

**TIGER & LION SAFARI,
TYAVAREKOPPA,
SHIVAMOGGA
ANNUAL
REPORT
2022-2023**

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1. Report of the officer in Charge

The Tiger and Lion safari, Thyavarekoppa, Shimoga initially it was an area of 27.50 Ha with three safari enclosures namely Lion, Tiger & Herbivorous were started and now the whole Zoo and safari area is extended to 195.00 Ha.

The animals housed in the municipal Zoo of Shimoga were also relocated to this place after Central Zoo Authority of India de recognized its existence.

This zoo has been recognized as a small Zoo with Safari by the Central Zoo Authority of India and now the steps have been taken up by the Zoo Authority of Karnataka for the improvement of this zoo permitting to carry out necessary developmental works to create good infrastructure. This zoo has all the potential to become one of the finest zoos in the country in future days.

2. About Shivamogga

Shivamogga is a large city which is located in the central part of the state of Karnataka, India. The city lies on either side of the banks of the Tunga River. Being the gateway for the hilly region of the Western Ghats, the city is popularly nicknamed as "Gateway of Malnad".

3. History of the Zoo

The foundation stone for Tiger & Lion Safari was laid on 1984 and was established in the year 1988, at Thyavarekoppa village situated 10 Km away from Shimoga city in the Shimoga District of Karnataka State. The total extent of the TLST is 195.00 hectares. It was developed with the financial assistance mainly from ZillaPanchayat, Shimoga and supported by Malnad Area Development Board (MADB), Mysore Paper Mill (MPM) Ltd. Bhadravathi, few voluntary organisations and Karnataka Forest Department (Karnataka forest department), Zoo Authority of Karnataka and Central Zoo Authority.

Zoo

The animals housed in the mini zoo located at Municipal Park of Shimoga city were shifted to TLST Shimoga on December 1992 as per the government of India notification dated 04th August 1992 which derecognized the Municipal Zoo at Shimoga city.

Separate enclosures were constructed for Leopards, Striped Hyenas, Sloth Bears, Jackals, Crocodiles and Porcupine during the year 1996-97. Different varieties of birds and few other small Mammals were also housed in the Zoo.

Zoo displays native and Non native animal species in its natural habitat providing conservation education and experience based tourism activities. At present there are 295 (total animal 392 and 40 species as per Annual inventory 22-23) animals of 32 species. Some of the exotic animals are displayed such as Ostrich, Emu and different Pheasants of the world. Even among the native fauna there is a great diversity comprising of felids, canidae, deer (cervids), reptiles, birds and other beautiful and majestic animals that can be seen in open natural enclosure. Hence, a visit to the Tiger & Lion Safari is quite rejuvenating and rewarding.

Safari

The Tiger & Lion Safari, Tyavarekoppa (TLST) is the second safari established in Karnataka after Bannerghatta Biological Park, Bangalore. It was started with three safari enclosures viz. Lion of 21 ha, Tiger of 20 ha, Herbivore safari of 30 Ha and Gaur safari covering an extent of 30 ha. Shivamogga zoo has 6 tigers with male female ratio of (1:5) 6 lions with (4:2) ratio, herbivores of about 145 numbers of different species and 20 Gaur with the ratio (6:14). Tigers and lions were introduced to the safari from various zoos on their respective safari enclosures.

A diversity of herbivore species like spotted deer, sambar deer, blackbucks, hog deer and Nilgai were introduced to the herbivore safari over the period of time.

Safari Vehicle:

Tiger & Lion Safari has 5 (five) buses of 20 (twenty) seats to take the visitors around the safari, safari experiences a large group of people and to allow uninterrupted service, there are 8 temporary drivers for the safari buses. Two safari jeeps Mahindra Bolero was also introduced to safari during 2018, for the closest view of the animals and presumes privacy for the visitors.

It has also been proposed to change the name of tiger lion safari to sahyadri zoological park and safari.

. Vision:

To inspire public for valuing the presence of living beings in their lives, in turn providing an enjoyable educational experience about wildlife.

5. Mission:

Tiger & Lion Safari will be a dynamic center for animal breeding and exhibit which would inspire people to love care and protect wild habitat.

6. Objectives

- Provides the best possible care for our animals
- Display of wild animals in natural habitat enclosure to connect with the nature
- Animal welfare
- Participating in Conservation breeding programs
- Deliver best wildlife education training and research
- Rescue and rehabilitation of wild animals and birds
- Education and recreation for zoo visitors and tourist

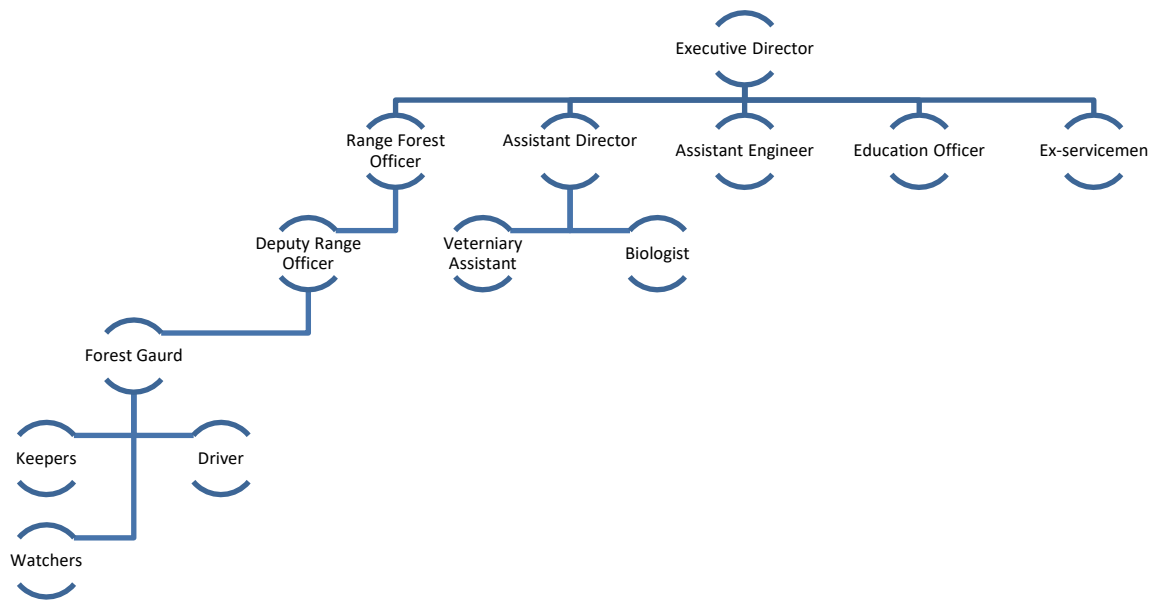
7. About Us:

Sl.No.	Particulars	Information
Basic Information about the Zoo		
1	Name of the Zoo	Tiger & Lion Safari, Tyavarekoppa
2	Year of Establishment	1988
3	Address of the Zoo	Tyavarekoppa, Shivamogga
4	State	Karnataka
5	Telephone Number	9448125892
6	Fax Number	-
7	E-mail address	tigerlionsafari@gmail.com
8	Website	www.shivamoggazoo.com

9	Distance from nearest	Airport: 30 km Shimoga Airport
		Railway Station: 13 km Shivamogga Town Railway Station
		Bus Stand: 10 km K.S.R.T.C Bus Stand, Shivamogga
10	Recognition Valid upto (Date)	September 30.09.2022
11	Category of zoo	Medium Zoo
12	Area (in Hectares)	195.00 Ha
13	Number of Visitors (Financial Year)	Adult : 249599
		Children : 50467
		Total Visitors: 300066
14	Visitors' Facilities Available in Zoo	<ol style="list-style-type: none"> 1. Parking Space 2. Drinking Water (R.O.Plant Installation) 3. Reception Hall 4. Pergolas 5. Children Park 6. Watch and Ward facilities 7. Canteen 8. Rest rooms 9. Museum 10.Security 11.Interpretation center 12. Baby care room
15	Weekly Closure Day of the Zoo	Tuesday
Management Personnel of the zoo		
16	Name with designation of the Officer in-charge	Sri. B.Mukunda Chandra Executive Director & Deputy Conservator of Forests, Tiger and Lion Safari, Thyavarekoppa, Shimoga.
	Name of the Veterinary Officer	Sri. Dr.Murulimanohara
	Name of the Curator	Sri.NageshBalegar
	Name of the Biologist	Sri.Chethan K.V
	Name of the Education Officer	Ms. Sameena Iza

	Name of the Compounder/ Lab Assistant	Sri. Ranganath. B
Owner / Operator of the Zoo		
17	*Name of the Operator	ShriJaveedAkhtar
18	Address of the Operator	Additional Chief Secretary to Government, Forest, Environment and Ecology Department, Karnataka Government Secretariat, Room No.447, 4th Floor, Gate No.2, M.S.Building, Bangalore.
19	Contact details/Phone number of Operator	080-22256722/ 22032509
20	E-mail address of Operator	prsfee@gmail.com

8. Organizational Chart



9. Human Resources

Manpower of the Zoo

Sl.No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Executive Director (Deputy Conservator of Forests)	1	Sri.B.Mukunda Chandra
2	Assistant Director	1	Sri.Dr.Muralimanohara
3	Range Forest Officer	1	Sri. Nagesh Balegar
4	Deputy Range Forest Officer	3	Sri.Yashodhar B.H
5	Education Officer	1	Ms.Sameena Iza
6	Biologist	1	Sri.Chethan K.V
5	Forest Guard	1	Vacant
6	Forest Watcher	3	Vacant
7	Driver	1	Vacant
8	Attender	1	Vacant
Total		12	-

10. Capacity Building of Zoo Personnel

Sl. No.	Name and designation of the zoo personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
1	B.Mukunda Chandra Executive director	Zoo directors conference	January -18-19 2023	Sri Chamarajendra Zoological Garden, Mysore
2	Sameena iza shaik	Zoo directors conference	January -18-19 2023	Sri Chamarajendra Zoological Garden, Mysore
3	Dr.Murulimanohar	Zoo directors conference	January -18-19 2023	Sri Chamarajendra Zoological Garden, Mysore

4	Chethan K.V Zoo Biologist	International Zoo Directors Conference	January -18- 19 2023	Sri Chamarajendra Zoological Garden, Mysore
5	Sameenaizashaik Education Officer	National Capacity enhancement workshop for zoo education officers	February-15- 17 2023	Veer matajijabaibhosale Botanical Udyavan & Zoo, Mumbai
6	Chethan K.V Veterinary Assistant & Biologist	Data Analysis and Visualisation for Scientific Management of Ex-situ Population	November 23 rd to 25 th 2023	Neharu Zoological Park, Hyderabad
7	Chethan K.V Veterinary Assistant & Biologist	International Zoo Directors Conference	January -18 th - 19 th 2023	Chamarajendra Zoological Gardens, Mysuru
8	Chethan K.V Veterinary Assistant & Biologist	Capacity Enhancement Workshop for Zoo Biologists	March 21 st -23 rd	Greens Zoological, Rescue and Rehabilitation Centre

11. Zoo Advisory Committee

a. Date of constitution- Nil

b. Members proposed:

The Addl. Principal Chief Conservator of Forests and Member Secretary, Zoo Authority of Karnataka, Mysore- Chairman

Executive Director, Tiger & Lion Safari, Thyavarekoppa, Shimoga

Assistant Director(V.S), Tiger & Lion Safari, Thyavarekoppa, Shimoga

Range Forest Officer, Tiger & Lion Safari, Thyavarekoppa, Shimoga

Executive Engineer, Bannerghatta Biological Park, Bangalore

c. Dates on which Meetings held during the year: Nil

12. Health Advisory Committee–

Health committee members

Meeting held on 09.03.23

Sl no	Name	Designation
1.	Sri Mukund Chandra .B	Executive Director Tiger & Lion Safari Tyavarekoppa Shivamogga
2.	DrShivayogiYali	Deputy Director Dept of AHVS Shivamogga
3.	DrMadhavPrasad	Professor and Head Dept of Veterinary epidemiology Veterinary College, Shivamogga
4.	DrNagabhushan	Professor and Head Department of Nutrition Veterinary College, Shivamogga
5.	DrRavindra B G	Associate Professor Dept of medicine Veterinary College, Shivamogga
6.	Dr Ravi Raidurg	Associate Professor and Head Dept of veterinary surgery and radiology Veterinary College, Shivamogga
7.	Dr Rajesh S BS	Regional Research Officer IAH & VB, Shivamogga
8.	DrVinay S	Chief Veterinary Officer, Shivamogga wildlife Division, Shivamogga

9.	Dr Murulimanohar	Veterinary officer, Tiger & Lion Safari, Tyavarekoppa,Shimoga.
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13. Statement of income and expenditure of the Zoo

Sl. No.	Year	Revenue Collected (Rs.)	Expenditure (Rs.)
1	2016-2017	17768875.00	24182637.00
2	2017-2018	17596145.00	33317785.00
3	2018-2019	21802750.00	51243119.00
4	2019-2020	26605615.00	76906800.00
5	2020-2021	26601521.00	89591046.00
6	2021-2022	26601521.00	89591046.00
7	2022-2023	42431089.00	87736600.00

14. Daily feeding Schedule of animals

Sl. No.	Name of the animal	Feed item	Quantity	Day of fasting
01	Carnivores	Carabeef Chicken,Liver	-	Evening Tuesday
02	Herbivores	Concentrates,Wheatbran,Vegetables ,Green leaves,Fruits ,Green grasses ,Grains ,Grasses ,Lucerne	Morning Vegetables,concentrates	Green grass fodder
03	Birds	Grains,greenleaves,fruits ,vegetables	Morning	-
	Birds of prey	Chicken ,fish	-	Evening Tuesday
04	Reptiles	Chicken ,rabbit,egg ,Carabeef		
	Python		Once in a week	

	Crocodile		Once in a week		
	Monitor lizard		Daily		Tuesday

15. Deworming, Vaccination and health Supplements Schedule(Zoo/RC/Safari)

Month	De-wormer	Prophylaxis	Vaccine	Health Supplements
January	Pyrental Palmate/Closantel/Pl ozin (3 in 1)	-	-	calcium Supplements
February	-	-	Cats CRP +ARV (felines)	-
March	-	Surral/ Triquin		Iron Supplements
April	Oxyclosanide, Levam izole/ Plozin/Closental	-	FMD,HS,BQ (Gaur & DEERS)	Septillin
May	-	-	-	Nutriccoat advance + Calcium Supplement
June	-	-	DHPPi+L +ARV (Canines)	-
July	Albendazole /Fenbendazole	Surral/ Triquin		Verol Syrup/ Drops/ Mineral Mixture
August	-	-	-	-
September	-	-	FMD,HS,BQ (Gaur,deers)	Liv 52/Livotas+ calcium Supplement
October	Ivermectin/ Fenbendazole	-	-	-
November	-	Surral/ Triquin	-	Proviboost syrup/ Drops/ Mineral Mixture
December	-	-	HS	Immunol

16. Disinfection Protocol Format

Sl no	Animal	Daily	Weekly	Monthly	Quarterly	Annual
		Holding house and periphery	water tank/trough/pond cleaning	Anit viral spray	Gas burning	Pesticide sprays
1	Lion	Daily	I week	II week	Jan / May/ Sep	Mar
2	Tiger	Daily	II week	I week	Feb/ June/ Oct	Apr
3	Zoo				Mar/ July/ Nov	May
4	Leopards	Daily	III week , Mon	IV week, Mon		
5	Sloth Bear	Daily	III week, Wed	IV week, wed		
6	Hyena/ Jackal	Daily	III week, Thu	IV week, Thu		
7	Crocodile	Daily		IV week, Fri Pond cleaning and spray		
8	Python	Daily	III week, Wed	IV week, Wed		
9	Ostrich, emu	Daily	III week, Fri	IV week, Fri		

10	Other mammals and birds	Daily	III week, Sat and Sun	IV week, sat and Sun		
11	Duck pond area				Mar / July/ Nov Pond cleaning, anti viral spray and gas burning	
12	Herbivore safari	Daily	IV week	III week	Apr/ Aug/ Dec	

17. De-worming Schedule of animals

Sl.No.	Species	Drug used	Month
1	All animals	Closantal	Jan
		Oxyclozinidelevamizole	April
		Fenbendazole	July
		Albendazole/ivermectin	Oct

18. Health Check-up of employees



Dental check up for zoo employees



KFD vaccines for zoo employees

19. Population management of captive spotted deer and Sambar deer

A translocation of spotted deer and sambar deer to shetihalli wildlife sanctuary





20. Developmental and Maintenance work for the year 2021-22





Construction of Sloth Bear enclosure and holding house at Tiger and Lion safari, Tyavarekopa during 2022-23





Construction of Toilet Block near exit at Tiger and Lion safari, Tyavarekopa during 2022-23



Construction of Jackal enclosure and holding house at Tiger and Lion safari, Tyavarekopa during 2022-23



Construction of Road inside Gaur safari at Tiger and Lion safari, Tyavarekopa during 2022-23



Providing Chain link Mesh along the outer boundary (Block 1V 1330.00 to 2920.00= 1590.00m) during 2022-23



Construction of Zebra enclosure and holding house at Tiger and Lion safari, Tyavarekopa during 2022-23



Construction of Toilet Block (next to nilgai enclosure) during 2022-23



Construction of Assamese Macaque enclosure and holding house at Tiger and Lion safari, Tyavarekopa during 2022-23



Construction of toilet block near tiger enclosure) during 2022-23





Construction of Blackbuck enclosure and holding house at Tiger and Lion safari, Tyavarekopa during 2022-23

21. Education and Awareness Program during the year 2022-23

Special Events



A one-day butterfly workshop was conducted for Sahyadri college students on the behalf of Shivamogga zoo. The workshop aimed to educate students about the various species of butterflies, their habits and habitats, and their role in our ecosystem. The workshop began with a brief introduction about butterflies and their importance in nature by SammilanShetty, Founder of butterfly park, belvai. The students were then divided into groups and taken on a tour of the Zooto locate and observe different species of butterfly.



A one-day photography workshop was conducted by the shivamogga zoo, where the resource person Mohammed Jamshed, a professional wildlife photographer, was invited to

train the participants. The workshop aimed to help photography enthusiasts learn the art of wildlife photography.

The workshop began with an introduction to the fundamentals of photography, including camera settings, composition, and lighting. Participants were provided with a brief on different camera types and their lenses, to aid their understanding of how to capture wildlife effectively. Soon afterward, Jamshed shared insights on how to take the best photographs of animals, their behaviors, and the right angles for taking shots.

Participants were then taken on a tour of the zoo and assisted in capturing pictures of a range of animals, including tigers, lions, elephants, monkeys, and birds. Jamshed shared tips on how to get a clear shot without disturbing the animals, along with ways to capture their natural habitat.



To mark World Water Day,(March 22) the shivamogga zoo organized a special event for government school students. The aim of the event was to raise awareness about the importance of water conservation and to highlight the value of water resources. The event was conducted by a resource person named Pasha, who is a geologist and expert in water management. Pasha began the session by discussing the significance of water and how vital it is for all living things. He engaged the students in understanding the importance of water conservation and how it affects their daily lives.



To celebrate World Bear Day, the shivamogga zoo organized a special event for ATNCC college shivamogga. The aim of the event was to raise awareness about bear conservation and to highlight the value of these beautiful creatures. The zoo invited a special resource person named ShravanSutthar, who is a senior research assistant with the Holemathi Nature Conservation Foundation. Shravan began his session by discussing the different types of bears, including the Asiatic black bear, the sun bear, and the sloth bear, and how their habitats are threatened by human intervention. Sharavan then led the students on a tour of the zoo's bear enclosure, explaining the different behaviors of the bears and how they interact with each other. He pointed out the different features of the bear's habitat and how it is designed to mimic their natural environment.



To celebrate Environment Day, the shivamogga zoo organized a special program for National public school students to raise awareness about the importance of reducing waste

and composting. The program included several activities focused on the 3Rs - reuse, reduce, and recycle - and composting.

In the reuse activity, students were given various items that can be reused, such as plastic bottles, tin cans, and newspapers. They were encouraged to come up with creative ideas on how to reuse these items instead of throwing them away. Finally, in the composting activity, the students were taught how to turn organic waste into compost. They were shown a demonstration of how to make a compost bin and were encouraged to bring organic waste from home or school to add to the compost bin.



World honey bee day celebration: Shivamogga zoo invited government school to take part in the world honey bee day celebration.



GC meeting -2022 held at Shivamogga Zoo

Wildlife week celebration (2 October -8 October)

Wildlife week is a highly anticipated event in most zoos all over the world. During this week, zoos try to raise awareness about preserving endangered species and their natural habitats, educate visitors on different animal species, and foster appreciation for the biodiversity of the planet.



Wildlife awareness program

Keeper talk



Snake awareness Program

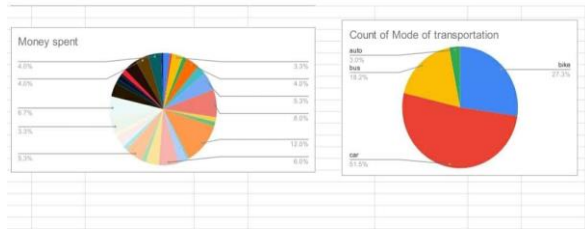
Creature –Feature activity

Visitors Interaction



Identifying the "animal pugmark" activity conducted for the visitors

Name	Age	Gender	Activity	Duration	Count
Deepthi	18	Female	to watch animals	4000 2hours	8
Aashay	18	Male	to watch animals	4000 2hours	2
padmap	18	Female	to watch animals	1000 1hours	1
padma	18	Female	to watch animals	4000 2hours	5
amli	18	Female	to watch animals	1000 1hours	3
adithyana	18	Female	to watch animals	1000 1hours	6
Aashu	18	Male	to watch animals	1000 1hours	2
ki	18	Female	to watch animals	1000 1hours	14
Ansh	18	Male	to watch animals	1000 1hours	4
surupa	18	Female	to watch animals	1000 1hours	4
gaganathi	18	Female	to watch animals	1000 1hours	3
judi	18	Female	to watch animals	1000 1hours	5
Laksh	18	Female	to watch animals	1000 1hours	4
chaitanya	18	Female	to watch animals	1000 1hours	6
pratik	18	Male	to watch animals	1000 1hours	4
praveen	18	Male	to watch animals	1000 1hours	9
urasa honey	18	Female	to watch animals	1000 1hours	5
vishwanath	18	Male	to watch animals	1000 1hours	7
aksh	18	Male	to watch animals	1000 1hours	7
arav	18	Male	to watch animals	1000 1hours	3



Demography survey of visitors



Awareness program on Cheetha reintroduction(India) for visitors





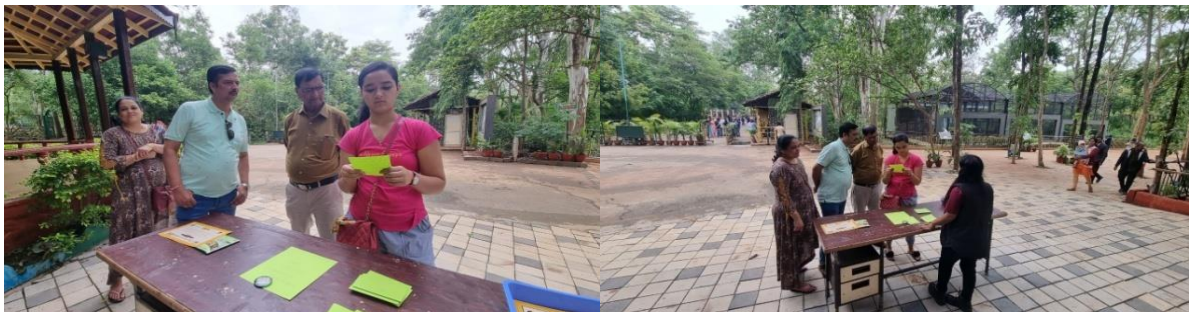
International Compost Awareness week



Awareness program on endangered animals for the organized school groups



Snake awareness program for visitors



Animal Quiz activity for visitors



Snake awareness programme for visitors

OUTREACH PROGRAMS

A zoo outreach programme is a way for a zoo to extend its educational outreach beyond the walls of the zoo itself. These programs can take many forms and may include school visits, community presentations, mobile exhibits, and even virtual events. The goal of a zoo outreach program is to engage people of all ages in learning more about the animals housed at the zoo, as well as to promote conservation efforts and raise awareness about environmental issues.



An outreach program conducted for blind students through a touch and feel program is a great way to introduce them to the world of animals and natural objects. Different birds Eggs, feathers and deer antlers are all excellent examples of objects that can be included in such a program.

The program started with a brief introduction to the sense of touch and its importance for blind people. Next, participants could be introduced to different types of eggs, feathers and antlers allowing them to touch and feel the texture and shape of each wildlife trophies.



The Snake awareness program was conducted for the students of Gadikoppa Higher primary school, Shivamogga



Bird Watching and nature walk program was conducted for the abandoned senior citizens from JeevanaSanjeRudrashrama, Shimoga





Snake awareness program was conducted for the orphan students at MadavaNele, Shimoga



Snake awareness program for orphan students of Taye mane orphan home



Anti rabbies awreness program was conducted for girideepam schoolstudents

ZOO CAMP

Winter zoo camps: Camps are outdoor educational programs designed for children during winter. These camps offer a unique opportunity to learn about wildlife, conservation, and animal care in a fun and interactive setting. Children typically spend their time participating in various activities such as animal encounters, zoo tours, craft making, games, and more. They provide an exciting way for children to spend their winter break while learning about the importance of wildlife conservation and appreciation for nature.



Bird watching



Face Painting



Introduction to veterinary equipments



Be a researcher activity



Education program for visitors by students



Visit to Hippo enclosure

Summer Camp: Zoo summer camp is an educational program designed for children during summer break. These camps provide a unique and exciting opportunity for children to learn and experience different aspects of zoo life. Children typically spend their time participating in various activities such as animal encounters, zoo tours, hands-on activities, games, and more. Along with fun activities, the camps also aim to educate children about animal welfare, conservation, and ecology. These camps allow children to develop an appreciation of wildlife and learn how to be good stewards of the environment.



Presentation on reptiles

zoo design activity

Be a zoo keeper camp: Be a zoo keeper camp is a program that offers an immersive experience for children or teenagers who are interested in learning about the responsibilities and daily activities of a zoo keeper.

During the camp, participants work alongside trained zookeepers, learning how to feed animals, clean enclosures, and provide enrichment activities for animals under the zoo's care. They may also receive hands-on training in animal handling, such as learning how to handle small mammals or reptiles

Be a zoo keeper camps aim to inspire a love and appreciation for animals, while also educating and empowering young people to become advocates for animal welfare and conservation.



Visit to hippo enclosure

Visit to herbivore safari



Education program for zoo visitor



Collecting pellets of herbivores

Staff Training programs

A zoo staff training program is comprehensive training offered by zoos for their staff members. The program is designed to equip zoo employees with the knowledge and skills needed to carry out their roles effectively. The training typically covers a variety of topics including animal care, exhibit design, visitor experience, safety and emergency procedures, conservation practices, and more.



Capacity building program for drivers



Workshop on world zoonosis day for zoo staff

22. Seasonal special arrangement for upkeep of animals

1. LANGUR FEEDING ENRICHMENT



Langur feeding enrichment had conducted to increase the activity and enhance the feeding skills of the langurs in the captive condition, different fruits, and leaf vegetables are hidden inside the coconut shells tied with the coconut ropes and hung in the langur enclosure. This enrichment successively increased the activity of the animal as well as increased the feeding time compared to normal feeding time.

2. SLOTH BEAR ENRICHMENT



Sloth bear feeding and olfactory enrichment conducted to increase the activity and enhance the olfactory organs of the animals, Honey smeared on a tree trunk and logs at various heights, this enrichment increased the animal's overall activity was observed.

3. HYENA AND JACKAL ENRICHMENT



Hyena and Jackal feeding enrichment had conducted where pedigree (dog food) is filled inside the dry coconut shell and tied then given to the animal this enrichment increased their activity time and also enhanced the olfactory organs of the animals was observed.

4. FOWLS AND PHEASANT ENRICHMENT



The natural environment had created (was correct) in the Fowls and Pheasant enclosures by planting different plants, providing logs, perching sites, and also leaf litters, presence of leaf litter is very important for Fowls and Pheasants because these birds are ground feeders so the presence of leaf litter increased their feeding behaviors and scratching ground for insects which are naturally develop in leaf litter. And this also provides natural nutrition for birds.

5. HIPPOPOTAMUS ENRICHMENT



Hippopotamus feeding enrichment was conducted with different fruits and corn cob packed inside the cardboard box with paddy hay and given to animals, this enrichment enhanced their olfactory organs, inspecting behaviors observed.

6. DEER'S ENRICHMENT



Hanging fodder in the deer's enclosure had carried out to enhance the natural behaviour of the deer species

7. LEOPARD ENCLOSURE ENRICHMENT





New leopard enclosure enrichment had constructed using tree stumps and logs. Leopards are arboreal species and most of their activity and behaviors depend on their habitat so because of that in the new leopard enclosure to mimic the natural habitat we have constructed tree connectivity for their arboreal movement and this enrichment construction enhanced their behavior lot, as well as animal health and it also keep animal active entire day.

8. LION ENRICHMENT



Lions live in dry and semi-arid regions with scrub and deciduous forests with undulation and rocky hills of the world, so in the new lion enclosure we have constructed natural habitat-like habitat using locally available rocks and different grass species, these enrichment animals are utilizing very much and expressing their natural behaviors in the captive condition.

9. TIGER ENRICHMENT



Royal Bengal tiger is one of the big cats found in India and it is a habitat generalist species it enjoys the wetlands in the wild. So because of that, we have constructed a waster cascade in the new tiger enclosure at the viewing area for the tiger to enjoy and express natural behaviors, and also visitors enjoy the tiger behaviors in the pond.

10. PARAKEET ENRICHMENT



Feeding enrichment a vertical hanging device made from Bamboo by this enrichment device Parakeet's feeding time increased and feeding skills also enhancement were observed.

10. LANGUR ENRICHMENT

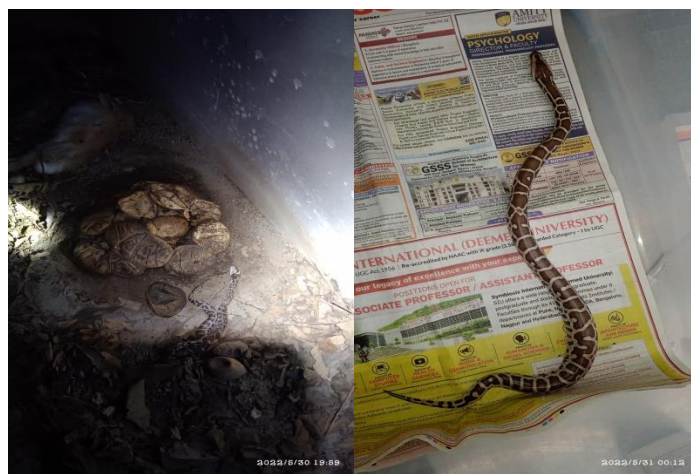


Langur in the wild eats various fruits, leaves, and flowers to fulfil their nutritional requirements for their activities like body movements, play, fighting, mating, parental care, etc. In captivity, we provide only the commercial crop fruits and vegetables so they may not sufficient nutrition or may not have so nutritional content which is present in wild ones so to overcome this occasionally we provide different wild fruits, leaves which langurs commonly feed on it, and this also helps in their nutritional part as well as it enhances their wild behaviors in captivity (grammatical mistakes)

A STORY OF-INDIAN ROCK PYTHON BREEDING



Indian Rock Python (*Python molurus*) is a **Near Threatened (IUCN)** species that live surrounding wetlands and rocky outcrops. In our zoo, we housed 4 pythons (1:3). On A sunny March day our snake keeper Mr.Nagappa noticed one snake sitting in a coil shape during his routine animal observation in the morning and he had never seen a snake sat like this before and he also notice some white thing near its head and he immediately called Zoo Biologist and informed what he saw, when we went to saw snake laid egg and it incubating and protecting, we all happy because which is 1st time happened in our (for the first time in the history of zoo and we informed to Veterinary Doctor and zoo Director. We provide a safe barrier and dry leaf litter surrounding the snake without making any disturbance to the snake.



After 61 days of incubation naturally, eggs hatched in the night we immediately took them out from the hatched place total of 32 eggs were present, and in that few eggs hatched, only 3 babies survived. Babies are taken care by the Biologist. This is a remark successful breeding of Python in the history of Tiger and Lion Safari.

REPTILES MANAGEMENT DURING MONSOON SEASON



Monsoon is the toughest season for reptile management in captive because during monsoon in Tiger and Lion Safari, we receive heavy rainfall and sometimes we didn't receive a good amount of sunlight for up to 2-3 days, (we shouldnot be used) so during these days, reptiles especially Snakes, Turtles and Tortoise need attention and care because reptiles are cold-blooded animals they need sunlight (UV-A and UV-B) for their vitamin synthesis and as well as for their metabolism activity so during monsoon season and also in cold days of winter season we provide artificial light which emit UV-A and UV-B rays based on the species and body size we give artificial light with time intervals in a day and we maintain all the parameters and also record the data for better management.

23.LIVE F0EED UNIT

In March we started planning of setting up of live feed unit of worms for Fowls, Pheasants, and Sloth bears. In the initial stage, we brought some of the mealworms from Mysore Zoo to set up the founder population of worms we successfully bred the worm within the month and we started breeding more to get a good amount of worms, occasionally or twice in a month we provide mealworm for birds and to the Sloth bear as enrichment.



In May we started Mice live feed unit for our baby pythons we had successfully bred the mice at present more than 30 mice we are housing and for our baby pythons we feed one mice per week and based on requirements we breed mice and breeding and stock record are maintained in the live feed unit, in future we have plan for setting up of Rat and Hamster breeding unit for our future serpentarium. (we, must be avoided)



24. ANIMAL EXCHANGE PROGRAM

SL.NO	Date	Species	Sex (M:F)	Received From
1.	26.07.2022	Indian Gaur	3:0	Mysuru Zoo
2.	02.08.2022	Indian Gaur	3:0	Mysuru Zoo
3.	09.08.2022	Indian Gaur	1:1	Mysuru Zoo
4.	16.08.2022	Indian Gaur	1:2	Mysuru Zoo
5.	23.08.2022	Indian Gaur	2:1	Mysuru Zoo
6.	30.08.2022	Indian Gaur	2:0	Mysuru Zoo
7.	06.09.2022	Indian Gaur	2:1	Mysuru Zoo
8.	13.09.2022	Indian Gaur	0:1	Mysuru Zoo
9.	13.09.2022	Mandarin Duck	1:1	Mysuru Zoo
10.	23.09.2022	Indian Gaur	0:1	Mysuru Zoo
11.	21.10.2022	Striped Hyena	0:2	Hampi Zoo
12.	22.11.2022	Bengal Tiger	0:2	Mysuru Zoo
13.	06.11.2022	Black kite	0:0:1	Rescued from Shimoga city
14.	08.11.2022	Brahminiy kite	0:0:1	Rescued from Shimoga city
15.	13.11.2022	Black kite	0:0:1	Rescued from Shimoga city
16.	18.11.2022	Brahminy kite	0:0:1	Rescued from Shimoga city
17.	22.11.2022	Bengal monitor Lizard	0:0:1	Rescued from Tyavarekoppa
18.	21.02.2023	Lion	2:0	Gadag Zoo

In the year 2022-23, a major exchange program had done by the zoo team, and the highest number of individual animals shifted this year. A major exchange happened with

ShriChamarajendra Zoological Garden (Mysuru Zoo). This year zoo started a new Gaur safari for those 21 Gaurs were translocated from MysuruZoo to Tiger and Lion Safari, without the use of anaesthesia and with no single mortality. This animal exchange had made history in the state of Karnataka as well as in India. A total of 33 individuals of 8 different species of animal's translocation and rescue are successfully done by the zoo. The animal exchange happened in the year 2022-23 a list is given below.



Indian Gaur Translocation from Mysore Zoo to Tiger and Lion Safari.

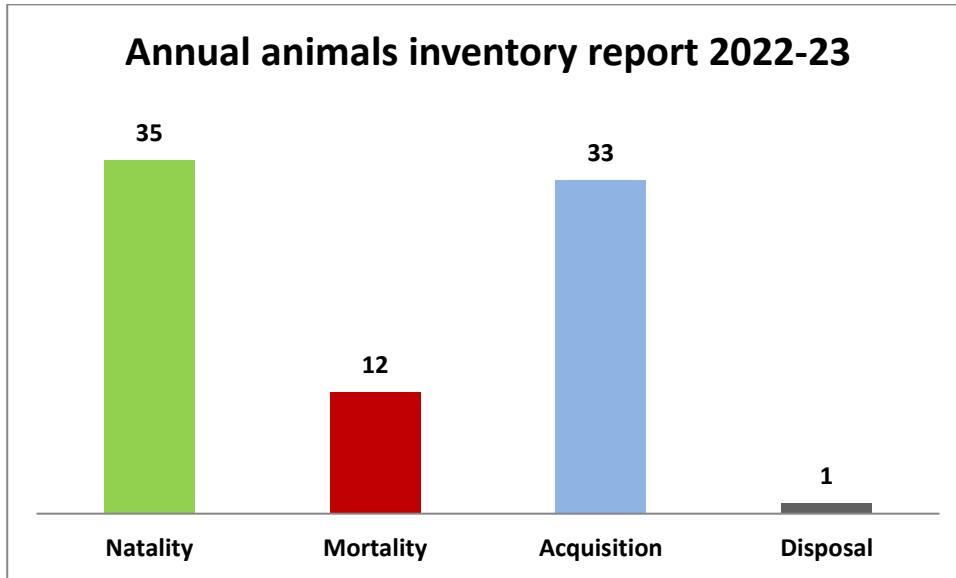


Striped Hyena Translocation from Hampi Zoo to Tiger and Lion Safari.

25.ANNUAL ANIMAL INVENTORY

Sl. No.	Nativity	Mortality	Acquisition	Disposal
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1.	35	12	33	1
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Sl. No.	Natality	Mortality	Acquisition	Disposal	Total individuals
1.	8.92%	3.06%	8.41%	0.25%	392

26.. ANIMAL HEALTH CARE

Zoo Hospital, Tiger and Lion Safari, Shimoga

The Zoo hospital is the epicenter of treatment and care for the variety of animals housed in Tiger and Lion Safari. It is a small dispensary equipped with basic infrastructure and facilities. It has a basic diagnostic laboratory and an operation theatre set up. The hospital is attached to an in-patient/quarantine facility for large carnivores. This facility is managed by a Veterinary Officer.

Staff:

1. Veterinary Officer
2. Biologist/ Veterinary Assistant

Facilities available at zoo hospital:

- **Operation Theatre:** Operation Table, Stretcher, Crash Cart, OR lamp and Other minor Emergency Rescue Equipment's
- IP Camera Solar For Observation And Recording
- Oxygen Cylinders And Masks
- Transit Cages Pet Carriers

Diagnostic Laboratory

- Blood Auto Analyzer
- Serum Semi Auto Analyzer
- Olympus Compound Light Microscope
- Kits And Equipment's For Analysis
- Centrifuge
- Autoclave
- Water Bath
- Refrigerator
- Deep Freezer
- 3.5 Kva UPS And 5 Kva Generator For Uninterrupted Electricity
- Ultra Violet Lamps
- Deep Freezer Unit
- Multiple patient monitoring system

Medication purchased and stocked at zoo hospital:

The Zoo hospital has a stock room with a variety of medications for emergencies, treatment and prophylaxis.



Tranquilizing Equipments:

The Zoo Hospital is equipped with a standard set of tranquilizing equipments and drugs that are used for drug delivery and immobilization of animals under various situations.



Blow Pipe Projector and Syringes



Tranquilizing Projector and Syringes



Tele-Dart Projector with its accessories.(RD 706)

LABORATORY EQUIPMENTS FOR DISEASE DIAGNOSIS:

The Zoo hospital has a standard laboratory set up for basic hematology, serology and disease diagnosis.



Centrifuge unit



Semi auto-analyzer for serological works



Auto analyzer for blood parameters



Electrical compound microscope

Equipment's proposed for operation theatre:

1	Veterinary scrub station	1	Cleaning
2	Veterinary Dental scaler and polisher	1	Teeth and oral health
3	Veterinary endoscope	1	Diagnosis
4	Veterinary ultrasonography unit	1	Diagnosis
5	X ray machine portable	1	Diagnosis
6	CR system with accessories and cassettes	1	Diagnosis
7	Laser physiotherapy unit	1	Healing
8	IR thermogram camera	1	Diagnosis

9	Complete online UPS systems with accessories 5 KVA	1	1 unit
10	20 KVA generator with wiring	1	1 unit
11	Stretcher for shifting animals with tire base, hydraulic lifting	1	To lift animals in field conditions and transport to ambulance
12	Special surgical instruments	Set	Perform surgeries
13	Instrument trolleys	4	Surgery / treatment
14	Orthopedic set		Orthopedics
15	Gas vaporizer with portable stand and delivery unit workstation	1	Anesthesia
16	Patient monitoring system	1	Monitoring
17	Thermo cautery	1	Arrest bleeding
18	SPO2 unit	1	Health monitoring
19	Otoscope	1	Examination
20	Laryngoscope fiber optic	1	Examination
21	Ophthalmoscope	1	Examination
22	Small animal restraint squeeze cages – SS 304	2	Restraint
23	ET tubes size 1 – 15	1 set each	Ventilation
24	Suction pump	1	Aspiration
25	Egg incubator	1	Incubation
26	Infant incubator	1	Neonatal care
27	Air conditioner	2	OT sterility
28	Oxygen concentrator	1	Oxygenation
29	Torch high beam	1	Emergency
30	Portable UPS half hr back up	1	Emergencies in field
31	Post mortem kit	1	PM
32	Hair blow drier	1	Instant heating of animals suffering from cold shock
33	Centrifuge	1	Lab purpose

34	Compound electric Microscope with camera	1	Lab purpose
35	Veterinary defibrillator	1	Revival of patient
36	Shelves, cupboards and furniture	All rooms as per plan	Storage
37	Washing machine	1	Cleaning clothes
38	Veterinary ambulance : Swarajmazda mini bus, complete A/C, interiors and convertible treatment animal care unit, refrigerator mini, generator 2kv, interiors	1	Treatment and transportation

Treatment and health care management undertaken in the zoo

A.Rectal prolapse in a male Indian rock python :In the month of December ,an adult male Indian rock python had protruded mass in the caudal aspect of the tail,it was anaesthetised with diazepam 0.1mg/kg and 15 mg /kg ketamine , on close examination it was confirmed that the rectum was prolapsed out and prolapsed mass was washed with normal saline and it was immersed in saturated mgso4 solution mass was reduced smoothly and it was repositioned back to normal position, after that vet wrap was wrapped tightly to stop pooping it back out again followed by Enrofloxacin @ 5mg/kg .the snake was kept under observation .the result were quite convincing as there was no report of any recurrence even after 5 days.



B. Metritis in female tiger : Tiger was anorectic and lethargic, blood picture revealed high white blood cells count i.e.26,000/mm³,abdominal ultrasonography revealed thickening

of uterine wall. she was treated with extensive fluid therapy and antibiotic i.e .Ceftriaxone tazobactam -20mg/kg bodyweight intravenously twice a day for 7 days .blood examination showed reduction of white blood cells count to normal range .Tiger started to consume meat after 12 days.also pantoprazole iv and B complex administration helped her to recover from the condition.



C. Trimming of fractured antler in a sambar deer: a male sambar deer had an injury on right antler ,the animal weighed approximately 180 kg it was sedated with xylazine @ 2mg/kg BW, & ketamine @ 3mg/kg BW ,the animal was in lateral recumbency in 15 minutes ,the deformed antler was cut above the base with hacksaw blade and dressed ,injections Doramectin and lonactingceftiofur injections were given along with supportive medications

,the animal was revived with yohimbine 0.125 mg/kg ,animal was revived in 10 minutes and the wound had healed in a week.



D .Gaur safari :gaur safari is the first of its kind in India ,it has housed 22 gaurs ,to ensure the welfare of gaurs ,feeding troughs have been provided with foot dips which contains kmno4 solution to prevent foot rot and mist sprinklers have been installed to manage heat stress during summer.



27. List of free living wild animals, insects and birds within the zoo premises.

Birds	Mammals	Reptiles	Insects	Amphibians
Red whiskered bulbul	Sloth bear	Spectacled cobra	Daddy long leg spider	Dataphrynusmelanotictus
Red wented bulbul	Palm squirrel	Wolf snake	Marbled moth	Minervarya species
Orange minivet	Toddy cat	Green wine snake	Owlet moth	Common tree frog
Scarlet minivet	Small Indian civet	Common krait	Danid egg fly	Bicolored frog
Pradise fly cathcher	Pangolin	Rat snake	Crimson rose	Srilanka painted frog
Golden oriole	Leopard	Bhramini skink	Common rose	Skittering frog
Wabblers	Spotted deer	Monitor lizard	Common crow	Wynad bush frog

Birds	Mammals	Reptiles	Insects	Amphibians
Jungle Babblers	Sambar deer	Bengal monitor lizard	Southern bird wing	Nobe handed bush frog
Leaf bird	Bonnet macaque	King cobra	Jeepsy moth	-
White cheeked barbet	Wild bore	Russell's viper	Common emigrant	-
Copper smith barbet	Common languor	Garden lizard	Chocolate phansy	-
Brown headed barbet	Royal Bengal tiger	Wolf snake	Tawny costar	-
Black drongo	Elephant	-	Blue leopard	-
Rocket tail drongo	Spotted deer-	-	Common tiger	-
Ashy drongo	Rusty spotted cat-	-	-	-
Fire brested fly cather	Indian golden jackal-	-	-	-
Orange thrush	-	-	-	-
Ashy priniya	-	-	-	-
Shrike	-	-	-	-
Bushchat	-	-	-	-
Forest wagtail	-	-	-	-
White throated kingfisher	-	-	-	-
Hoopie	-	-	-	-
Greater flame back wood pecker	-	-	-	-
Lesser flame back	-	-	-	-
Pigmy hog woodpecker	-	-	-	-

Birds	Mammals	Reptiles	Insects	Amphibians
Yellow crowned woodpecker	-	-	-	-
Rufoustreepie	-	-	-	-
Blue monarch	-	-	-	-
Tailor bird	-	-	-	-
Sun bird	-	-	-	-

28. Animal Adoption Scheme

Adoption details

Sl. No	Year	No of people adopted	Adoption amount collected through,NEFT,Cheque and cash	Adoption amount collected through ZAK app	Total amount
1	2022-23	15	124600.00	3411.00	128011.00

zbj

29. List of Surplus Animals

Sl. No.	Common name	Scientific name	Excess stock M:F:U	Remarks
Reptiles				
1.	Indian Rock Python	<i>Python molurus</i>	0:0:2	
Birds				
Mammals				
1.	Spotted deer	<i>Axis axis</i>	10:10	
2.	Sambar deer	<i>Cervous unicolour</i>	5:5	
3.	Nilgai	<i>Boselaphustragocamelus</i>	4:4	
4.	Indian Golden Jackal	<i>Canis aureus</i>	1:1	
5.	Leopard	<i>Panthera paradus</i>	2:1	

6.	Asian palm civet	<i>Paradoxurus hermaphroditus</i>	2:2	
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