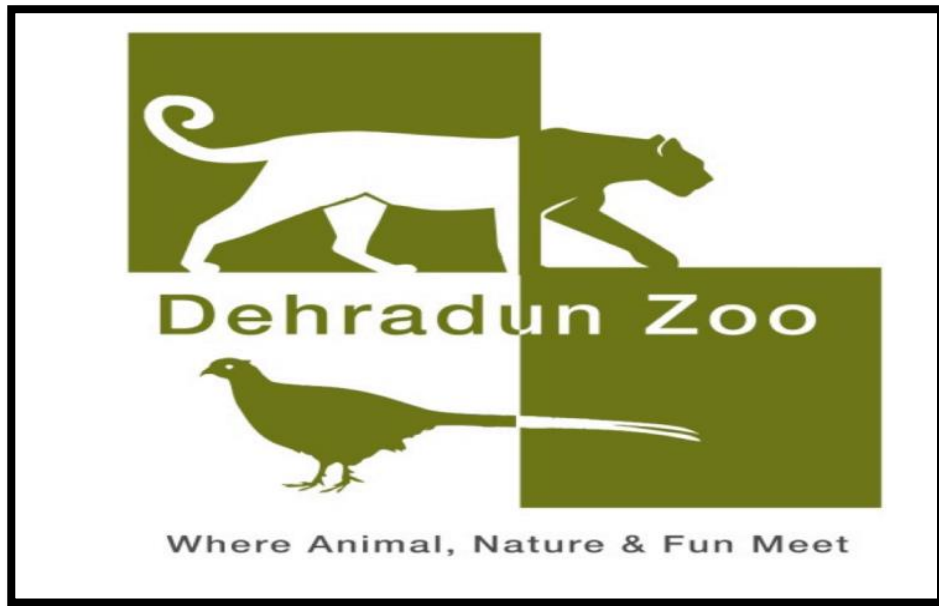


# Dehradun Zoo

Annual Report for the year of  
2021-22



**Malsi Dehradun, Uttarakhand**

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

The year 2021-22 was a tough as well as remarkable year for Dehradun zoo. The backbone of tourist places was broken by the out-break of Covid-19 all over the world. Beside the world-wide immense effects of spread of Covid-19, Dehradun zoo could stand still up-right due to proper implementation of safety features and strictly following all the guidelines of CZA and Health ministry of India and the guidelines issued by the State govt. A great come-back is seen in the increasing graph of tourists visiting Dehradun zoo. This year the zoo has achieved many milestones. In these 12 months zoo remained completely closed for tourists for about two and a half month due to Covid-19 guidelines of the CZA, the State and the Centre government. In spite of so many restrictions this year more than four lakh eighty nine thousand visitors visited the zoo. At the same time the revenue of the zoo has increased to more than 2 crores. This year the main focus was to improve the animal upkeep & hygiene, basic infrastructures and visitor facilities with better hygiene and sanitization. Despite of all limitations the zoo has maintained about 458 animals and birds of different species in healthy condition. Zoo has registered 25 births, 17 deaths of different species of animals this year. The zoo also instrumental for treatment of 21 rescued animals. Many animal enclosures were renovated and enriched as per the requirement of the animal.

For capacity building, we used to send our staff to different zoos for training but in the last two Years these trainings were restricted due to Covid-19 pandemic. To enhance the knowledge of the zoo staff and animal keepers, different animal experts were invited in the zoo on different occasions. A dedicated veterinarian has been posted in the zoo. A snake- specialist is also appointed on MoU basis. The zoo keepers and supporting staff are also trained. To improve visitor's facilities beside rain/sun sheds, sitting benches at different places under trees and in sunny areas are placed for shade and warmth. R.O. drinking Water facility near Snake house & Aquarium is developed and visitor path & parking facility is improved.

“Education & awareness” is one of the important objective and mandate of the zoo, for which many programs and events on animal awareness and waste management were organized in the zoo. Awareness program with the help of Waste Warriors was carried on importance of dry waste management (Re-use, Recycle & Reduce), sanitation and cleanliness. Animal awareness programs in co-ordination with Uttarakhand Science and Education Centre (USERC) & Matty Organization, Dr. Rajat Bhargava (BNHS) Mumbai and others were also organized.

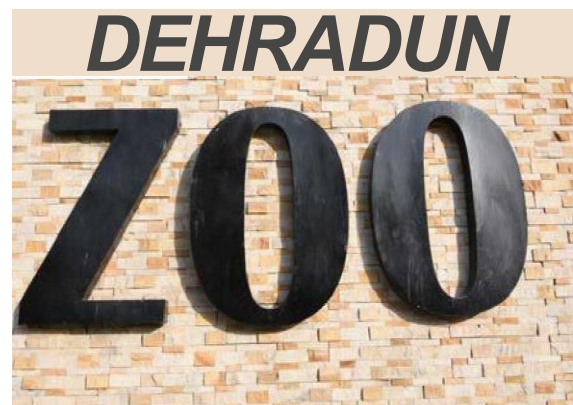
The guidelines of Covid-19 were strictly implemented in Dehradun Zoo. Important events in accordance with ‘Aazadi Ka Amrit Mahotsav’, such as Biodiversity Day (Awareness on social media), World environment day (Awareness on social media), Harela, Wildlife week, World wildlife day, Earth Day, World Pangolin Day, Sparrow Day, World Forestry Day and other important days were celebrated in online /offline mode in Dehradun zoo. Different programs like "Science with Fun", Puppet Show, etc. were organized to create an idea of cleanliness, awareness and interest, for conservation to co-existence among people. Many students, researchers and trainees from different institutes such as FRI, WII, BIFT, Dolphin Institute Dehradun, Birsa Agricultural University, Ranchi, CASFOS Burnihat, etc. visited the zoo to learn the captive

management of animals, and zoo management. The events such as great backyard bird counting, national moth day was organized in the zoo. During this period many dignitaries from the state and outside the state visited the zoo. This year fifth meeting of the governing body Dehradun Zoo Management Society was conducted on dated 27.10.2021 and many decisions were taken for the improvement of the zoo. Despite of all limitation, the management of the zoo has been improving day by day and the zoo management is committed to enhance the facility for animals as well as the visitors so that the objective of the zoo shall be achieved.



## 2. History of the Zoo

The Dehradun Zoo, earlier known as Malsi Deer Park was established as Van Chetna Kendra, in year 1976. Initially it was established with 3 Spotted Deer, 1 Goral, 2 Barking Deer, 3 Peafowl and 5 Budgerigar. The Deer Park was upgraded to Mini zoo under Section 38(H) of Wildlife (Protection) Act, 1972 by order No. 19-123/93-CZA (267) (M) 450 dated 09.03.2012. The first master layout plan was approved by CZA on dated 11.06.2013, F.No. 19-123/93-CZA(267)(Vol. I)(M)/3322, 14.08.2013 and the revised master layout plan was approved by CZA on dated 11.02.20216, 19-123/93-CZA(267)(Vol. I)(AK)/247/2016. Earlier it was a part of Malsi range of Dehradun forest division, consequently for better management, a separate unit was created in year 2014 for independent and effective management of the zoo. “Dehradun zoo management society” was formed by government of Uttarakhand in year 2016 and registered under society registration act 1860. In December 2017 separate director was posted in the zoo for independent management of zoo. In Year 2017 the management society received the income tax exemption under section 12 and 80 G of income tax act. At first the zoo was evaluated in year 2015 and valid up to 10th



August 2017, second evaluation was in 2018 and valid up to 22.03.2019, third evaluation was conducted on 17th and 18th Feb 2020 and extended from March 2019 to 19th August 2021. Next evaluation is proposed to be in April 2022.

Over the years the basic infrastructures were improved, many old enclosures were renovated and new ones were constructed for housing the animals. Many facilities were created and existing one were improved for visitors. Animals and birds were housed as per the approved layout plan. Many new facilities such as Aquarium and 3D theatre 0were created for visitors. Cactus Garden was established and a Snake House was also created for visitors. A separate veterinary Doctor was posted in the Zoo and a snake expert was also appointed on MoU. Basic healthcare facility was created for better animal healthcare. Visitor paths are made obstacles-free and visitor friendly. Availability of wheel chairs for physically challenged visitors. Insured pure R.O. drinking water available at 3 different points -starting, middle and end for tourist. Clean washrooms with proper sanitation facility at three points in zoo. Availability of First aid. Beside the world-wide immense effects of spread of Covid-19, Dehradun zoo could stand still up-right due to proper implementation of safety features and strictly following all the guidelines of CZA and Health ministry of India and the guidelines issued by the State govt. A great come-back is seen in the increasing graph of tourists visiting Dehradun zoo Due to all these improvements the number of visitors increased to about 4.89 lakh. Despite of all limitations the zoo has maintained about 458 animals and birds of different species in healthy condition. At present only 5 Ha. out of total 25 Ha. area of the zoo is open for the visitors. After completion of the expansion plan all 25 Ha. area will be open for the visitors of zoo.

### **3. Vision**

The vision of Dehradun zoo is as follows: -

- Dehradun zoo shall act as a Scientific institution engaged in conservation of wildlife and welfare of wild animals.
- This zoo shall be developed as a Centre of knowledge/ excellence on wildlife management and ex-situ conservation of animals.
- It shall act as a Centre for education, awareness and recreation on the theme of nature, forest, wild life and sustainable lifestyle.
- This zoo shall facilitate the visitors to understand the biology and behavior of the species displayed and their importance in natural balance and appreciate composite and complex nature of different ecosystems.

## 4. Mission

The mission of establishment and development of Dehradun zoo are: -

- Compliment the national efforts in conservation of wildlife through conservation breeding of endangered wild animal species of the region in a planned and coordinated manner on scientific basis.
- Develop empathy amongst visitors for wild animals and motivate them to support the cause of conservation of wildlife.
- Develop an understanding amongst the visitors about the ecological linkages with the life supporting processes of nature and the need for sustainable life styles and living in harmony with nature.
- To act as Rescue Centre by receiving and keeping orphaned, seized, rescued, injured wild animals.
- To act as research, training and knowledge centre for wild life conservation, in-situ population and habitat management

## 5. Objectives

Dehradun Zoo is being conceptualized to achieve following objectives –

- To establish and sustain a population of physically, genetically and behaviorally healthy animals and displaying them in naturalistic ambience.
- To supplement the conservation strategies for the rare and endangered species of the Shiwalik landscape by *ex-situ* conservation efforts.
- To emerge as a center for educating, motivating and spreading the message of wildlife and biodiversity conservation to the public.
- To act as a rescue and transit center for the problem and injured animals rescued from the nearby areas.

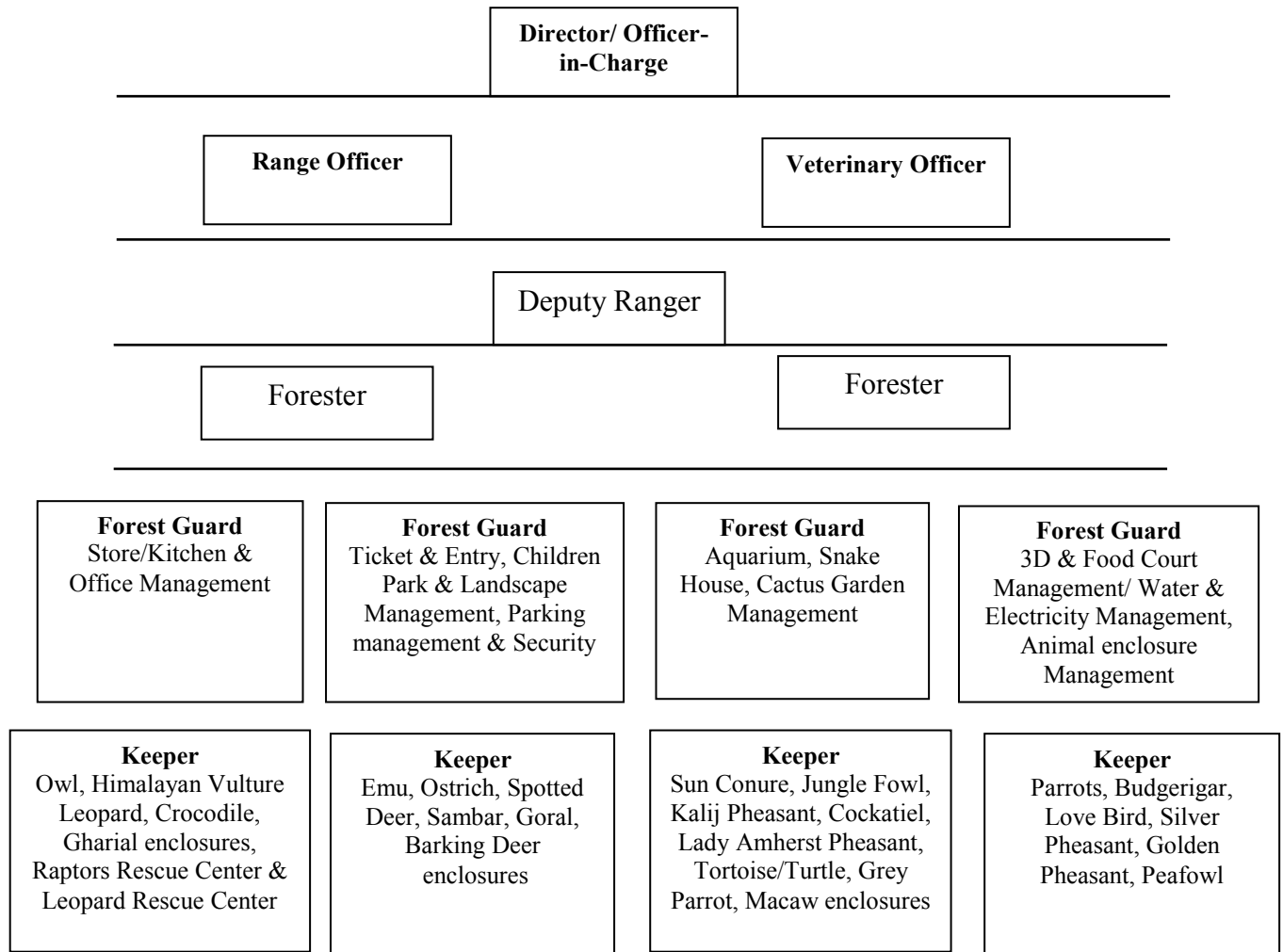
## 6. About us

S.No.	Particulars	Information
<b>Basic Information about the Zoo</b>		
1.	Name of the Zoo	<b>DEHRADUN ZOO</b>
2.	Year of Establishment	<b>1976 (Malsi Deer Park), 2012 (Dehradun Mini Zoo)</b>
3.	Address of the Zoo	<b>New Mussoorie Road, PO-Sinola, District Dehradun, Uttarakhand, India. Pin code 248003</b>
4.	State	<b>Uttarakhand</b>
5.	Telephone Number	
6.	Fax Number	
7.	E-mail address	<b>zoodehradun@gmail.com</b>
8.	Website	<b>www.dehradunzoo.org</b>
9.	Distance from nearest	<b>Airport: Joly grant- 45 km</b>
		<b>Railway Station: Dehradun -15 km</b>
		<b>Bus Stand: ISBT- 20 Km</b>
10.	Recognition Valid up to (Date)	<b>19.08.2021</b>
11.	Category of zoo	<b>Mini Zoo</b>
12.	Area (in Hectares)	<b>25 Ha.</b>
13.	Number of Visitors (Financial Year)	<b>Adult: 3,96,591</b>
		<b>Children:92,775</b>
		<b>Total Indian:,488,877</b>
		<b>Total Foreigners:489</b>
		<b>Total Visitors: 4,89,366</b>
14.	Visitors' Facilities Available in Zoo	<b>Parking, Clock room, Pure RO drinking water, Food court, Toilets, Rest Sheds, Sitting benches, Wheel chairs.</b>
15.	Weekly Closure Day of the Zoo	<b>Monday</b>



<b>S.No.</b>	<b>Particulars</b>	<b>Information</b>
<b>Management Personnel of the zoo</b>		
16.	Name with designation of the Officer in-charge	<b>Prasana Kumar Patro</b>
	Name of the Veterinary Officer	<b>Dr. Rakesh Nautiyal</b>
	Name of the Curator	<b>Mr. Mohan Singh Rawat</b>
	Name of the Biologist	-
	Name of the Education Officer	-
	Name of the Compounder/ Lab Assistant	-
<b>Owner / Operator of the Zoo</b>		
17.	*Name of the Operator	<b>Director Dehradun Zoo, Dehradun Zoo Management Society, Uttarakhand Forest Department, Government of Uttarakhand</b>
18.	Address of the Operator	<b>New Mussoorie Road, PO-Sinola, District Dehradun, Uttarakhand, India. Pin code 248003</b>
19.	Contact details/Phone number of Operator	<b>9412085077</b>
20.	E-mail address of Operator	<b>prasana03ifs@gmail.com zoodehradun@gmail.com</b>

## 7. Organizational Chart



## 8. Human Resources

### Manpower of the Zoo

Sl. No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Director	01	Mr. P K Patro
2	Range officer/ curator	01	Mr. Mohan Singh Rawat
3	Veterinary Officer	01	Dr. Rakesh Nautiyal
4	Deputy Ranger	01	Mr. Vinod Kumar Lingwal
5	Forester	02	Mr. Charan Singh
			Mrs. Asha
6	Forest guard	04	Mrs. Pryianka Madhwal (Bhatt)
			Mr. Manoj Chamoli
			Mrs. Vineeta Chhimwal
			Mr. Amit Anthwal
7	Zoo keeper	04	Mr. Bhagat Singh
			Mr. Munna Lal
			Mr. Rameshwar
			Mr. Sompal
8	Contractual staff	24	
9	Security staff (PRD)	07	

## 9. Capacity Building of zoo personnel

Sl. No.	Name and designation of the zoo personnel	Subject matter of Training	Period of Training	Name of the Institution where the Training attended
1	Mr. Bhagat Singh Chauhan (Keeper)	Up keeping of animals	3 days	Pt G B Pant High Altitude zoo, Nainital
		Up keeping/ care of the wild animals	One week	Dhauladhar Nature Park, Gopalpur, District Kangra (H.P.)
		"Northern Region Zoo Keepers Training Programme-2018"	One week	Etawah Safari Park, Etawah.
2	Mr. Rameshwer Prasaad (Keeper)	Up keeping/ care of the wild animals	3 Days	Kanpur Zoo Lion breeding Centre Etawah Safari Park, Etawah
		Zoo Keepers Training Programme-2019	5 Days	
3	Mr. Sompal (Keeper)	Management of wild animals in captivity	5 Days	M.C. Zoological Park, Chhatbir, Punjab
4	Mr. Deepak Chauhan Assistant Keeper (Contractual)	Management of wild animals in captivity	5 Days	M.C. Zoological Park, Chhatbir, Punjab

10. **Zoo Advisory Committee** -The governing body of the Dehradun Zoo Management Society is at present acting as advisory committee for the management of the zoo. The governing body is a 12-member committee headed by the Principal Secretary/ additional chief secretary Forest of Uttarakhand Government and the Director, Dehradun zoo is the member secretary.

11. **Health Advisory Committee**- The proposal for formation of health advisory committee has been sent to the Uttarakhand government for approval.





## 12. Number of visitors and revenue


Year	Number of visitors	Revenue (in lakh)
2013-14	198700	23.28
2014-15	238225	25.61
2015-16	270744	40.77
2016-17	411740	76.73
2017-18	619450	198.85
2018-19	658213	211.52
2019-20	615317	203.40
2020-21	266035	116.31
2021-22	489366	207.15

**13. Financial statement of financial year 2021-22**

**Balance Sheet As on 31.03.2022**

(Amount in Rs.)

Particulars	Note	31 March 2022	31 March 2021
<b>I EQUITY AND LIABILITIES</b>			
1 Owners' Funds			
(a) Working Capital Fund	2	-6,44,07,188	-5,36,57,728
Fund Accumulated/Set Apart		-	95,34,901
(b) Reserves and surplus	3	12,92,55,602	9,99,62,904
		6,48,48,414	5,58,40,077
2 Non-current liabilities			
(a) Long-term borrowings	4	6,68,35,000	6,68,35,000
		6,68,35,000	6,68,35,000
Total		13,16,83,414	12,26,75,077
<b>II ASSETS</b>			
1 Non-current assets			
(a) Property, Plant and Equipment and Intangible assets			
(i) Fixed Asset and CWIP	7	12,92,55,602	9,99,62,904
(b) Other non-current assets	5	97,665	1,42,450
		12,93,53,267	10,01,05,354
2 Current assets			
(a) Cash and bank balances	6	23,30,147	2,25,69,723
		23,30,147	2,25,69,723
Total		13,16,83,414	12,26,75,077

(Member)   
 सचिव/निदेशक  
 देहरादून जू प्रबन्धन संस्था,  
 मालसी (उत्तरांचलप्रदे)

Place : Dehradun  
 Dated : 19th September 2022  
 UDIN : 22400521ATGSTA3062

Annexed to the Audit Report of Even Date

For M/s. Saurabh Kishan & Company  
 Firm Registration No. 010729C  
 Chartered Accountants

  
 Saurabh Gupta  
 F.C.A.  
 Membership No. 400521



**Dehradun Zoo Management Society**  
**Dehradun Zoo, New Malsi Road, Post Sinola**  
**Provisional Income and Expenditure Account for the Year Ending 31.03.2022**

Dehradun Zoo Management Society  
Statement of Income and Expenditure for the year ended 31st March 2022

		(Amount in Rs.)	
		31 March 2022	31 March 2021
I	Revenue from operations	2,85,68,852	2,05,97,115
II	Other Income	2,29,846	5,83,022
III	Gross Receipts (I+II)	<b>2,87,98,698</b>	<b>2,11,80,137</b>
IV	<u>Application of Income:</u>		
(a)	Finance costs	5,27,396	1,74,520
(b)	Other expenses	1,92,62,965	78,54,270
(c)	Capital Expenditure incurred during the year	2,92,92,698	5,78,30,558
	Total expenses	<b>4,90,83,059</b>	<b>6,58,59,348</b>
V	Deficient (Excess of Expenditure Over income)	-2,02,84,361	-4,46,79,211

(Member)

सचिव/निदेशक  
देहरादून जू प्रबन्धन संस्था,  
मालसी (उत्तराखण्ड)

Place : Dehradun  
Dated : 19th September 2022  
UDIN : 22400521ATGSTA3062

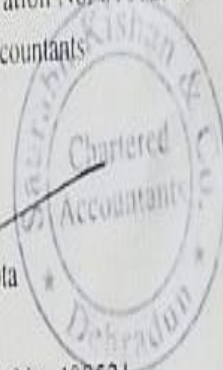
Annexed to the Audit Report of Even Date

For M/s. Saurabh Kishan & Company  
Firm Registration No. 010729C  
Chartered Accountants

Saurabh Gupta

F.C.A.



Membership No. 400521




**Dehradun Zoo Management Society**  
**Dehradun Zoo, New Malsi Road, Post Sinola**  
**Schedules annexed to Profit and Loss A/c**  
**For the year ended 31.03.2022**

Dehradun Zoo Management Society  
Notes forming part of the Financial Statements for the year ended 31st March, 2022

		(Amount in Rs.)	
		31 March 2022	31 March 2021
<b>8</b>	<b>Revenue from operations</b>	2,07,98,279	1,17,73,260
(a)	Receipts From Dehradun Zoo	49,000	1,90,000
(b)	Adoption of Birds	-	1,34,500
(c)	Misc. Income	-	50,00,000
(d)	Donation From IOC (Lacchiwala Herbal Garden)	-	4,99,355
(e)	Donation From GAIL (Solar System Installation)	-	30,00,000
(f)	Donation from Hans Foundation	77,14,073	-
(g)	Receipts From Lacchiwala Nature Park	7,500	-
(h)	Tender Fees	-	-
		<b>2,85,68,852</b>	<b>2,05,97,115</b>
	<b>Revenue from operations (Net)</b>		
<b>9</b>	<b>Other income</b>	31 March 2022	31 March 2021
(a)	Interest income	2,26,271	5,83,022
(b)	Interest on Income Tax Refund	3,575	-
	<b>Total other income</b>	<b>2,29,846.00</b>	<b>5,83,022.00</b>
<b>10</b>	<b>Finance cost</b>	31 March 2022	31 March 2021
(a)	Interest expense	5,27,396	1,74,520
	Interest on Loan	-	-
	<b>Total Finance cost</b>	<b>5,27,396</b>	<b>1,74,520</b>
<b>11</b>	<b>Other Expenses</b>	31 March 2022	31 March 2021
(a)	Repairs and maintenance - Buildings	1,37,828	41,800
(b)	Repairs and maintenance - Zoo	23,83,298	12,64,074
(c)	Lacchiwala Nature Park Maintenance	-	11,22,200
(d)	Adventure Activities	5,45,676	3,07,682
(e)	Administrative Expenses/ Zoo-Running	79,40,744	22,60,825
(f)	Advertisement Expenses	3,22,097	1,19,805
(g)	Electrical Expenses	16,68,055	2,63,321
(h)	Payment to Government of Uttarakhand	62,65,267	24,32,998
(i)	Celebration Expenses	-	41,565
	<b>Total</b>	<b>1,92,62,965</b>	<b>78,54,270</b>

  
**सचिव/निदेशक**  
**देहरादून जू प्रबन्धन संस्था,**  
**मालसी (सुतराखण्ड)**



# Dehradun Zoo Management Society

## Schedule "A" of Fixed Assets

As on 31.03.2022

Dehradun Zoo Management Society Notes to Fixed Assets - 7 As on 31.03.2022							
S No	Particulars	W.D.V As On 01.04.2021	Additions	Sold/Trf	Total	Rate Depreciation Amount	W.D.V As On 31.03.2022
							27,01,685.00
1	3D Hall	27,01,685.00			27,01,685.00	0%	27,01,685.00
2	Aquarium	1,21,04,000.00			1,21,04,000.00	0%	1,21,04,000.00
3	Cactus Garden	37,29,688.00	39,326.00		37,69,014.00	0%	37,69,014.00
4	Vertical Garden	1,29,825.00			1,29,825.00	0%	1,29,825.00
5	Electrical Fittings	76,383.00			76,383.00	0%	76,383.00
6	Infrastructure	1,01,03,036.00			1,01,03,036.00	0%	1,01,03,036.00
7	Food Court	2,83,310.00			2,83,310.00	0%	2,83,310.00
8	Furniture & Fixture	7,87,869.00			7,87,869.00	0%	7,87,869.00
9	Bio-Crush Machine	4,25,371.00			4,25,371.00	0%	4,25,371.00
10	Office Equipments	4,92,113.00			4,92,113.00	0%	4,92,113.00
11	Ticket Machine	51,030.00			51,030.00	0%	51,030.00
12	Crocodile Shelter	3,73,347.00			3,73,347.00	0%	3,73,347.00
13	Leopard Shelter	2,45,775.00			2,45,775.00	0%	2,45,775.00
14	Snake Shelter	21,44,650.00	4,74,686.00		26,19,336.00	0%	26,19,336.00
15	Tortoise Shelter	2,45,787.00			2,45,787.00	0%	2,45,787.00
16	Vulture Shelter	3,33,202.00			3,33,202.00	0%	3,33,202.00
17	Ostrich Shelter	9,912.00			9,912.00	0%	9,912.00
18	Bird Shelter	55,139.00			55,139.00	0%	55,139.00
19	Roek Garden	12,71,266.00			12,71,266.00	0%	12,71,266.00
20	Animal Clinic	4,79,908.00			4,79,908.00	0%	4,79,908.00
21	Tiger Shelter	8,75,843.00			8,75,843.00	0%	8,75,843.00
22	Fox Shelter	1,59,900.00			1,59,900.00	0%	1,59,900.00
23	Bear Shelter	6,19,065.00			6,19,065.00	0%	6,19,065.00
24	Solar System	48,63,755.00			48,63,755.00	0%	48,63,755.00
25	Hyna Shelter	15,17,112.00			15,17,112.00	0%	15,17,112.00
26	Wolf Shelter	66,200.00			66,200.00	0%	66,200.00
27	Lacchiwala Herbal Garden	37,78,354.00	11,86,994.00		49,65,348.00	0%	49,65,348.00
<b>Total...(A)</b>		<b>4,79,23,505.00</b>	<b>17,01,006.00</b>	<b>-</b>	<b>4,96,24,511.00</b>	<b>-</b>	<b>4,96,24,511.00</b>

S. No.	Particulars	W.D.V As On 01.04.2021	Additions	Sold/Trf	Total	Rate Depreciation Amount	W.D.V As On 31.03.2022
1	Lacchiwala Nature Park Development (Funded by loan from MDDA)	5,20,39,399.00	2,75,91,692.00		7,96,31,091.00	0%	7,96,31,091.00
<b>Total...(B)</b>		<b>5,20,39,399.00</b>	<b>2,75,91,692.00</b>	<b>-</b>	<b>7,96,31,091.00</b>	<b>-</b>	<b>7,96,31,091.00</b>

<b>Total Assets...(A+B)</b>		<b>9,99,62,904.00</b>	<b>2,92,92,698.00</b>	<b>-</b>	<b>12,92,55,602.00</b>	<b>-</b>	<b>12,92,55,602.00</b>
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(Member) सचिव/निदेशक  
देहरादून जू प्रबन्धन संस्था,  
मालसी (उत्तराखण्ड)

Place : Dehradun

As per our separate report of even date

For M/s. Saurabh Kishan & Company  
Firm Registration No. 010729C  
Chartered Accountants

Saurabh Gupta  
F.C.A.  
Membership No. 400521

#### 14. Daily feed Schedule of animals

Sl. No.	Species	Nos.	Feed item	Qty. per animal (in Kg)		Day of fasting
				Summer	Winter	
1	Grey Parrot (Jacquot)	02	Gram	0.080	0.080	
			Maiz	0.008	0.008	
			Kanki	0.026	0.026	
			Ground nut	0.026	0.026	
			Seasonal Fruits	0.100	0.100	
			Green Chilly	0.010	0.010	
			<b>Total</b>	<b>0.250</b>	<b>0.250</b>	
2	Sun Conure, Sun Parakeet	03	Wheat	0.140	0.140	
			Kanki	0.030	0.030	
			Kangni	0.106	0.106	
			Tomato	0.050	0.050	
			Seasonal Fruits	0.120	0.120	
			<b>Total</b>	<b>0.446</b>	<b>0.446</b>	
3	Cockatiel	35	Bajra	0.110	0.110	
			Wheat	0.130	0.130	
			Kanki	0.110	0.110	
			Kangni	0.110	0.110	
			Green vegetables	0.210	0.210	
			<b>Total</b>	<b>0.670</b>	<b>0.670</b>	
4	Lady Amherst Pheasant	03	Bajra	0.020	0.020	
			Wheat	0.040	0.040	
			Kangni	0.100	0.100	
			Onion	0.040	0.040	
			Garlic	0.040	0.040	
			Green vegetables	0.120	0.120	
			Bottle Gourd	0.080	0.080	
			Tomato	0.100	0.100	
			Egg	0.000	0.200	
<b>Total</b>	<b>0.540</b>	<b>0.740</b>				
5	Kalij Pheasant	05	Bajra	0.020	0.020	
			Wheat	0.040	0.040	
			Kangni	0.100	0.100	
			Onion	0.040	0.040	
			Garlic	0.040	0.040	
			Green vegetables	0.120	0.120	
			Bottle Gourd	0.080	0.080	
			Tomato	0.100	0.100	
			Egg	0.000	0.200	
<b>Total</b>	<b>0.540</b>	<b>0.740</b>				

6	Macaw	06	White Gram	0.200	0.200	
			Roasted Gram	0.022	0.022	
			Walnut	0.060	0.060	
			Sunflower Seeds	0.200	0.200	
			Ground nut	0.040	0.040	
			Tomato	0.050	0.050	
			Seasonal Fruits	0.100	0.100	
			<b>Total</b>	<b>0.672</b>	<b>0.672</b>	
7	Tortoise/ Turtle	17	Onion	0.040	0.040	
			Garlic	0.040	0.040	
			Green vegetables	0.600	0.600	
			Bottle Gourd	0.090	0.090	
			Tomato	0.170	0.170	
			<b>Total</b>	<b>0.940</b>	<b>0.940</b>	
8	Himalayan Vulture	01	Mutton/Chicken /Beef	1.000	1.000	Tuesday
			<b>Total</b>	<b>1.000</b>	<b>1.000</b>	
9	Eagle	04	Mutton/Chicken /Beef	1.000	1.000	Tuesday
			<b>Total</b>	<b>1.000</b>	<b>1.000</b>	
10	Leopard	01	Mutton/Chicken /Beef	5.000	5.000	Tuesday
			<b>Total</b>	<b>5.000</b>	<b>5.000</b>	
11	Crocodile	03	Mutton/Chicken /Beef	3.000	1.000	Tuesday
			<b>Total</b>	<b>3.000</b>	<b>1.000</b>	
12	Gharial	04	Fish	3.000	2.000	Tuesday, Thursday, Saturday, Sunday
			<b>Total</b>	<b>3.000</b>	<b>2.000</b>	
13	Owl	07	Chicken(chicks) /Mice	0.800	0.800	Tuesday
			<b>Total</b>	<b>0.800</b>	<b>0.800</b>	
14	Ostrich	02	Gram	1.000	1.000	
			Maize	0.800	0.800	
			Wheat	0.800	0.800	
			Soybean	0.800	0.800	
			Egg	0.000	0.200	
			Green vegetable	0.500	0.500	
			<b>Total</b>	<b>3.900</b>	<b>4.100</b>	
15	Emu	03	Gram	0.900	0.900	
			Maize	0.600	0.600	
			Wheat	0.600	0.600	
			Soybean	0.600	0.600	
			Egg	0.000	0.150	
			Green vegetable	0.500	0.500	
			<b>Total</b>	<b>3.200</b>	<b>3.350</b>	
16	Sambar	11	Gram	0.900	0.900	
			Maize	1.000	1.000	
			Wheat Bran (Chowker)	1.000	1.000	
			Batisa	0.250	0.250	
			Jaggery	0.000	0.400	
			Deoiled cake	0.000	0.300	
			Green grass	45.000	45.000	
			<b>Total</b>	<b>48.150</b>	<b>48.850</b>	

17	Goral	03	Gram	1.000	1.000	
			Maize	0.600	0.600	
			Wheat Bran (Chowker)	0.600	0.600	
			Batisa	0.250	0.250	
			Jaggery	0.000	0.300	
			Deoiled cake	0.000	0.250	
			Green grass	22.000	22.000	
			<b>Total</b>	<b>24.450</b>	<b>25.000</b>	
18	Indian Muntjac/ Barking Deer	07	Gram	1.000	1.000	
			Maize	1.000	1.000	
			Wheat Bran (Chowker)	1.000	1.000	
			Batisa	0.400	0.400	
			Jaggery	0.000	0.500	
			Deoiled cake	0.000	0.450	
			Green grass	38.000	38.000	
<b>Total</b>	<b>41.400</b>	<b>42.350</b>				
19	Spotted Deer	96	Gram	10.411	10.411	
			Maize	5.205	5.205	
			Wheat Bran (Chowker)	5.205	5.205	
			Batisa	2.103	2.103	
			Jaggery	0.000	3.000	
			Deoiled cake	0.000	5.700	
			Green grass	718.356	718.356	
<b>Total</b>	<b>741.280</b>	<b>749.980</b>				
20	Love Bird	24	Bajra	0.150	0.150	
			Wheat	0.140	0.140	
			Kanki	0.140	0.140	
			Kangni	0.170	0.170	
			Green vegetables	0.090	0.090	
			Bottle Gourd	0.090	0.090	
			<b>Total</b>	<b>0.780</b>	<b>0.780</b>	
21	Budgerigar	144	Bajra	0.590	0.590	
			Wheat	0.560	0.560	
			Kanki	0.590	0.590	
			Kangni	0.500	0.500	
			Green vegetables	0.200	0.200	
			<b>Total</b>	<b>2.440</b>	<b>2.440</b>	
22	Parrot	31	Gram	0.110	0.110	
			Maize	0.110	0.110	
			Kanki	0.280	0.280	
			Kangni	0.280	0.280	
			Roasted gram	0.230	0.230	
			Green vegetable	0.500	0.500	
			Tomato	0.070	0.070	
			Seasonal Fruits	0.220	0.220	
			Green Chilly	0.060	0.060	
			<b>Total</b>	<b>1.860</b>	<b>1.860</b>	

23	Plum-headed Parakeet	07	Gram	0.110	0.110
			Maize	0.110	0.110
			Kanki	0.280	0.280
			Kangni	0.280	0.280
			Roasted gram	0.230	0.230
			Green vegetable	0.500	0.500
			Tomato	0.070	0.070
			Seasonal Fruits	0.220	0.220
			Green Chilly	0.060	0.060
			<b>Total</b>	<b>1.860</b>	<b>1.860</b>
			24	Silver Pheasant	04
Wheat	0.040	0.040			
Kangni	0.100	0.100			
Onion	0.040	0.040			
Garlic	0.040	0.040			
Green vegetables	0.120	0.120			
Bottle Gourd	0.080	0.080			
Tomato	0.100	0.100			
Egg	0.000	0.100			
<b>Total</b>	<b>0.540</b>	<b>0.640</b>			
25	Golden Pheasant	02			
			Wheat	0.030	0.030
			Kangni	0.075	0.075
			Onion	0.020	0.020
			Garlic	0.020	0.020
			Green vegetables	0.120	0.120
			Bottle Gourd	0.060	0.060
			Tomato	0.060	0.060
			Egg	0.000	0.100
			<b>Total</b>	<b>0.405</b>	<b>0.505</b>
26	Peacock	06	Bajra	0.060	0.060
			Wheat	0.180	0.180
			Kanki	0.120	0.120
			Kangni	0.120	0.120
			Green vegetables	0.200	0.200
			<b>Total</b>	<b>0.680</b>	<b>0.680</b>
27	Red Jungle Fowl	05	Poultry Feed	0.300	0.300
			Bajra	0.030	0.030
			Onion	0.060	0.060
			Garlic	0.060	0.060
			Green vegetables	0.180	0.180
			Bottle Gourd	0.120	0.120
			Tomato	0.120	0.120
			Wheat	0.060	0.060
			Egg	0.000	0.048
			<b>Total</b>	<b>0.930</b>	<b>0.978</b>

### 15. Vaccination Schedule of animals

Sl. No.	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity	Remarks
1	Deer	FMD	Tetravalent Vaccine 2 intramuscula	Twice in the year	
		HS			
		BQ			
2	Leopard	Rabies	1 ml	Yearly	
		Feline Pan Leucopenia	1 ml	Yearly	
3	Birds				Vaccination was not carried out
4	Turtle/Tortoise				Vaccination was not carried out
5	Crocodile				Vaccination was not carried out

### 16. De-worming Schedule of animals

Sl. No.	Species	Drug used	Month	Remark
1	Deer	Albendazole	May, September & December	Three times in the Year and Drugs are used according to the type of parasitic load and the condition of the pregnant and non-pregnant animal.
		Fenbendazole		
		Triclabendazole		
		Livamisole		
		Oxyclozanide		
2	Leopard	Albendazole	February, June & October.	Three times in the Year and Drugs are used according to the type of parasitic load and the condition of the pregnant and non-pregnant animal.
		Fenbendazole		
		Praziquantal		
		Parental Pamoate		
3	Birds	Fenbendazole		According to the examination of the fecal sample in every six months
		Praziquantal		
4	Turtle/Tortoise	Albendazole		According to the examination of the fecal sample in every six months
		Fenbendazole		
5	Crocodile	Albendazole		According to the examination of the fecal sample in every six months
		Fenbendazole		

## 17. Disinfection Schedule

Sl. No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1	Deer	Closed enclosure	Lime dust, spreading lime dust all over the captive area/ground	In the month of October
			White wash of the feeding platform	First and last Monday of the month
2	Leopard	Closed enclosure	2% Solution of POP and kohrsolin, dilutions are disinfectants used for washing the area	First and last Monday of the month
3	Birds	Closed enclosure	Spraying of bactericidal (2% Solution of POP and kohrsolin, dilutions)	Last week of June & Sep
			Cleaning of water and feeder	Every Monday

## 18. Health Check-up of employees for zoonotic diseases

Sl. No.	Name	Designation	Date of Health Check up	Findings of Health Checkup
1	Mr. Bhagat Singh	Zoo keeper	09.09.2021	Nil
2	Mr. Munna Lal	Zoo keeper	09.09.2021	Nil
3	Mr. Rameshwar	Zoo keeper	09.09.2021	Nil
4	Mr. Sompal	Zoo keeper	09.09.2021	Nil
5	Mr. Deepak Chauhan	Assistant Zoo Keeper (Contractual)	09.09.2021	Nil
6	Mr. Suresh	Assistant Zoo Keeper (Contractual)	09.09.2021	Nil

## 19. Development Works carried out in the zoo during the year

- I. Construction work of Tiger Enclosure is to be completed soon.
- II. Construction work of Leopard Enclosure is to be completed soon.
- III. Paint work in Leopard Rescue Centre and modification of squeezer.
- IV. Repairing of all animal enclosures with required welding and masonry work.
- V. Construction of drain outside guard room in parking area and increased the height of the old drain.
- VI. Construction of pits at different places for making organic manure to be used in gardening.
- VII. Repairing of check dams at different places in Safari area.
- VIII. Repairing of damaged wall of tube well supplying water in zoo.
- IX. Construction of drain near CC wall in parking area to prevent Land-slide on the side of the visitor path.
- X. Made special seasonal arrangements in all enclosures, purchased blankets, fan heaters etc. and made wooden boxes with wire mesh on one side to keep room heaters inside them.
- XI. Refilling of old fire extinguishers and purchased a new one.
- XII. Interior decoration of Conference Hall (Curtains of doors and windows).
- XIII. Gates for service roads of Leopard and Tiger enclosures.
- XIV. Repairing of damaged pipeline of tube well to avail proper supply of water.
- XV. Repairing of damaged pipeline of tube well to avail proper supply of water.
- XVI. Renovation of Ticket Plaza.
- XVII. Laying water supply pipeline in Safari region for proper supply of water from overhead water tank to different enclosures- Barking Deer, Black Bear, Sloth Bear, Goral, Spotted Deer, Tiger, Sambhar, Fox, Leopard and Hyna enclosure.







## 21. Education and Awareness programs during the year

- 08.04.2021 :- A Batch of 30 trainees from Forest Guard Training Institute, Rampur-mandi visited the zoo to study zoo management.
- 28.06.2021 :- Work on parasitic disease prevalence in birds and animals of zoo by Ph.D. student Dr. Shivani Sahu ID No. 31047.
- 18.08.2021 :- 15<sup>th</sup> Batch of 19 Deputy Ranger trainees from Forest Training Institute, Chail, (H.P.) visited the zoo to study zoo management.
- 05.09.2021 :- A Study tour of 24 gypsy drivers from Corbett National Institute for Wildlife Management And Nature Guiding, Corbett Tiger Reserve Ramnagar (Nainital).
- 05.10.2021 :- An educational group of 30 students from Maharana Pratap Sports Collage, Raipur, Dehradun visited the zoo, 3D-movie on wildlife conservation was shown and complete visit of zoo was arranged and refreshment was given to all.
- 06.10.2021 :- An educational group of 30 students from Maharana Pratap Sports Collage, Raipur, Dehradun visited the zoo, 3D-movie on wildlife conservation was shown and complete visit of zoo was arranged and refreshment was given to all.
- 19.10.2021 :- A batch of 37 trainees from UFTA, Haldwani visited the zoo to study zoo management.
- 24.10.2021 :- A batch of 23 Forest Guards from FTA, Jayanti, Almorha visited the zoo to study zoo management.
- 12.11.2021 :- A group of 29 officers including FRO, Dy. RO, Forester, Forest Guards from SFRI Kanpur, Forest Research Institute visited the zoo to study zoo management.
- 16.11.2021 :- A batch (2020-22) of 48 FRO trainees from UFTA, Haldwani visited the zoo to study zoo management.
- 24.11.2021 :- Field training (Dt. 04.12.2021 to 13.12.2021) of 6 BSc. Forestry Students from HNB Garhwal University, Shrinagar, Uttarakhand visited the zoo to study habit and Habitat of wild animals and zoo management.
- 01.12.2021 :- A Batch-103 of 42 Forest Guard trainees from Forest Guard Training Institute, Rampur-mandi visited the zoo to study zoo management.
- 15.12.2021 :- A group of 25 veterinary officers of Madhya Pradesh under their two-weeks training workshop on “Wildlife and Health Management” jointly organized by Wildlife Institute of India along with Madhya Pradesh State Veterinary Council and Madhya Pradesh Forest Department visited the zoo as a part of the course. The objective of the workshop was to expose the officer trainees to various aspects of captive management of wild animals and enhance basic skills and knowledge of the field veterinary officers of Department of Animal Husbandry, Madhya Pradesh, in dealing with wildlife emergencies including carrying out rescue/rehabilitations of wild animals in distress.
- 16.12.2021 :- A batch of 41 regular Forest Guard Trainees and 16<sup>th</sup> batch of 13 Deputy Ranger trainees total 54 trainees from FTI, Chail, Solan (H.P.) visited the zoo to study zoo management.

- 13.03.2022 :- A batch of 44 Forest Range Officers Training 2021-23 visited the zoo to study zoo management.
- 17.03.2022 :- A group from Wildlife Institute Of India, comprising of 10 Officer Trainees of the ongoing 42<sup>nd</sup> Post Graduate Diploma Course in Advanced Wildlife Management visited the zoo as part of their Ex-suit Conservation Management Module.
- 24.03.2022 :- A Group of 24 Veterinary Officers representing the states of Assam, Bihar, Jharkhand, Himachal Pradesh, Kerala, Punjab and Uttarakhand visited Dehradun zoo as part of the programme- 'Wildlife Health Bridge 2022A training course'. The objective of the training was to provide understanding of various aspects of ex-suit management of wild sentient and expose the participants to advancement in the area of wildlife health and associated topics.



- **World Environment Day, 05 June 2021:** The World Environment Day was celebrated by the zoo staff in Dehradun Zoo by taking the pledge to save the environment by planting trees and saving wildlife.



- **Wildlife Week 1<sup>st</sup> Oct. 2021 to 07 Oct. 2021**

This year on the occasion of 67<sup>th</sup> “Wildlife Week” Celebration sync with Azadi Ka Amrit Mahotsav campaign titled ‘Conservation to coexistence: The people’s connect’, Dehradun Zoo, Uttarakhand Forest Department organized different online and offline activities aimed at building collaborations with universities, colleges and schools to ensure the culture of scientific inquiry and the promotion of the concept to citizen science. Many Special events were conducted during National Wildlife Week, from 1<sup>st</sup> October to 7<sup>th</sup> October 2021 at Dehradun Zoo, Malsi, Dehradun. The entry in zoo for students & children was free for this complete week (1-7) October. The basic Objective was to sensitize the young minds about the importance of wildlife conservation. The theme of this celebration was ‘**Sanrakshan ka Sankalp-Ek Jan Bhagigari**’ (A conservation collective).



On 1<sup>st</sup> October 2021, the day one of the opening of the “Wildlife Week” was initiated by a **‘Raley for conservation of wildlife’** conducted in the morning by zoo staff. This day online **Slogan competition** on conservation of wildlife was conducted in to groups- S1 for school students- Class- 9 to 12 and S2-for open category. During the day a **‘magic show on science & fiction’** for awareness among people to reduce frauds was conducted and also a **‘puppet show’** was organized to generate feeling and awareness among people for conservation of wildlife. In the evening the opening ceremony of ‘wildlife week’ was held in the benign presence of our Chief Guest – Mr. Pushkar Sing Dhami, The Hon. C.M. of Uttarakhand, along with Dr. Harak Singh Rawat, The Hon. Forest & Environment Minister, Uttarakhand, and Mr. Ganesh Joshi, The Hon. Soldier Welfare, Industrial Development, Khadi & Cottage Industry Minister, Uttarakhand in presence of Mr. Rajiv Bhartari, PCCF(HoFF), Uttarakhand, Mr. Anoop Malik PCCF Wildlife, Uttarakhand, and other forest officers and Guests inaugurated the wildlife week ceremony and different events were conducted like– 1. Posters on Oak Forests, 2. Birds of Uttarakhand coffee table book, 3. E-book (Common tree and wildlife of Uttarakhand), 4. Common butterflies of Uttarakhand, 5. Venomous snakes of Uttarakhand.

The Hon. C.M. Uttarakhand also announced Free entry for all children up to the age of 18 years will be given in every Zoo in Uttarakhand.

At the end of the day a refreshment party was organized for the guests.



**2<sup>nd</sup> Oct. 2021** the second day of the “Wildlife Week”- Online competition of **Digital Painting** on wildlife was organized for Open category. **Short Educational Movies on Butterflies, Leopards** were shown to the students invited from different School to celebrate Wildlife week-2021 at Dehradun Zoo. Also a **snake awareness program** by Snake experts was conducted in the zoo to remove fear of snakes from minds of people and help reduce killing of innocent snakes. On the same day “**Gandhi Jayanti**” was also celebrated with great enthusiasm in the zoo.



**3<sup>rd</sup> October, 2021:** The third day of wildlife week celebration at Dehradun Zoo- To spread education and awareness on the importance of wildlife conservation on this day offline ‘**Face Painting**’ for open category was conducted in the zoo premises. Students from different schools and university participated with great enthusiasm and beautiful efforts showing their love and affection towards wildlife and environment. At the end of face painting snacks party was organized for the participants.





**4<sup>th</sup> October, 2021:** The fourth day of wildlife week celebration at Dehradun Zoo- To spread education and awareness on the importance of wildlife conservation on this day online ‘**Mobile Photography**’ in two categories was conducted Mp1-for school students- class 9 to 12 and Mp2-for open category. On the same day in offline mode ‘**Drawing competition**’ among students from different schools and colleges in four categories D1(class-5 & 6), D2(class-7 & 8), D3(class-9 & 10) and D4(class-11 & 12) was conducted in the zoo premises in which about 70 students from different schools participated. Colour-kits with other drawing accessories were also distributed to them. Students from different schools participated with great enthusiasm and beautiful efforts showing their love and affection towards wildlife and environment. At the end of drawing competition short educational movie on wildlife was shown and refreshment snacks party was organized for the participants.





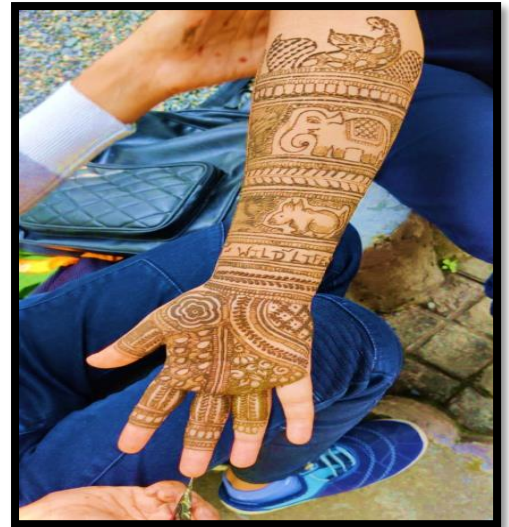
**5<sup>th</sup> October, 2021:** The fifth day of wildlife week celebration at Dehradun Zoo- To spread education and awareness on the importance of wildlife conservation, students from Maharana Pratap Sports Collage, Raipur, Dehradun and other nearby schools were invited to zoo and introduced to importance of the wildlife with the motto to educate on- ‘संरक्षण का संकल्प—एक जन भागीदारी /Sanrakshan ka Sankalp-Ek Jan Bhagigari’ (A conservation collective). After a complete zoo visit at the end on this day short educational movie on wildlife was shown and refreshment snacks party was organized for the participants.



**6<sup>th</sup> October, 2021:** The sixth day of wildlife week celebration at Dehradun Zoo- To spread education and awareness on the importance of wildlife conservation, participants were introduced to importance of the wildlife with the motto to educate on - ‘संरक्षण का संकल्प—एक जन भागीदारी /Sanrakshan ka Sankalp-Ek Jan Bhagigari’ (A conservation collective), thereafter



Mehndi competition on wildlife was organized for open category. A complete zoo visit was organized for the participants and at the end on this day short educational movie on wildlife was shown and refreshment snacks party was organized for the participants. On the occasion of wildlife week, adoption of a pair of Red Green winged Macaw by KASTURI 'an Association of IFS Officers Wives and Lady Officers Uttarakhand Chapter' for a period of one year was also done.



7<sup>th</sup> October, 2021: - This day was the sum up of all the competitions held at the Zoo along with the concluding day of the Wildlife Week-2021. In the morning till afternoon results of all competitions were finalized and all necessary arrangements for the conclusion ceremony of the “Wildlife Week” were done. “Wildlife Week” - 2021 Closing Ceremony was held in the benign presence of our chief guest: Mr. Rajiv Bharatari, PCCF(HoFF), Uttarakhand; along with other Special guests and other Officers of Forest Department. On this day all the officers, employees, students, and other people present in the closing ceremony of “Wildlife Week” **took an oath to protect and save wildlife**. Prizes were distributed to the worthy participants and forest staff and others working for the wellbeing of wildlife, helped in adoption of wild animals and saving the wild animals and the environment.





At the end of the “Wildlife Week” ceremony a refreshment party was given to the guests.

□ **World Pangolin Day 19<sup>th</sup> Feb. 2022**

This year on the occasion of 10<sup>th</sup> “**World Pangolin Day**” Celebration sync with Azadi Ka Amrit Mahotsav a grand Awareness campaign was jointly organized by Dehradun zoo, Uttarakhand Science and Education Centre (USERC) & Maaty Organization.



□ **World Sparrow Day 20<sup>st</sup> March 2022**

This year on the occasion of “**World Sparrow Day**” awareness programme on how to save sparrows, was conducted and also a book on sparrows was inaugurated in presence of Mr. P.K. Patro, Director, Dehradun zoo, Dr. P.M. Dhakate, CCF Wildilfe, Dr.Rajat Bhargava, BNHS, Mumbai and many other present on this occasion.



□ **World Forestry Day 21<sup>st</sup> March 2022**

This year on the occasion of “**World Forestry Day**” awareness programme on how to save forests and wildlife was conducted and trees were also planted in presence of Mr. P.K. Patro, Director, Dehradun zoo, Dr. P.M. Dhakate, CCF Wildilfe, Dr.Rajat Bhargava, BNHS, Mumbai and many others present on this occasion.



**22. Research Work carried out and publications**

As this is a newly established Zoo there is no research program been carried out by Zoo.

**23. Conservation Breeding Program of the Zoo**

As this is a newly established Zoo, there is no conservation-breeding program been carried out by Zoo.

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

Exchange of animal with other zoos was not done, however on dated: 21.08.2021-A Female Goral(Julie)-Received from Paschim Pinder Range. Narayanbagad, DFO Badrinath Forest Division, Gopeshwar. She was rescued/handed by Mrs. Uma Devi to this range. The female Goral is habitual of hand feeding as grown up among humans and on dated: 15.09.2021- 3 Ostrich (1M:2F) were Donated by Mr. Rahul Rohila, Sunder Park, Sashtri Nagar, Delhi.

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

Sl. No.	Date of Rescue	Species with number of animals rescued with their sex (M: F:U:T)	Received from Rescued	Date of Submission of Report to the CWLW / CZA	Action Taken	
					Date & Place of rehabilitation in their habitat/ Date of death and reason of death	Reasons for housing in the zoo
1	2	3	4	5	6	7
1	2/04/2021	Monkey (1F)	Mr. Jitendra, member of rescue team, Dehradun, UKFD		10.04.2021 rehabilitation in its natural habitat in Malsi Reserve Forest, Dehradun Forest Division	
2	04.04.2021	Monkey (1M)	Mr. Jitendra, member of QRT rescue team, Dehradun, UKFD		20.04.2021 rehabilitation in its natural habitat in Malsi Reserve Forest, Dehradun Forest Division	
3	09.04.2021	Monkey (1F)	Mr. Sudarshan, member of rescue team, Dehradun, UKFD		25.04.2021 rehabilitation in its natural habitat in Malsi Reserve Forest, Dehradun Forest Division	
4	16.04.2021	Leopard (1M)	R.O. Raipur Range. Mussoorie Forest Division UKFD		It was released by R.O., Raipur Range, Mussoorie, Forest Division on 17.04.2021 in its natural habitat.	
5	25.06.2021	Leopard (1M)	Badkot Range, Bhaniyawala		28.06.2021 Rescued weak and injured	

					leopard Died during treatment PM report and samples were handed over to R.O. Badkot Range for further actions.	
6	10.07.2021	14- Crocodiles (newly hatched) & 4 eggs	R.O. Roorkee Range, Haridwar Forest Division Mukhya Gangnagar, Meel 13 Roorkee Range,	10.07.2021		Since, crocodiles were very Small, so kept under Veterinarian's care and will be released afterwards.

**26. Annual Inventory of animals**

Dehradun Zoo Annual Inventory Report 2021-22																									
Dehradun Zoo	Uttarakhand	2021-22	01 April 2021 to 31 March 2022																						
S.No	SPECIES NAME	ANIMAL NAME	SCIENTIFIC NAME	OPENING STOCK As on 01-04-2021				BIRTHS			ACQUISITIONS			DISPOSALS			DEATH			CLOSING STOCK As on 31.03.2022					
				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T		
<b>Endangered Species (Schedule I and II)</b>				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T		
1	Bird	Indian Peafowl	Pavo cristatus	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	6		
2	Bird	Kalij Pheasant	Lophura leucomelanos	2	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5		
3	Mammal	Leopard	Panthera pardus	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
4	Reptile	Marsh Crocodile (Mugger)	Crocodylus palustris	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3		
5	Reptile	Indian Soft-shell Turtle	Nilssoniana gangetica	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
6	Reptile	Indian tent turtle/ Turtle Indian Roofed	Pangshura tecta	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4		
7	Reptile	Russell's Viper	Daboia russelii	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
8	Reptile	Reticulated Python	Malayopython reticulatus	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
9	Reptile	Checked Keelback	Fowleapiscator	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
10	Reptile	Spectacled Cobra/ Indian Cobra	<i>Naja naja</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		



11	Reptile	Common Rat Snake	Ptyas mucosa	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
12	Reptile	Tricarinate hill turtle	Melanochelys tricarinata	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6		
13	Reptile	Gharial	Gavialis gangeticus	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4		
14	Reptile	Indian Rock Python	Python molurus	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2		
15	Reptile	Python Burmese	Python bivittatus	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
<b>Total of Endangered Species</b>				17	25	3	45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	16	25	3	44
<b>Species (Schedule III and IV)</b>				<b>OPENING STOCK As on 01-04-2021</b>				<b>BIRTHS</b>			<b>ACQUISITIONS</b>			<b>DISPOSALS</b>			<b>DEATH</b>			<b>CLOSING STOCK As on 31.03.2022</b>					
				<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>		
16	Bird	Himalayan Vulture	Gyps himalayensis	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	
17	Bird	Eagle sp.	Accipitridae	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4		
18	Bird	Fowl Jungle Red	Gallus gallus	2	3	0	5	0	0	2	0	0	0	0	0	0	0	0	0	2	3	0	5		
19	Bird	Owl Brown Wood	Strix leptogrammica	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	4	4	
20	Bird	Owlet Spotted	Athene brama	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
21	Bird	Owl Tawny Fish	Ketupa flavipes	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
22	Bird	Parakeet Alexandrine	Psittacula eupatria	5	5	3	13	0	0	0	0	0	0	0	0	0	0	0	0	5	5	3	13		
23	Bird	Parakeet Rose Ring	Psittacula krameri	4	5	9	18	0	0	0	0	0	0	0	0	0	0	0	4	5	9	18			
24	Bird	Pheasant Golden	Chrysolophus pictus	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	2		
25	Bird	Plum-headed Parakeet	Psittacula cyanocephala	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7		

26	Mammal	Indian Muntjac/ Deer Barking (Kakar)	Muntiacus muntjak	2	6	1	9	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4	1	7
27	Mammal	Deer Sambar	Rusa unicolor	2	6	0	8	1	2	0	0	0	0	0	0	0	0	0	0	0	3	8	0	1
28	Mammal	Deer Spotted/ Chital	Axis axis	4	4	0	8	1	1	5	0	0	0	0	0	0	0	0	0	0	4	4	5	9
29	Mammal	Himalayan Goral	Naemorhedus goral	4	2	0	6	2	0	0	0	1	0	0	0	0	0	4	2	0	2	1	0	3
30	Reptile	Tortoise elongated	Indotestuda elongata	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
31	Reptile	Turtle Indian Black (ssp. indopeninsularis)	Melanochelys trijuga indopeninsularis	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
32	Reptile	Common Sand Boa	Gongyl ophis conicus	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
33	Reptile	Common Vine Snake	Ahaetula nasuta	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
34	Reptile	Common Krait	Bungarus caeruleus	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
			<b>Total of Species (Sch III and IV)</b>	7	8	3	1	4	3	7	0	1	0	0	0	0	0	5	5	3	6	8	3	1
<b>Exotic Species</b>				<b>OPENING STOCK As on 01-04-2021</b>				<b>BIRTHS</b>			<b>ACQUISITIONS</b>			<b>DISPOSALS</b>			<b>DEATH</b>			<b>CLOSING STOCK As on 31.03.2022</b>				
				<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>M</b>	<b>F</b>	<b>U</b>	<b>T</b>	
35	Bird	Budgerigar	Melopsittacus undulatus	5	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	4	1
36	Bird	Cockatiel	Nymphicus hollandicus	9	1	7	2	0	0	9	0	0	0	0	0	0	0	0	0	0	9	1	1	3
37	Bird	Sun Conure/ Sun Parakeet	Aratinga solstitialis	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3

38	Bird	Emu	Dromai us novaeho llandiae	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	
39	Bird	Love Birds	Agapor nis roseicol lis	1 3	1 0	2	2 5	0	0	0	0	0	0	0	0	0	0	0	1	0	1 3	9	2	2 4
40	Bird	Macaw Blue & Yellow	Ara araraun a	1	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	1	2	4	
41	Bird	Macaw Red & Green	Ara chloropt era	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
42	Bird	Ostrich	Strithio camelus	1	0	0	1	0	0	0	1	2	0	0	0	0	1	1	0	1	1	0	2	
43	Bird	Grey Parrot /Jacquot/ Parakeet African Grey	Pistacu s erithacu s	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
44	Bird	Pheasant Lady Amherst 's	Chrysol ophus amherst iae	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	
45	Bird	Pheasant Silver	Lophura nycthe mera	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
46	Reptil e	Green Iguana	Iguana iguana	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
			<b>Total Exotic Species</b>	8 2	8 0	5 6	2 1 8	0	0	1 1	1	2	0	0	0	0	1	2	0	8 2	8 0	6 7	2 2 9	
			<b>Grand Total</b>	1 6 9	1 8 6	9 3	4 4 8	4	3	1 8	1	3	0	0	0	0	7	7	3	1 6 7	1 8 5	1 0 6	4 5 8	
End of Report																								

## 27. Mortality of animals

Sl. No.	Animal Name (with individual identification mark, if any)	Scientific Name	Sex	Date of Death	Reason of Death as per the Post-mortem report
1.	Golden Pheasant	<i>Chrysolophus pictus</i>	Female	08.04.2021	Died due to septicemia caused by infection of broken eggs inside.
2.	Love Bird	<i>Agapornis roseicollis</i>	Female	23.06.2021	Died due to pneumonia which caused Asphyxia.
3.	Ostrich	<i>Struthio camelus</i>	Male	03.06.2021	Died due to shock caused due to injury, dislocate of lateral aspect of right foot resulting in trauma & hematoma.
4.	Himalayan Goral	<i>Naemorhedus goral</i>	Female	24.07.2021	Died due to Acute Tympanitis which caused asphyxia
5.	Himalayan Goral	<i>Naemorhedus goral</i>	Female	31.07.2021	Died due to Shock because of multiorgan Failure
6.	Indian Muntjac/ Deer Barking (Kakar)	<i>Muntiacus muntjak</i>	Female	12.09.2021	Died due to Neuralgia which leads to shock.
7.	Himalayan Goral	<i>Naemorhedus goral</i>	Male	02.09.2021	Died due to chronic pneumonitis which leads fo Asphyxia
8.	Himalayan Goral	<i>Naemorhedus goral</i>	Male	10.09.2021	Died due to chronic pneumonitis which leads fo Asphyxia
9.	Himalayan Goral	<i>Naemorhedus goral</i>	Male	06.11.2021	Died due to chronic Acute tympanitis which leads to Asphyxia
10.	Himalayan Goral	<i>Naemorhedus goral</i>	Male	24.12.2021	Died due to chronic Acute tympanitis which caused Asphyxia
11.	Indian Muntjac/ Deer Barking (Kakar)	<i>Muntiacus muntjak</i>	Female	04.01.2022	Died due to Acute tympanitis which leads to Asphyxia
12.	Leopard	<i>Panthera pardus</i>	Male	23.01.2022	Died due to septicaemia and multiorgan failure because of presence of pud & blood in plural cavity & congested lungs, liver & Kidney.
13.	Brown wood owl	<i>Strix leptogrammica</i>	U	04.01.2022	Died due to Asphyxia by the acute pneumonitis.
14.	Brown wood owl	<i>Strix leptogrammica</i>	U	20.01.2022	Died due to Asphyxia by the acute pneumonitis.
15.	Ostrich	<i>Strithio camelus</i>	Female	01.01.2022	Died due to multiorgan failure due to prolonged recumbence from Rickets.
16.	Brown wood owl	<i>Strix leptogrammica</i>	U	17.03.2022	Died due to Asphyxia by the acute pneumonitis.
17.	Himalayan Vulture	<i>Gyps himalayensis</i>	Male	29.03.2022	Died due to Cardiac arrest.

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

### Details on compliance of the conditions stipulated by the Central Zoo Authority (as per the earlier letter of grant of recognition issued to the zoo)

- (1) File No. 19-123/93-CZA(Part), Computer No. 143363, Dated: 05.08.2022,
- (2) File No. 21-2/2019-CZA(Vol.I)(E)-Part(1) Computer No. 153933, Dated: 31.03.2021,
- (3) File No. 19-123/93-CZA(267)(Vol.II)(PKR)/2889/2018, Dated: 09.04.2018,
- (4) File No. 19-123/93-CZA(Vol.I)(267)(NS)/7592, Dated: 14.8.2015,
- (5) File No. 19-123/93-CZA(267)(M)/450, Dated: 09.03.2012,
- (6) File No. 19-123/93-CZA(267)(M) dated: 23.09.2009

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Remarks	
					Status with regard to compliance of the conditions as submitted by the Officer-in-charge of the Zoo	Status with regard to compliance as noted physically by the evaluator during the visit
<b>F.No.21-2/2019-CZA(Vol.I)(E)-Part(1) dated 31.03.2021</b>						
<b>2. Administrative and staffing pattern</b>						
1	10.2(2)	Since the zoo is housing endangered species, required scientific and technical staff under sub-rule (2) of Rule 9 under the Recognition of Zoo rules, 2009 should be appointed in the zoo	Six months	31.03.2021	Complied. Since it is a Mini Zoo, hence education officer, biologist and separate veterinarian is not required. However the dedicate veterinarian has been posted in the zoo. A snake- specialist is also appointed on contractual basis. The zoo keepers and supporting staff are also trained.	
<b>3. Development and planning</b>						
2	10.3(1)	Compliance with observation on Master Plan of the zoo should be submitted to the CZA as communicated	Immediately	31.03.2021	Conditional approval has been accorded by CZA	
<b>6. Veterinary and infrastructure facilities</b>						
3	10.6(3)	Separate quarantine and isolate facility should be developed in off-display area of the zoo	Six months	31.03.2021	Separate rescue centre for raptors and leopard has been constructed. Isolation wards has been provided in hospital.	
4	10.6(3)	Register on chemical mobilization of animals and usage of drugs should be maintained separately	Immediately	31.03.2021	Complied	
5	10.6(5)	Since the zoo is housing endangered species, required veterinary support staff should be appointed	Six months	31.03.2021	Not mandatory for mini zoo but process has been initiated and compounder/ lab assistant will be employed after the complete establishment of hospital.	
<b>F.No.19-123/93-CZA(267)(Vol.II)(PKR)/2859/2018 dated 19.04.2018</b>						
<b>1. General requirements</b>						
1	10.1(7)	The zoo should provide	Immediately	09.04.2018	Following steps were taken:-	

		a proper waste disposal system for treating both the solid and liquid wastes generated in the zoo. There should be waste disposal system having no adverse impact on the environment			<ul style="list-style-type: none"> <li>- Zoo is declared as plastic and polythene free area.</li> <li>- Installed plastic crushing machine for recycling of plastic.</li> <li>- Installed leaf shredder machine for composting of biodegradable waste.</li> <li>- Reused the plastic and other non-degradable waste for landscaping.</li> <li>- All liquid waste is collected in septic tank.</li> </ul>	
<b>2. Administrative and staffing pattern</b>						
2	10.2(1)	A full time officer in charge of the zoo should be posted with office in the zoo premises	One year	09.04.2018	By the special government order, the zoo is continued to headed by P. K. Patro who is in charge of Chief Conservator of Forest, Forest Panchayat and Community Forestry, Uttarakhand; Government has taken this decision to continue the tenure till the completion of the expansion plan of the zoo.	
3	10.2(2)	It is not a Mini Zoo. The endangered species has been housed by the zoo. Hence, the standard and norms applicable for small zoo has to be applicable	Immediately	09.04.2018	Till date Dehradun zoo is categorized as mini zoo by CZA. However by visualizing the future expansion plan and as per the master plan all provisions are made to meet the provisions of small zoo.	
4	10.2(2)	A full time veterinarian of the zoo should be posted with his hqrs. at the Veterinary Hospital of the zoo.	Immediately	09.04.2018	Though for mini zoo, full time veterinarian is not mandatory as per the CZA norms, yet, full time veterinarian was appointed in 2018 by government on deputation basis from animal husbandry department. Dr Rakesh Nautiyal is incharge of veterinary hospital of the zoo.	
5	10.2(2)	The zoo shall have an official with Master's Degree in wildlife Sciences/Zoology as a full time curator solely responsible for looking after the upkeep of animal and maintenance of animal enclosures	Immediately	09.04.2018	As per the norms of CZA, for mini zoo full time curator is not required, yet proposal was sent to government. After full expansion separate curator will be posted	
6	10.2(2)	There should be one Biologist also	Immediately	09.04.2018	As per the norms of CZA, for mini zoo full time biologist is not required, yet proposal was sent to government. After full expansion separate curator will be posted	
<b>3. Development and planning</b>						
7	10.3(1)	The zoo should prepare and get the Master Plan approved by CZA	Immediately	09.04.2018	Conditional approval has already accorded by CZA.	
8	10.3(3)	The pucca buildings	Immediately	09.04.2018	Complied, all buildings were	

		including the visitor facilities needs to be properly camouflaged and located in such a manner that the natural landscape of the zoo have not been masked and the cleanliness and hygiene of the zoo is not affected due to such animal enclosures/structures			coloured with natural shed and different species of plants and bamboos were planted to give it more natural. The cleanliness and hygiene has been maintained with highest standard.	
9	10.3(3)	The spotted deer enclosure should be made proper as per the CZA norms	Immediately	09.04.2018	Complied, As per master plan the spotted deer enclosure has been constructed as per CZA norms and most of the spotted deer are shifted to the new enclosure. Since the proposed area for visual display for tourists lies in safari area which is not opened for tourists so, only a few spotted deer are kept in old enclosure for display these will also be shifted to new enclosure after the completion of the Safari.	
10	10.3(6)	A collection plan of animals to be houses and displayed in the zoo should be prepared. The plan should be prepared keeping in view due regard to the availability of land, water, electricity and climatic condition of the area	Immediately	09.04.2018	Animal collection plan was sent along with the master plan. The present collection is as per the collection plan.	
11	10.3(6)(d)	The zoo should submit information to the CZA about the rescued animal that pertains to an endangered species	Immediately	09.04.2018	Endangered animals were not rescued by the zoo, however the details of animals rescued and treated has been annexed as <b>annexure-3</b>	
	<b>4. Animal housing, display of animals and animal enclosures</b>					
12	10.4(2)	The enclosures at the zoo does not meet biological and behaviour requirement of animals and require drastic modification and improvement as approved in the layout plan be implemented	One year	09.04.2018	Modifications were made as per the requirement of animals.	
13	10.4(2)	Height of the leopard enclosure should be increased covering the existing trees that would provide natural environment to the animals. The logs/timber etc. needs to be improved.	One year	09.04.2018	At present the height of the leopard enclosure is about 4 meter and as per the approved master layout plan the leopard enclosure will be relocated, hence modification was not made.	

14	10.4(5)	The leopards are kept in small enclosures without much scope for vertical movement due to top chain link fence at a height of 3-1/2 meters and enrichment needs to be improved	One year	09.04.2018	At present 2 leopards are kept in two different enclosures and the height is about 3.5 meter to 4 meter due to undulating surface and as per the approved master layout plan the leopard enclosure will be relocated, hence modification was not made..	
15	10.4(6)	Special efforts to enrich the environment of the enclosures should be taken as the enclosure enrichment is lacking	One year	09.04.2018	Complied by providing different furniture and natural enrichments. As per the approved master layout plan the leopard enclosure will be relocated, hence major modification was not made.	
16	10.4(9)	All the animal enclosures in the zoo should be provided with appropriate stand-off barriers and adequate warning signs for keeping the visitors at a safe distance from the animals	One year	09.04.2018	Complied. All enclosures were provided with proper standoff barriers as per the norms and adequate warning signs were provided at different places.	
17	10.4(9)	The zoo should plant hedge between the standoff barrier and the paddock wall in all enclosures	One year	09.04.2018	Complied. Live hedges were planted between the standoff barriers and enclosures.	
18	10.4(1)	Every enclosure in the Zoo should have a sign board in local language as well as in English displaying scientific information about biology and behaviour etc. of the animals exhibited in it	One year	09.04.2018	Complied. All enclosures were provided with proper and informative signs.	
	<b>5. Upkeep and healthcare of animal</b>					
19	10.5(2)	The meat handlers entering the facility should change into a clean and disinfected boots and coveralls	Immediately	09.04.2018	Complied with and meat handles were provided with boots and coveralls.	
20	10.5(2)	The meat handlers should use clean gloves when handling the meat	Immediately	09.04.2018	Complied and meat handlers were provided with gloves.	
21	10.5(3)	The meat house should be made fly proof	Immediately	09.04.2018	There is no separate meat house as the meat requirement is very less. All provisions are made in the kitchen. The kitchen has been made fly proof with flytraps and by maintaining hygiene.	
22	10.5(3)	Zoo should install a freezer of adequate capacity for storage of meat products till it is fed to the animals	Immediately	09.04.2018	Complied and freezer was procured.	
23	10.5(3)	The store house for food should be made rodent	Immediately	09.04.2018	Complied and all efforts were made to make the store rodent	



		proof and storage conditions of feed items need improvement to make it damp proof.			proof. All food items were stored in proper metal and plastic containers. Proper ventilation was provided to reduce dampness.	
24	10.5(4)	All herbivore enclosures should have a provision of a small enclosure cum shelter where feed is to be provided to the animal	One year	09.04.2018	Complied and shelters were provided.	
<b>6. Veterinary and infrastructure facilities</b>						
25	10.6(1)	The veterinary health care facility in the zoo should be made functional	Immediately	09.04.2018	Complied with. Many equipment were procured. OT has been established.	
26	10.6(1)	The zoo veterinary hospital should have basic diagnostic facilities and comprehensive range of drugs	Immediately	09.04.2018	Funds received from CZA in March, full-fledged veterinary hospital will be established by march. All necessary equipment were already procured.	
27	19.6(3)	The zoo should have isolation and quarantine facilities located away from the hospital	Immediately	09.04.2018	Isolation facilities have been provided in hospital.	
28	<b>10.6(3)</b>	Zoo should have a post-mortem room for conducting post-mortem as per the CZA guidelines	Immediately	09.04.2018	Funds received from CZA and separate post mortem house was established.	
29	10.6(5)	The zoo should have one qualified lab assistant/compounder to assist the veterinarian in healthcare of the zoo animals	Immediately	09.04.2018	Not mandatory for mini zoo but process has been initiated and compounder/ lab assistant will be employed after the complete establishment of hospital.	
30	10.6(6)	Zoo should have a formal MoU on health care with the nearest veterinary institution and the MoU should contain names and contact details of persons who will assist the zoo in all aspects in health care management	Immediately	09.04.2018	Full time veterinary doctor for the zoo has been posted and in his absence the veterinarian from Rajaji national park has been taking care of the animals of zoo.	
<b>9. Acquisition and breeding of animals</b>						
31	10.9(9)	To safeguard against uncontrolled growth in the population of prolific breeding species kept in the zoo, the zoo should implement appropriate population control measures	Immediately	09.04.2018	All animals were acquired recently, hence at present inbreeding is not an issue but in future all possible measures will be taken as per the master plan to prevent the inbreeding.	
32	10.9§)	The zoo should acquire mates for single animals (four species of turtle, tortoise, spotted owl, black buck (albino) etc.)	Immediately	09.04.2018	Complied. Black buck was died hence pairing is not required.	

		on priority basis				
33	10.9(10)	The zoo should maintain separate animal history cards. Treatment cards and herd sheet	Immediately	09.04.2018	Complied	
	<b>11. Education and outreach activities</b>					
34	10.11	The zoo should have appropriate signages and education and outreach activities for conservation education of the visitors of the zoo	One year	09.04.2018	Complied. Singes with all possible information were placed at different locations for conservation education.	
	<b>12. Visitor facilities</b>					
35	10.12(1)	The zoo should provide adequate civic facilities for visitors at appropriate and convenient places within the zoo which should be accessible to the physically disadvantages persons	Immediately	09.04.2018	Complied. Toilet and wash room facilities were provided at 4 places, RO drinking water facilities were provided at 3 locations, 2 rest sheds were provided. Benches were provided at different locations. Ramps were provided at all locations. Wheel chairs were provided at entry gate. Disability audit was conducted in the month of January 2020 and after receiving the audit report the further construction and measures are taken to make the zoo disable friendly.	
36	10.12(3)	Appropriate arrangements should be made to provide access within the zoo to physically disadvantaged visitors including those in the wheel chair at all enclosures and civic facilities	Immediately	09.04.2018	Ramps were provided at all locations. Wheel chairs were provided at entry gate. Disability audit was conducted in the month of January 2020 and after receiving the audit report the further construction and measures will be taken to make the zoo disable friendly.	
F.No.19-123/93-CZA(Vol.I)(267)(NS)/7592 dated 14.08.2015						
	<b>1. General requirements</b>					
1	1(1)	The mini zoo is having in its collection birds, mammals and reptiles and is in the process of improving enclosures as per the layout plan. Zoo has to strengthen conservation education and create interpretation facility in order to convey credible conservation message	Six months	14.08.2015	Complied	
2	1(1)	The population of spotted deer housed at the zoo and needs to be controlled by segregation of animal during rutting season and by birth control measures	Three months	14.08.2015	Complied	

3	1(3)	The circulation path for visitors as shown in the approved layout plan should be completed for movement of visitors	Three months	14.08.2015	Complied	
<b>2. Administrative and staffing pattern</b>						
4	2(1)	Full time officer in the rank of ACF should be posted with adequate administrative and financial power as at present the DFO, Dehradun is the zoo operator in addition to his territorial works	Three months	14.08.2015	At present not required, but after the full expansion of zoo and completion of the animal collection adequate administrative setup arrangement will be made. By the special government order, the zoo is continued to headed by P. K. Patro who is in charge of Chief Conservator of Forest, Forest Panchayat and Community Forestry, Uttarakhand; Government has taken this decision to continue the tenure till the completion of the expansion plan of the zoo.	
5	2(2)	There are 04 animal keepers, which are grossly inadequate for maintenance and upkeep of animals and should be increased	Three months	14.08.2015	Complied, Since the zoo is in its developing phase and due to lack of sufficient funds the number of zoo keepers was not increased but contractual employees of the zoo who are trained acts as supporting staff with zoo keepers in the upkeep of animals. With the expansion of the zoo according to the master plan the number of zoo keepers will definitely be increased accordingly.	
<b>3. Development and planning</b>						
6	3(5)	Zoo has accepted rescued animal for which it does not have appropriately designed enclosure and upkeep facilities as well as the facilities for keeping it in isolation during quarantine period. The Rescue Centre and other facilities should be constructed as per approved layout plan and design	Three months	14.08.2015	Under the guidelines of the CZA, zoo has a leopard rescue centre and a raptors rescue centre which are functional, other rescued animals after treatment are generally returned to the respective forest divisions.	
<b>4. Animal housing, display of animals and animal enclosures</b>						
7	4(2)	The enclosures at the zoo does not meet biological and behaviour requirement of animals and require drastic modification and	Six months	14.08.2015	Modifications were made as per the requirement of animals.	

		improvement as approved in the layout plan				
8	4(3)	The safety features both for visitors and animal keepers have to be upgrade as the night shelters for leopard is close to the visitor path and there is no proper animal keeper gallery	Six months	14.08.2015	Complied. The leopard enclosure is to be relocated according to the master plan as per CZA norms new leopard enclosure has been constructed. Since the new location of leopard enclosure is in Safari area, which is not opened for tourist as is not completely developed. So the leopards are currently displayed in these enclosures only for time being. Leopards will be shifted to their new enclosures hence modification was not made.	
9	4(5)	The leopards are kept in small enclosures without much scope for veridical movement due to top chain link fence at a height of 3-1/2 meters and enrichment needs to be improved. The mixed species enclosure for all herbivores comprising of chital, sambar, barking deer and goral needs to be improved with separate enclosure for each animal as approved in the layout plan	Immediate	14.08.2015	At present leopards are kept in the displayed enclosure and the height is about 3.5 meter to 4 meter due to undulating surface. The leopard enclosure is to be relocated according to the master plan as per CZA norms new leopard enclosure has been constructed. Since the new location of leopard enclosure is in Safari area, which is not opened for tourist as is not completely developed. So the leopards are currently displayed in these enclosures only for time being. Leopards will be shifted to their new enclosures hence modification was not made.	
10	4(9)	Standoff barriers have to be reconstructed in few enclosures as per CZA specification. Additional sign boards are required	One month	14.08.2015	Complied. A few enclosures are to be relocated in the Safari region hence modification was not made.	
	<b>5. Upkeep &amp; Healthcare of animals</b>					
11	5(1)	Provision of foot bath of adequate size with proper disinfectant at entry and exit points of animal house should be provided	One month	14.08.2015	Yes, placed at all the entry points to enclosures, hospital and kitchen.	
12	5(2)	The store house for food is inadequate and storage conditions need improvement and meat house should be separately provided	Two months	14.08.2015	The store house for food is well maintained, all efforts are made to make the store rodent proof. All food items are stored in proper metal and plastic containers. Proper ventilation is provided to reduce dampness. Meat is kept in separate room. There is no separate meat house as the meat requirement is very less. All provisions are made in the	

					kitchen. The kitchen has been made fly proof with flytraps and by maintaining hygiene.	
13	5(3)	Written schedule of vaccination and deworming should be prepared and displayed at the enclosure	Immediate	14.08.2015	Yes	
14	5(3)	The zoo should maintain records of the observation and social behaviour, health status, feed intake and treatment. Animal keeper's diary, daily reports and history cards and treatment cards should be maintained in the formats as prescribed by CZA.	Immediate	14.08.2015	Yes	
	<b>6. Veterinary and infrastructure facilities</b>					
15	6(1)	The zoo should have isolation and quarantine facilities located away from hospital	Immediate	14.08.2015	Will be complied in next few months	
16	6(1)	The zoo veterinary hospital should have basic diagnostic facilities and comprehensive range of drugs	Immediate	14.08.2015	Funds received from CZA in March 2019, full-fledged veterinary hospital is established by. Many equipments with x-ray and biochemical laboratory is procured only few steps away in completion of the full-fledged veterinary hospital.	
17	6(3)	The zoo should have a post-mortem room in the location as approved in the layout plan	Six months	14.08.2015	Funds received from CZA and separate post mortem house was established.	
	<b>9. Acquisition and breeding of animals</b>					
18	9(4)	The black buck, turtle, red jungle fowl and sambar have to be paired on priority basis and if unable to pair, the zoo should transfer the animals or give on breeding loan to any other zoo in accordance with the norms specified by CZA	Three months	14.08.2015	Complied. Black buck was dead hence pairing is not required.	
	<b>12. Visitors facilities</b>					
19	12(1)	a) Directional signages should be provided at every crossing at the zoo b) Roads, paths and lawns	One month Six months	<b>14.08.2015</b> <b>14.08.2015</b>	Complied. Required steps are taken to improve directional signage at every crossing of the zoo. Roads, paths and lawns are made smooth and presentable accordingly.	

		should be made smooth and presentable				
20	12(2)	First-aid kit and anti-snake venom should be kept at the zoo premises	Three months	14.08.2015	First-aid kit and anti-snake venom are always available at the zoo office.	
21	12(3)	Ramp should be made for physically challenged visitors	Six months	14.08.2015	Complied. Ramp at all locations is made for physically challenged visitors.	

**Rule 10: Standards and Norms subject to which recognition under section 38H of the Act shall be considered.**

Norm No.	Condition	Detailed status of implementation and enclosure specific recommendation	
		To be filled by the Zoo Director	Comments of the Evaluating Officers
<b>1. General requirements</b>			
1.1	Does the zoo make efforts to maintain population of physically, genetically and behaviorally healthy animals for furthering the cause of wildlife conservation and communicating credible conservation message to the visitors?	This is a new zoo and the process of animal collection as per the collection plan incorporated in the master plan is going on. All efforts are being made to maintain population of physically, genetically and behaviorally healthy animals for furthering the cause of wildlife conservation and communicating credible conservation message to the visitors	
	b) If not please specify cases where it is violated? * Only in cases where stud books are maintained	-	
	(c) If any introduction of new blood has been made after last evaluation to increase the genetic viability of animals.	No, as all animals were acquired recently and due to covid-19 and Avian influenza/ Bird flu protocol introduction of no newblood has been made after last evaluation to increase the genetic viability of animals.	
1.2	Whether any endeavour has been made for proper landscaping and planting of appropriate species done to provide a naturalistic environment within the zoo?	Yes, all efforts were made for proper landscaping and planting of appropriate species to provide a naturalistic environment within the zoo.	
	(b) If not indicate cases of deviation.	-	
1.3	(a) Whether the movement of visitors in the zoo has been regulated in such a manner that zoo animals are not unduly disturbed?	Yes, the movement of visitors within the zoo has been regulated and staffs were deployed at important locations. CC TV Cameras were placed at important locations to monitor the visitors. Proper signage were also placed.	
	(b) Is the zoo closed to visitors at least one day in a week?	Yes	
	(c) Which day?	Monday	
1.4	(a) Whether the zoo has appropriate barriers along the boundary of the zoo in accordance with the standards issued by the Central Zoo Authority, as a safeguard against the un-regulated access of visitors to the zoo and zoo animals and being subjected to injury, pilferage and predation?	Yes, two layer chainlink fence were established along the boundary of the zoo in accordance with the standards issued by the Central Zoo Authority, as a safeguard against the un-regulated access of visitors to the zoo and zoo animals and being subjected to injury, pilferage and predation	
	(b) If not which stretch and its length?	-	
1.5	(a) Is the zoo surrounded by human landscape?	Partly on one side, 500 meters and rest of the boundary is surrounded by reserve forest	

		area.																										
	(b) If yes, whether encompassed by a perimeter wall of at least two meter in height from the ground level on both sides?	6 meter Double chain link fence is present																										
1.6	(a) Is there residential colony constructed within the zoo premises?	No, all residential colony is established outside but near the zoo, across the road.																										
	(b) If yes, whether separated by wall from the zoo premises by a boundary wall with a minimum height of two meters from the ground level?	-																										
	(c) Is the entry to the residential colony through the zoo premises?	No																										
1.7	(a) What are arrangements for managing solid and liquid waste and storm water?	Arranged, described earlier in compliance report.																										
	(b) Is it adequate?	Yes																										
	(c) What are the short comings?	-																										
1.8	(a) Is the zoo displaying sick, injured, infirm and tethered animals to the visitors?	No																										
	(b) If yes, what are the species and each of their number?	-																										
1.9	a) Is the zoo housing domestic animals within the zoo premises?	No																										
	b) Is there adequate safeguards in place to prevent the entry of domestic livestock, stray animals and pets into the zoo premises?	Yes, zoo periphery is protected by 6 meter high double chain link fence. Proper signage also placed at the entry.																										
<b>2. Administrative &amp; Staffing Pattern</b>																												
2.1	Does the zoo have an officer of appropriate rank as "whole time in-charge" of the zoo with powers to take decision and ensure that adequate financial resources and infrastructural support is made available to such officer for proper housing, upkeep and healthcare of the zoo animals and managing the zoo in a planned manner?	Yes, at present CCF rank officer is incharge of the zoo, who is also member secretary of zoo society with appropriate financial resources and administrative power.																										
2.2	Does the zoo have adequate scientific and technical staff to support the officer-in-charge of the zoo in carrying out the responsibilities of housing, upkeep and healthcare of zoo animals, research and visitor education as specified in the Table below, namely:	Mini Zoo, hence education officer, biologist and separate veterinarian is not required. However the dedicate veterinarian has been posted in the zoo.																										
	<table border="1"> <thead> <tr> <th>Sl</th> <th>Category of staff</th> <th>Large zoo</th> <th>Medium zoo</th> <th>Small zoo</th> </tr> </thead> <tbody> <tr> <td></td> <td>Curator</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td></td> <td>Veterinarian</td> <td>2</td> <td>1</td> <td>1</td> </tr> <tr> <td></td> <td>Education officer</td> <td>1</td> <td>1</td> <td></td> </tr> <tr> <td></td> <td>Biologist</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>	Sl	Category of staff	Large zoo	Medium zoo	Small zoo		Curator	1	1	1		Veterinarian	2	1	1		Education officer	1	1			Biologist	1	1	1		
Sl	Category of staff	Large zoo	Medium zoo	Small zoo																								
	Curator	1	1	1																								
	Veterinarian	2	1	1																								
	Education officer	1	1																									
	Biologist	1	1	1																								
2.3	If the scientific and technical posts are filled by direct recruitment, does the recruitment rule for such posts provide for their carrier progression including the benefit of flexible complementing scheme for their promotions?	NA																										
2.4	In the event of emergency, what is the response time when the veterinarian is off the premises (i.e. distance between officer, residence and zoo)	Within 45 minutes. Emergency protocol has been incorporated in master plan.																										
<b>3. Development and planning</b>																												
3.1	(a) Has the zoo prepared and got the master plan approved by the Central Zoo Authority?	Yes,																										
	(b) If not, what is the stage?	Conditional Approval accorded.																										
3.2	(a) Has at least 30% of the area earmarked for the zoo been kept under green belt and natural vegetation and the area for animal housing does not exceed 30% area of the zoo?	Yes more than 80 % area is covered by natural forest.																										
	(b) If not, approx what percentage?	-																										

3.3	( a)Have all 'pucca' buildings including the visitor facilities been planned and located in such a manner that the natural landscape of the zoo have not been masked and the cleanliness and hygiene of the zoo is not been affected due to such animal enclosures/structures? (b)If not what improvements are suggested?	Yes, efforts made so far are mentioned in compliance report. -	
3.4	Has the zoo prepared a collection plan in consultation with the Central Zoo Authority, indicating the names of the species and maximum number of animals of each species to be housed in the zoo, having due regard to the congeniality of the climatic conditions of the locality for the general health and well being of the species, availability of space and infrastructural support for proper upkeep and healthcare of the species, proximity of the zoo to the habitat range of the species and the past record of the zoo in management and breeding of the species and the zoo is not compromising on housing and upkeep standards of animals for accommodating new species or additional animals of the species in its collection?	Yes, it is incorporated in master plan.	
3.5	(a)Has the zoo accepted any rescued animal for which it does not have appropriately designed enclosure and upkeep facilities as well as the facilities for keeping it in isolation during quarantine period? (b)If yes which species and from where received? (c) The location of quarantine and isolation area?	Yes, for treatment only. Most of the animals are received from adjoining forest divisions. Different species of animals such as birds, monkey and Leopard. At present this facility is not available, after treatment animals are generally returned to the respective forest divisions.	
3.6	a) Has the zoo accepted any rescued animal for housing? b) If so what is the species and number? c) Has the details been reported to CWLW of the state including a detailed report regarding the source from which the animal has been received, legality of its acquisition and the facilities available at the zoo for housing, upkeep and healthcare? d) If the rescued animal pertains to an endangered species whether a copy of the report has been sent to the Central Zoo Authority?	No. - - NA	
3.7	(a)Whether the Central Zoo Authority has advised to transfer any animal to a particular zoo for augmenting the number of founder animals for the conservation breeding program? (b)Whether the same has been complied with? (c)If not, why?	No NA NA	
4.1	(a)Are the animals displayed in nature immersing (naturalistic) enclosures? (b)How many such enclosures for which species exist?	Yes, details are given in the compliance report. -	
4.2	(a)If the designs and dimensions of various enclosures have been decided having due regard to the biological behavior of the species and the number of animals to be housed	Yes, except leopard all the designs and dimensions of various enclosures have been decided having due regard to the biological behaviour of the species and the number of animals to be housed	
4.3	(a)Are the enclosures safe and secure for the	Yes,	



	animals, animal keepers and the visitors and has requisite space for free movement, exercise and expression of their natural behavior? (b) If not, in which cases?	-	
4.4	(a)Is adequate space available to the animals in order to maintain safe distance from the dominant animals in the group or herd? (b) If not, in which cases?	Yes -	
4.5	Which animals are kept in substandard enclosures as per CZA specification?	Leopard	
4.6	(a)Has efforts been made to enrich the environment of the enclosures to meet the specific behavioural requirements of the animals in accordance with the standards specified by the Central Zoo Authority? (b)Where are the deviations?	Yes, details already given in compliance report. -	
4.7	(a)Has adequate screening been provided between adjacent enclosures to safeguard against the animals getting unduly excited or stressed due to visibility of animals housed in these enclosures? (b)What are the deviations?	Yes, natural screening has been done with plantation of bamboo and other species. -	
4.8	(a)Has any new enclosure for endangered species constructed without prior approval of the Central Zoo Authority? (b)If yes, which ones and why?	No -	
4.9	(a)Has the zoo provided appropriately designed and effective standoff barriers at every animal display enclosure to regulate the movement of visitors in the zoo in a manner that facilitates the visitors in getting unobstructed view of wild animals, without reaching in the vicinity or proximity of the animals and getting the opportunity to physically touch or provoke the animals and are there adequate sign boards so as to give warning to the visitors to keep a safe distance from the animals? (b)Where are the deviations?	Yes, details already given in the compliance report. -	
4.10	(a)Have appropriate signage been provided with relevant information on the biology, behavior and the population status of the species in the wild at every display enclosure? (b) If any deviations, details thereof. (c)In case of large and medium zoos whether interactive interpretation facilities have been provided for the purpose of explaining behaviour and biology of the species displayed in the enclosure? (d) Details thereof.	Yes, details already given in the compliance report. - NA, as it is a mini zoo. -	
<b>5. Upkeep and healthcare of animals</b>			
5.1	<b>Enclosures and animal facilities</b> (a) Whether the animals in its collection are maintained in socially and behaviorally viable groups? (b) If any animal is separated from the group, the justification for the same and whether the animals, so separated, have been housed in accordance with standards specified by the Central Zoo Authority in this regard. (c) Whether the food containers and water bowls are cleaned and disinfected on daily basis?	Yes, the animals in its collection are maintained in socially and behaviourally viable groups. - Yes	

	(d) Whether grills and floor of feeding cells, night shelters and chain link fence of outdoor enclosures are being disinfected on routine basis.	Yes, by means of KMnO <sub>4</sub> , kharsoline, lime, turmeric powder.	
	(e) Whether perches and shelves are cleaned regularly and kept free of faeces and urine?	Yes	
	(f) Whether dirt substrates in outdoor planted exhibits are raked and spot- cleaned periodically?	Yes	
	(g) Whether the zoo has provision of secondary holding areas for safe movement of animals from primary enclosures for cleaning/ feeding/ medical procedures?	No	
	(h) Provision of footbath of adequate size with proper disinfectant at entry and exit points of animal house is provided or not?	Yes, placed at all the entry points to enclosures, hospital and kitchen.	
	(i) Whether the indoor exhibits have separate ventilation system between exhibits and visitors area to reduce the potentials of disease transmission, in case of reptile and nocturnal animal houses?	Except snake house and aquarium all exhibits are out-door and in these two indoor facilities proper ventilation has been provided.	
	(j) Whether the drainage system is covered properly and away from animal houses?	Yes, all drainage systems have been covered properly and away from animal houses.	
5.2	<b>Nutrition and food hygiene</b> <b>General</b> 1. Are the animals ensured timely supply of :		
	(a) adequate quality feed as per species specific diet of such a composition and in such quantities that nutritional and physiological requirement of each animal is fully met and no animal remains under-nourished on account of dominant animals not permitting other animals getting their share of the feed?	Yes, diet chart has been made as per specification and timely feeding has been carried out.	
	(b) Is round the clock supply of potable water to all the animals is ensured?	Yes, two separate tube-wells have been used for supply of potable water.	
	2. Whether inventory of daily received and distribution record of food items is maintained?	Yes, proper register has been maintained.	
	3. Whether the storage conditions of the food items are appropriate (free from moisture, moulds and pests)?	Yes, the storage conditions of the food items are appropriate (free from moisture, moulds and pests) separate storage facility has been provided.	
	4. Whether the food storage facilities and working platforms are cleaned and disinfected on regular basis?	Yes, on daily basis it has been cleaned with disinfectants.	
	5. Whether the regular inspection of food items is being done for its quality and freshness and transported hygienically to the respective enclosures?	Yes, regularly it has been checked by the concerned staff and range officers.	
	6. Whether random food and water samples are being tested periodically for microbiological, toxicological and any other contaminants at recognized laboratory	Yes, food sample are checked by range officer, veterinary officer and director also sample of water are being tested periodically for microbiological, toxicological and any other contaminants at recognized laboratory	
	<b>Carnivore food and hygiene</b> 1. Whether the meat house is fly proof and pest free and located at a reasonable distance from the feed store and kitchen?	NA	
	2. Whether the zoo maintains strict hygienic conditions in the entire food stream, from the butchery to feeding platforms in order to prevent food contamination and overgrowth of potential pathogenic bacteria?	Yes, the meat quantity is very less hence processed meat has been procured from outside.	

	3. Whether the zoo has a sufficient size functioning freezer in the meat processing facility for storage of meat products and to keep cold until it is fed?	Yes	
	4. Whether the meat handlers entering the facility change into a clean and disinfected boots and coveralls?	Yes, details given in compliance report.	
	5. Whether the meat handlers use clean gloves when handling the meat?	Yes, details given in compliance report.	
	6. Whether the meat preparation facility is thoroughly cleaned and disinfected on regular basis after the meat preparation is completed?	Yes, the meat quantity is very less hence processed meat has been procured from outside.	
	7. Whether there is a covered drainage system to prevent wastes and water from the meat preparation facility from draining onto the ground surrounding the facility where foot traffic will carry pathogens around and where wildlife may become exposed to the waste?	Yes	
	8. Whether the meat is fed on a clean and disinfected surface and at a time when the animal will consume it as quickly as possible?	Yes	
	9. Whether the keepers use clean gloves, if they handle the meat prior to feeding?	Yes	
	<b>Food distribution</b> 1. (a) Is the timing of distribution of food, placement of food and way of distribution of food to the animals regulated in such a manner that the animals get maximum opportunity to express natural instincts and skills and behaviour related to feeding?	Yes, animal no. in each enclosure is minimum hence presently it is not an issue.	
	<b>Removal of unused feed and excreta</b> Are the left over feed, excreta of animals and all other wastes are removed promptly from the feeding cells and kraals and the feeding cells and kraals are washed and disinfected as per the advice of the authorized veterinary officers and the solid and the liquid waste generated during the process are disposed off in such manner that has no adverse impact on the hygiene and cleanliness of the zoo and the landscape surrounding the zoo?	Yes	
	(a) In which cases improvement is recommended?	-	
	(b) Are the dimensions and designs of the feeding cells and kraal as per the standards specified by the Central Zoo Authority?	Yes	
	(c) Cases of deviation, if any?	No.	
5.3	<b>Visual observation on daily activity pattern of animals and preventive healthcare</b> 1. (a) Do the curatorial and the veterinary staff keep a close watch on the general behavior and health parameters of the zoo animals?	Yes, it is maintained in a proper format, annexed as annexure 4	
	(b) Are the animals handled only by the staff having experience and training in handling the individual animals?	Yes	
	(c) Whether periodical health monitoring of animals have been carried out regularly?	Yes	
	2. If any animal shows any sign of dullness, loss of appetite, injury or abnormal behaviour: is the animal thoroughly assessed and provided medical attention promptly as per the standards specified by the Central Zoo Authority in this regard from time to time and the direction of the zoo administration?	Yes	

	3. Is every zoo animal screened for parasitic loads as per written schedule prepared by the zoo in consultation with the veterinary officer and prophylactic medicines administered as per clinical requirements and vaccination of animals against infectious diseases are also done, as per the schedule prescribed by the Veterinary Officer from time to time?	Yes, it was done in 2018, 2019, 2020 & 2022. Each and every animal of the zoo was screened for ectendo parasitic loads by the schedule in our zoo pathology by the veterinarian. We took measures for the prophylactic vaccination as a precaution done by the department of animal husbandry around the zoo for domestic animals as a ring vaccination against FMD, HS, BQ for ruminant, rabies, CD and other vaccination done with the state animal husbandry department around the zoo periphery.	
	4. Whether the zoo have written schedule of vaccination and de-worming of different species of the zoo animals and displayed at the enclosure site?	Yes	
	5. Does the zoo maintains detailed records of observations of biological and social behaviour and health status of the animals including feed intake, medication and treatment provided in the keeper's diary, daily reports, animal history cards and treatment cards, as per standards specified by the Central Zoo Authority?	Yes	
	6. Are all staff involved with upkeep and healthcare of zoo animals screened against zoonotic diseases once every year and those found positive to any communicable disease are provided appropriate treatment till they get cured and become free of the infection and during the period of such treatment, the infected employees are kept away from the responsibility of upkeep and healthcare of the animals?	Yes, latest in September 2021. No staff involved with upkeep and healthcare of zoo animals was found positive.	
	7. Whether the zoo has clause of employing a zoo keeper temporarily ailing for usefully utilizing them elsewhere in the zoo in the intervening period.	No	
	8. Every zoo should have formal linkages through a MoU on healthcare, preventive, health management, surgical interventions, clinical tests, disease diagnosis and consultation in treatment and management during the period of convalescence.	No	
	(a) Whether the zoo has any such MoU with the nearest veterinary institution?	No	
	(b) Whether the MoU contains names and contact details of person/ persons to be contacted to assist zoo management in all aspects in health management for zoo animals?	No	
<b>6. Veterinary and Infrastructure Facilities</b>			
6.1	<b>Zoo hospital</b> (a) Are veterinary facilities appropriate to the size and type of the animal collection of the zoo including isolation ward and quarantine facilities located away from the hospital and other animal collections?	As it is a mini zoo, hospital is not mandatory; however a separate hospital has been established. Quarantine facility is not present.	
	(b) Does the zoo have a full fledged veterinary unit with all basic diagnostic facilities, pharmacy, diagnostic and treatment room, comprehensive range of drugs, operation theatre and in-patient wards?	Yes, recently established with financial assistance from CZA.	
	(c) Are there suitable and appropriately designed holding facilities for animals requiring extensive	Yes, but under the process of development.	

medical care?		
(d) Whether the veterinary facilities have a separate area / room for equipment cleaning and sterilization?	Yes	
(e) Whether the zoo has basic hospital and monitoring equipment:		
✓ refrigerator (50C)	Yes	
✓ stethoscope	Yes	
✓ freezer (-170C)	No	
✓ scales for weighing animals	Yes	
✓ transponders for animal ID and transponder reader	-	
✓ ultra-low freezer (-700C) for serum banking and diagnostic samples	No	
✓ ophthalmoscope	Yes	
✓ otoscope,	Yes	
✓ thermometer	Yes	
✓ capture equipment (i.e. darts and dart projectors)	Yes	
✓ laryngoscope and blades	Yes	
✓ endotracheal tubes	Yes	
✓ oxygen support (regulators and demand valves)	Yes	
✓ inhalation anesthesia machine that can support a tiger-sized animal	-	
✓ isoflurane vaporizer	Yes	
✓ anesthesia monitoring equipment (single or multiparameter)	-	
✓ pulse oximeter	Yes	
✓ ECG (blood pressure monitor included)	-	
✓ basic surgery instruments	Yes	
✓ surgical light	Yes	
✓ autoclave	Yes	
✓ basic dental instruments	Yes	
(f) Whether the zoo has basic diagnostic support to enable and make rapid assessments of physiologic status of sick and injured animals:		
✓ Hematocrit and hematocrit centrifuge for Packet Cell Volume	Yes	
✓ Hand-held refractometer for Total Serum Solids	-	
✓ Hemacytometer and associated items for Manual RBC and WBC counts	-	
✓ Standard laboratory centrifuge, microscope and glassware for Fecal Parasite Examination	Yes	
✓ Standard laboratory centrifuge and glassware for Serum / Plasma separation	Yes	
g) Whether the zoo has arrangements of reference laboratory support and rapid transportation of diagnostic samples to nearest veterinary institution equipped with following facilities: ✓ Automated blood cell counting ✓ Clinical chemistry ✓ Bacterial culture and antibiotic susceptibility ✓ Viral isolation and identification ✓ Antibody/ antigen serology ✓ Pathogen identification through ELISA or PCR	Yes, at present the facility of animal husbandry department situated at Rishikesh has been used. Procurement of few equipment is under process.	

	<ul style="list-style-type: none"> <li>✓ Toxic agent analysis</li> <li>✓ Parasite identification</li> </ul>														
	(h) Has the zoo acquired sophisticated and costly diagnostic equipments for which there are no technically qualified manpower to operate and use the same?	No only useful equipments has been procured.													
	(i) Whether the veterinarian and technician have requisite training for equipment use and data analysis?	Yes													
	(j) Are there proper storage facilities for various medicaments and chemical immobilization drugs?	Yes													
	(k) If a mini zoo, does it have at least facilities of a treatment room?	Yes, it has a separate hospital and dedicated doctor.													
6.2	<b>Animal restraint</b> (1) Whether the zoo has appropriate animal restraint equipment, accessories and drugs ?	Yes, restrain drugs kept in the possession of the veterinary officer and maintained in medicine register.													
	(2) Whether the animal restraint equipment are being kept and maintained as per standard protocol ?	Yes													
	(3) Whether the veterinarian and technician have requisite training in equipment use and animal restraint techniques including handling of drugs and management of human emergencies?	Yes, doctor has been trained at WII.													
	(4) Is it the restraint of an animal requiring chemical immobilization done exercising utmost care and following the standards specified in this regard by the Central Zoo Authority from time to time?	Yes													
	(5) Whether the veterinarian has requisite training in Animal immobilization with specific reference to wildlife?	Yes, trained at WII and sent for exposure visit under ZSL project to foreign country.													
	(6) Is there a dedicated refrigerator for storage of chemical restraint drugs?	Yes													
6.3	<b>Veterinary Support staff</b> Does the zoo have the zoo veterinary support staff as specified in the Table below ; namely –	Mini Zoo, Hence NA													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S.No.</th> <th style="width: 60%;">Support staff</th> <th style="width: 15%;">Large Zoo</th> <th style="width: 15%;">Mini Zoo</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Lab Assistant (Technician)</td> <td>1</td> <td></td> </tr> <tr> <td>2</td> <td>Stockman / compounder</td> <td>2</td> <td></td> </tr> </tbody> </table>	S.No.	Support staff	Large Zoo	Mini Zoo	1	Lab Assistant (Technician)	1		2	Stockman / compounder	2			
S.No.	Support staff	Large Zoo	Mini Zoo												
1	Lab Assistant (Technician)	1													
2	Stockman / compounder	2													
6.4	<b>Wildlife veterinary medical education and training</b> 1. Does the zoo have linkages with the eminent institutions and organizations working in the field of wild animal healthcare with the objectives to provide for : <ul style="list-style-type: none"> <li>a) Assistance in scientific diagnosis of diseases of serious nature and advice on the effective remedial treatment.</li> <li>b) Training and upgrading technical skills of animal health staff.</li> <li>c) Development of protocols for preventive medicines and vaccination</li> </ul>	Yes zoo has coordination with WII and Panthnagar university.													
	2. Whether the veterinary officer has requisite training/education in wildlife medicine/health?	Yes, already explained.													

	3. Whether the zoo has any training programme/residency for skill development for the zoo veterinary medical officer in wildlife medicine in a large foreign zoo ?	No	
<b>7. Post-mortem and disposal of carcasses of animals</b>			
7.1	Post mortem facilities 1. Does the zoo; unless it is mini zoo have a modern post mortem room, equipped with sufficient light and post mortem equipment?	Though the zoo is a mini zoo, a separate postmortem house has been constructed with financial assistance from CZA.	
	2. Whether the zoo veterinarian has specialized knowledge and skills in wildlife pathology?	Yes	
	3. Is there availability of pathology support from nearest veterinary institution to provide specialized capabilities and consultation particularly for post mortem of an endangered species requiring definitive diagnosis and collection of samples in a scientific way and as per protocols required by reference laboratories / veterinary institute?	Details already provided in previous point.	
	4. Does every animal dying in the zoo is being subjected to a detailed post mortem examination by registered veterinarian to determine conclusively the cause of the death?	Yes	
7.2	Are the findings of the post-mortem examination referred to in sub-paragraph (1) recorded in such format as have been prescribed by Central Zoo Authority in this regard and is it maintained for a period of not less than six years?	Such situation not yet arise, but it will be followed in such situation.	
7.3	1. In the event of the post mortem being inconclusive and no specific reason for death is identified, do the zoo authorities send the samples of the tissues and organs, blood, viscera etc. for further examination to the qualified diagnostic laboratory having adequate specialization for further investigation and identifying the cause of death?	Such situation not yet arise, but it will be followed in such situation.	
	2. Whether the post mortem report is corroborated with other diagnostic findings in consultation with specialized reference laboratories / veterinary institutions?	Such situation not yet arise, but it will be followed in such situation.	
7.4	Does the zoo ensure that the carcasses of the animals, after the post-mortem has been conducted, is disposed off by burying or burning in a manner that does not have any adverse impact on the hygiene and cleanliness of the zoo ?	Yes	
	a) Are the carcasses of large cats disposed off by burning in the presence of Director of the zoo or any officer in the next rank to him and authorized by him in this behalf?	-	
	b) Are the carcasses of animals which died due to Anthrax or such other communicable diseases not opened and subjected to post-mortem, as a safeguard against spread of the disease and they are buried intact?	No	
<b>8. Euthanasia</b>			
8.1	No animal in the zoo shall be euthanized unless doing so is essential for relieving from suffering from incurable disease /condition as per the norms of CZA.	Not yet done but the condition will be followed when situation demand.	
<b>9. Acquisition and breeding of animals</b>			

9.1	Are animals of various species kept and maintained in social viable groups and with such a sex ratio that optimizes breeding and helps in developing a self-sustaining population of each species?	Yes	
9.2	(a) Has the zoo acquired animals based on scientific assessment of its lineage and genetic relatedness to Safeguard against ill effects of inbreeding on the zoo population, through exchange, loaning and getting gifts of animals from other zoos? (b) If there is any deviation, details thereof.	Animals are acquired after due permission from CZA. -	
9.3	(a) Has the zoo acquired single animals or genetically non-viable number of animals unless such acquisition is necessary for pairing of single animals or making the group genetically/ biologically viable? (b) Please indicate such cases.	No -	
9.4	(a) Has the zoo tried to acquire mates for single and unpaired animals on priority basis and in the event of any zoo failing to find a mate for single and unpaired animal within a period of six months, the unpaired or single animal have been transferred or exchanged or given on breeding loan to any other zoo in accordance with the norms specified by the Central Zoo Authority in this regard? (b) Please indicate unpaired species, its sex and for the period it has been kept unpaired.	Yes -	
9.5	Has the zoo transported animals from one place to another and if so CZA transportation protocols were followed? For the purpose of transportation of animals from one place to another, are the standards specified in this regard by the CZA complied with.	No	
9.6	a. Has the Central Zoo Authority assigned any endangered species for Conservation Breeding Programme to the zoo, if so please indicate? b. If a scientific conservation breeding plan species recovery plans for the species have been prepared or not? If the plan is being followed by the zoo? c. Is the Conservation Breeding Facility situated in off display area of the zoo? d. Has the founder population of the species bred in zoo, indicate numbers bred in the zoo? e. Have the animals been conditioned for reintroduction in the wild? f. Has there been sufficient technical inputs from the species experts? Please elaborate the responsibility of conservation breeding of the identified critically endangered species to identified zoos having technical capabilities and housing facilities, preferably close to the distribution range of the species and every zoo shall help the identified zoos in implementing the breeding programme. Please indicate specific cases for the zoo.	No NA NA NA NA NA	
9.7	Has the zoo spared surplus animals from the breeding population to the participating zoos for display purposes on the basis of quality of housing and infrastructural facilities available with the concerned zoos?	No	
9.8	With a view to prevent inbreeding and the loss of heterozygosity is the zoo maintaining the animal history cards & stud and herd book for the animals	No	



	of endangered species housed in the zoo and putting appropriate identification marks for transfer or exchange animals with other zoos?		
9.9	a. Is the zoo limiting the number of animals of each species within the limits set by the animal collection plan of the zoo by implementing appropriate population control measures like segregation of sexes, vasectomy, tubectomy and implantation of pellets etc., with due consideration of the health and welfare of the animals and interest of their long term survival? Please indicate species wise numbers over the last three years.	This is a new zoo and all animals were acquired recently except spotted deer.	
	b. What methods of population control were employed and comparative success?	Isolation for spotted deer.	
9.10	Has the zoo implemented disaster management plan, training and mock drills to prevent accidents in zoo in accordance with master plan?	It has been incorporated in master plan.	
	Indicate action taken for safeguard against any accident/ escape of the zoo animals from the premises of the zoo and in the event of any accidental escape, immediate action was taken to retrieve the escaped animals?	-	
9.11	Has the zoo released any surplus captive animal into the wild except in accordance with the norms specified by the Central Zoo Authority in this regard? Annex details	No	
9.12	Is the hybridization of species or races of same species taking place in the zoo? Which species?	No	
<b>10. Research Activities</b>			
10.1	a. Has the zoo implemented a research plan as indicated in the Master Plan and conducted research on the prioritized species and specific areas of concern?	No	
	b. Has the zoo accessed grants form CZA or other institutions/agencies for the Research Project. Indicate details and outcomes?	No	
	c. Is the zoo carrying out collaborative research for evolving innovative strategies for providing the animals housed in the zoo a better quality of life, enhanced longevity, higher genetic and behavioural viability and improved reproduction potential and to achieve the said goal.(Every zoo, other than mini zoos, shall make arrangements for meticulous recording of data on the social behaviour, group dynamics and reproductive biology of the species housed in the zoo and developing a data base to be shared with other zoos and the identified institutions, in accordance with norms specified by the Central Zoo Authority in this regard)	No	
	d. Research paper/ technical reports published. Details of its implementation.	No	
<b>11. Education and Outreach Activities</b>			
11.1	a. Has the zoo made efforts to educate the visitors to the zoo and the people at large about the significance of wildlife conservation for the general well-being of the people and keeping the life support system of nature intact and to make people aware about the role played by the zoos in this regard and the ways and means through which general public can participate and contribute for the same?	Yes, many school, college students are visiting the zoo. Researchers from WII also visiting the zoo as a part of study tour. Different state forest department staffs also visiting the zoo as a part of their study tour.	

	b. Whether the zoo has appropriate signage and interpretation facilities, Souvenir Shop, Library Facility accessible, dedicated Website and carrying out the Outreach and awareness, Guided Tour, celebrations of various events	Yes, details already given in compliance report.	
11.2	Is physical handling or performances by animals permitted as part of educational activity?	No	
<b>12. Visitor Facilities</b>			
12.1	Is the zoo providing adequate civic facilities for visitors at appropriate and convenient places in the zoo including physically disadvantaged persons and such facilities are so located that they do not mask or impact the view of enclosures?		
	a. Drinking Water	Yes, at 3 places	
	b. Urinals	Yes, at 4 places	
	c. Ramps	Yes, at all places	
	d. Wheel chairs	Yes, at entry gate	
	e. Battery Operated vehicles	No	
	f. Lawns	Yes	
	g. Visitor shed	Yes, at 3 places	
	h. Kiosks	No	
	i. rain shelters	Yes, at 3 places	
	j. cloak rooms for the visitors	Yes, at entry gate	
	k. zoo visitor guides	No	
	l. Public Announcement systems, fire alarm during emergency.	Yes	
12.2	Does the zoo have first aid facilities including snake anti-venom and life saving drugs, readily available in the zoo premises?	Yes, at entry gate and office	
12.3	Is the zoo making arrangements for providing access to the physically challenged persons for viewing wild animals at various animal enclosures?	Yes, details already given in compliance report.	

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

### A. Mammals

S. No.	SPECIES NAME	COMMON NAME	SCIENTIFIC NAME	Numbers
1		Deer Spotted (Chital)	Axis axis	51
<b>Total</b>				<b>51</b>

### B. Birds

During the great backyard bird counting celebration held in the Dehradun zoo premises about 41 species of birds cited and identified. The details are as follows.

S.No	COMMON NAME	SCIENTIFIC NAME
1.	Himalayan Griffon	<i>Gyps himalayensis</i>
2.	Black Kite	<i>Milvus migrans</i>
3.	Red-wattled Lapwing	<i>Vanellus indicus</i>
4.	Rock Pigeon	<i>Feral Pigeon/ Columbia livia Feral</i>

		<i>Pigeon</i>
5.	Himalayan Swiftlet	<i>Aerodramus Brevirostris</i>
6.	Alpine Swift	<i>Tachymarptis melba/Apus Melba</i>
7.	Little Swift	<i>Apus affinis/Indian House Swift</i>
8.	Indian Grey Hornbill	<i>Ocyrceros Birostris</i>
9.	Oriental Pied-Hornbill	<i>Anthracoceros Albirostris</i>
10.	Lineated Barbet	<i>Psilopogon Lineatus</i>
11.	Brown-headed Barbet	<i>Psilopogon Zeylanicus</i>
12.	Grey-capped Woodpecke	<i>Picoides Canicapillus</i>
13.	Lesser Yellownappe	<i>Picuschlorolophus</i>
14.	Grey Head woodpecker	<i>Picuscanus</i>
15.	Long Tailed minivet	<i>Pericrocotus Ethologus</i>
16.	Large-billed Crow	<i>Corvus Macrorhynchos</i>
17.	Dusky Crag Martin	<i>Ptyono Progne Concolor</i>
18.	Red-rumped Swallow	<i>Cecropis Daurica</i>
19.	Yellow-bellied Fantail	<i>Chelidorhynx Hypoxanthus</i>
20.	Grey headed Canary-Flycatcher	<i>Culicicapa Ceylonensis</i>
21.	Cinereous Tit	<i>Parus Cinereus</i>
22.	Chestnut-bellied Nuthatch	<i>Sitta Cinnamoventris</i>
23.	Bar-tailed Treecreeper	<i>Certhia Himalayana</i>
24.	Red-vented Bulbul	<i>Pycnonotus Cafer</i>
25.	Himalayan Bulbul	<i>Pycnonotus Leucogenys, or white-cheeked bulbul</i>
26.	Himalayan Black Bulbul	<i>Hypsipetes Leucocephalus</i>
27.	Pale-rumped Warbler	<i>Phylloscopus Chloronotus or lemon-rumped warbler</i>
28.	Hume's Warbler	<i>Phylloscopus Humei</i>
29.	Grey-hooded warbler	<i>Phylloscopus Anthoschistos</i>
30.	Whistler's Warbler	<i>Phylloscopus Whistleri</i>
31.	Common Tailorbird	<i>Orthotomus Sutorius</i>

32.	Grey-breasted Prinia	<i>Prinia Hodgsonii or Franklin's prinia</i>
33.	Oriental White-eye	<i>Zosterops Palpebrosus</i>
34.	Rusty-cheeked Scimitar-Babbler	<i>Pomatorhinus Erythrogeus</i>
35.	Jungle Babbler	<i>Argya Striata</i>
36.	Blue Whistling-Thrush	<i>Myophonus Caeruleus</i>
37.	Rufous-gorgeted Flycatcher	<i>Ficedula Strophinata</i>
38.	Red-breasted Flycatcher	<i>Ficedula Parva</i>
39.	Grey Bush chat	<i>Saxicola Ferreus</i>
40.	Common Myna	<i>Acridotheres Tristis</i>
41.	Grey Wagtail	<i>Motacilla Cinerea</i>
42.		

### C. Reptiles

S.No.	SPECIES NAME	COMMON NAME	SCIENTIFIC NAME	Numbers
1.	<b>Reptiles</b>	Cobra	<i>Najanaja</i>	These species are commonly found in the zoo premises however, exact number uncertain
2.		Rat Snake	<i>Zamenis Longissimus</i>	
3.		Russel viper	<i>Daboia Russelii</i>	
4.		Monitor lizard	<i>Varanusspe</i>	
5.		Python	<i>Python bivittatus</i>	
6.		Common trinket	<i>Coelognathus helena</i>	
7.		Himalayan trinket	<i>Orthriophis Hodgsoni</i>	

  
**(Nitish Mani Tripathi)**  
**Director,**  
**Dehradun Zoo**