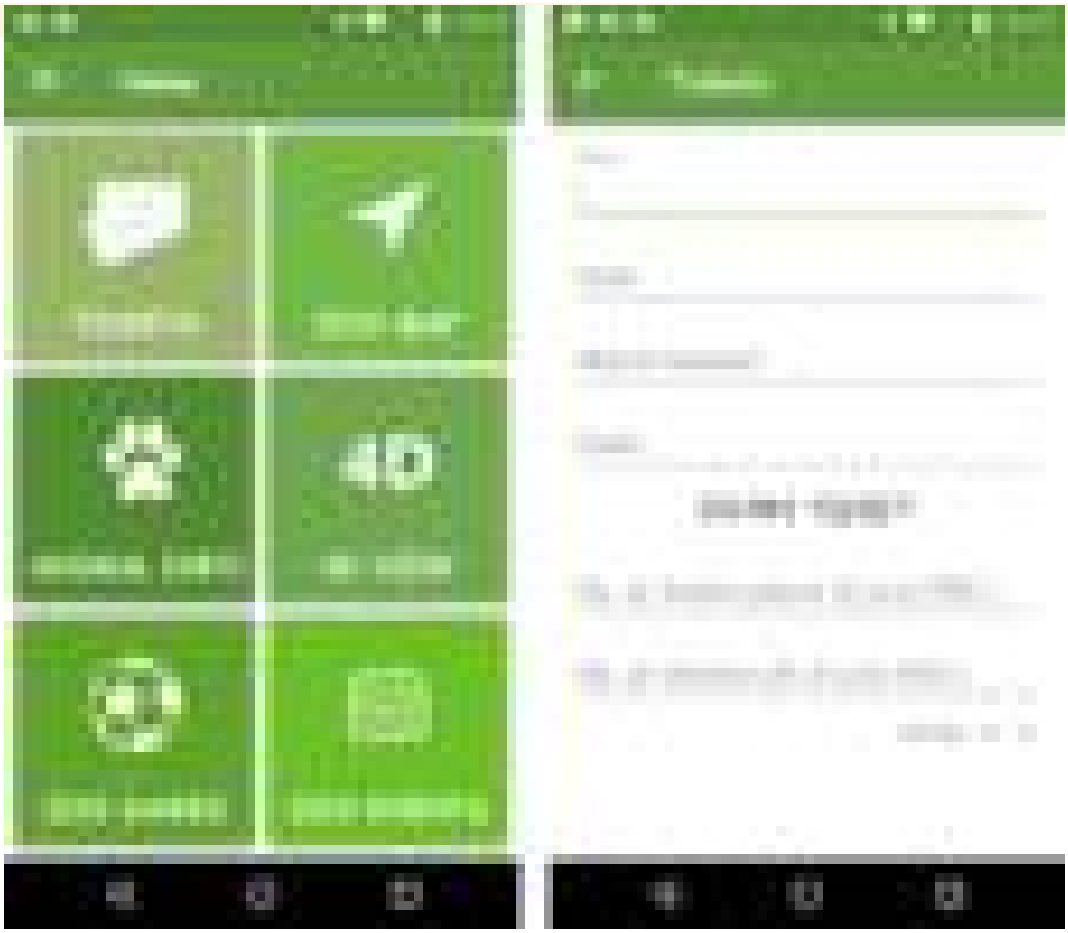
- Online Ticketing system was made available to public since 10.1.2018 and large numbers of visitors are getting benefitted by this system. This facility is available in two languages - Tamil and English.
- At the entrance Ticket counters, POS machines are placed so as to provide facility for the visitors to use their credit and debit cards to purchase the zoo entry tickets.
- Zoo Management has introduced a mobile application in the name of “Vandalur Zoo” which also has Ticket Booking Facility. This facility is available in two languages - Tamil and English.

Therefore, the zoo management has provided a platform for the public to use Digital payments for the entry tickets. The major benefits of this system is listed below,

1. The waiting time of visitors is reduced.
2. Digital means of transaction has added to the improvement in the efficiency of the ticketing system.
3. Visitors can plan their visit well in advance.

ONLINE TICKETING - WEBSITE

TICKET BOOKING MODULE IN THE MOBILE APPLICATION (“VANDALUR ZOO”)



2 .A REAL TIME GUIDE TO THE VISITORS THROUGH “VANDALUR ZOO” APP

Arignar Anna Zoological Park is known for its excellent public service, recreation, and along with creation of eco-awareness to the public through the Outreach activities. In experiencing the existence of wild animals, this zoo is one place which gives a live experience of knowing the habitual expressions of almost 2400 animals including many endangered and exotic species. Arignar Anna Zoological Park, famously known as "Vandalur Zoo" is one of the proud asset of Tamil Nadu, it attracts more than 20 lakh visitors every year from across the country and the world.

To facilitate more comfort and service to the visitors, AAZP has developed a mobile application **‘Vandalur Zoo’** for mobile phones users. Both Tamil and English is language preference is available in this mobile application. The **Vandalur Zoo** application comes with multiple features like,

- Mobile Ticket booking for Zoo visit
- Zoo Map - an interactive map, which helps as a virtual tour guide while inside the zoo which helps the visitor to navigate inside the zoo premises. It works in the similar manner as Google Map providing directions to the user.
- Animals Info - In the animal info section, the animals available in the zoo are listed out in the categories as mammals, reptiles and birds. The users can get information about these animals in text and they can also have audio guide i.e voice-based explanations.
- 4D - the users could have a four dimensional view of the animals. It offers audio in Tamil and English. This is designed in a way for the user to view the animal in a 4 - dimensional manner. Almost all the large animals of Arignar Anna Zoological Park are available in this section. This feature will help the children learn more about the animal species in the zoo.

- Events and Games will be available in next release of the application

This application is built in such a way so as to help the visitor to easily cruise through the Zoo and to know more about the animals in zoo even without any other intervention. The mobile application will help handy with voice based explanations of animal's info and the interactive map will help walk through every step of the zoo area. Zoo map is built comprehensively to show directions right from parking to every animal to rest room to coffee shops.

In the upcoming release, Vandalur Zoo mobile application will share its events and few interesting games for the public to participate and promote eco-awareness. Arignar Anna Zoological Park, Vandalur is one among the world renowned zoological parks to offer such a needy service its visitors.

UPCOMING WORKS AND PROGRAMMES

2. 24X7 LIVE STREAMING OF THE ANIMALS

Arignar Anna Zoological Park, Vandalur houses more than 2400 animals of nearly 180 species. The figures of the visitor footfall reveal the interest the people have in wild animals. The statistics shows that more than 90% of the visitors are from Chennai and nearby places. Arignar Anna Zoological Park, Vandalur being one of the largest zoo in South East Asia is a famous destination amongst the Domestic and Foreign tourists. But many do not get the opportunity to visit the zoo for varied reasons. Many visitors who come from long distances have expressed that they have to travel quite long to Chennai to see the wild animals.

In order to address the long time demand of the public from various parts of our state - Tamilnadu and other states of our country, **for this first time in the world with more than 10 animals,** Arignar Anna Zoological Park, Vandalur had introduced **Live Streaming facility** of the most popular animals through the zoo website www.aazp.in for free of charge. This facility is planned to be introduced in April 2018.

To make this facility operational the following activities were carried out,

- feasibility study was conducted
- important animal enclosures were identified
- Optical fiber cables were laid out to link the pivotal points with the central server

- High Definition cameras were placed at the identified animal yards through high bandwidth seamless internet, the centralized server was connected to zoo website

Presently 15 animals are available through Live streaming, they are - two yards of Indian Gaur, Lion Tailed Macaque, White Tiger, Two yards of Bengal Tiger, Lion, Leopard, Sloth Bear, Crocodile, Hornbill, Elephant, Hippopotamus, Chimpanzee and Nilgiri Langur.

The major benefits of the Live streaming facility are -

- Live streaming through cameras helps in showcasing the animal collection and the animal exhibits.
- It also helps in promoting the Zoo and sharing the exhibit with people from all over the world.
- This will help to increase the visitor footfall to the zoo and has also help in the promotion for the Zoo.
- In addition, they can be used for study and scientific research.
- Introduction of this facility at Arignar Anna Zoological Park, Vandalur has helped the zoo to gain popularity. This was also a trending news in the social media.

3. ZOO AMBASSADOR PROGRAMME FOR SCHOOL CHILDREN

The Zoo School of Arignar Anna Zoological Park, Vandalur had introduced a new type of education-cum-entertainment camp for children enabling them to become 'Zoo Ambassadors'. The Zoo School had organized an interactive session by experts, who exposed the children about topics related to the conservation, zoo, mammals, reptiles, birds and butterflies.

This Programme will be introduced as a Summer Camp activity of the Zoo School in the month of April 2018. The Programme was named as "Zoo Ambassador" and it was scheduled for four days (9 a.m. to 12.30 p.m.). Five batches with 30 children in each batch were taken up for this Programme. On successful completion of this Programme, the children were awarded the title as 'Zoo Ambassadors of Vandalur Zoo.' They also got zoo passport for free visits up to 10 times for a year. They will also get the zoo newsletter free for a year. They can contribute to the Zoo Ambassador column of the newsletter. The registration of the camp will be hosted in the zoo website with an online portal. It is expected to have an overwhelming response for this the Summer Camp of Zoo Ambassadors 2018.

The objective of the summer camp is to provide an opportunity for the students to learn about animal species, zoo activities and nature conservation. The students will be provided with a kit that included a bag, an activity book (in English), a descriptive book (in Tamil), note pad, pen and a cap, which will help the students during their field sessions. The four days were divided as Mammals day, Reptiles day, Birds day and Butterfly day. Each of these sessions were handled by the subject experts from various reputed institutions and organizations like TANUVAS, SACON (Coimbatore), Snake Park, Madras Crocodile Trust, NGOs were invited. The Biologists and the Veterinary Doctors of AAZP accompanied the experts and the students.

ANIMAL ADOPTION DURING 2017-18

To create love, affection, compassion and kindness among public towards animals the animal adoption programme was launched at AAZP. The feeding cost of Zoo inmates per day have been calculated and published. According to the paying capability of the public one can adopt any animal species for any number of days, weeks, months and years.

Contributors for Animal adoption

Name of the adopters	Contribution(INR)
Varalekshmi madusudanan	482682
SBI Vandalur	199733
TNPL	185973
D.Saraswathi	10000
Ganga Chemicals	8800
Ganga Chemicals	5000
R.Vijalakshmi	3211
G.Gopikrishnan	3000
G.Krishnan	700

POSTINGS, TRANSFERS, TRAINING, RETIREMENT

NEW POSTINGS TO AAZP

S.No	Name	Designation	Date of Joining	Remarks
1	S.Yuvaraj IFS	Addl.PCCF & Director	03.07.2017	Joined as Director, AAZP
2	S.Sudha IFS	Deputy Director	28.07.2017	Relieved from Tiruvannamalai Division as DFO
3	Dr.K.Sridhar	Veterinary Assistant Surgeon	15.04.2017	Deputed from Animal husbandry department
4	R.Ravikumar	Drafting officer	30.06.2017	Promoted from JDO
5	P.Lakshmana kumar	Forest Range Officer	24.07.2017	Relieved from Forestry Extension Division ,Chennai
6	N.Babu	Forest Guard	11.08.2017	Promoted and joined as Forest guard from Protection Squad,Chennai
7	S.Udhayan	Forest Guard	11.08.2017	Promoted and joined as Forest guard from Wildlife Warden office ,Chennai
8	S.S.Maran	Forester	01.12.2017	New recruitment
9	Dr.A.M.Nalini	Veterinary Assistant Surgeon	19.03.2018	Deputed from Animal husbandry department

PROMOTIONS / TRANSFER FROM AAZP

Sl. No	Name	Designation	Date of Transfer	Remarks
1	S.Shanmugam	Assistant Conservator of Forests	05.04.2017	Promoted and transferred as DCF, Social Forestry, Chengelpet.
2	M.Madhayan	Forester	20.06.2017	Promoted as Forest Range officer at Arignar Anna Zoological Park
3	N.Jothilingam	Forester	31.07.2017	Promoted and transferred as Forest Range office to TBGP,Chennai
4	N.Ashok kumar	Forester	19.08.2017	Promoted and transferred as Forest Range officer to Forestry Extension Divison, Neyveli

5	Dr.Pradeep	Veterinary Assistant Surgeon	04.10.2017	Transferred to Advance Institute for Wildlife Conservation, Vandalur
6	D.Manivannan	Forest Range Officer	04.10.2017	Promoted and transferred as Assistant Conservator of Forests, Cuddalore
7	K.Sivakumar	Forest Range Officer	04.10.2017	Promoted and transferred as Assistant Conservator of Forests, Ulundurpetai
8	K.Sudhagar	Assistant Conservator of Forests	01.11.2017	Transferred and promoted as Deputy Director to Advance Institute for Wildlife Conservation, Vandalur
9	G.Prasad	Forest Range Officer	11.11.2017	Transferred to Chief Conservator of Forests office , Tirchy
10	V.Kamalaveni	Steno Typist	28.12.2017	Promoted as Steno typist grade I and transferred to Principal Chief Conservator of Forests (Research) Office, Kolapakkam
11	K.Raju	Forest Guard	12.12.2017	Transferred to Advance Institute for Wildlife Conservation, Vandalur

RETIREMENT DETAILS

S.No	Name	Designation	Date of Retirement
1	S.V.Murugan	Assistant Agriculture Officer	30.04.2017
2	N.Karupasamy	Plumber	31.05.2017
3	V.Vedagiri	Animal Keeper	31.05.2017
4	B.Menaka	Sweeper cum Scavenger	30.06.2017
5	E.Munusamy	Animal Keeper	30.06.2017
6	P.Arumugam	Animal Keeper	30.11.2017
7	K.Raveendran	Assistant Executive Engineer	30.11.2017
8	K.Muniyandi	Driver	31.12.2017
9	J.Babu Franklin	Electrician	31.03.2018

STAFF DEATH

S.No	Name	Designation	Date of Death
1	M.Shanthi	Gardner	01.04.2018
2	K.Perumal	Night Watch Man	31.07.2017