

Padmaja Naidu Himalayan Zoological Park, Darjeeling, West Bengal

Annual Report for the year
2017-18



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1. Report of the Officer-in-charge

The great majority of modern zoos focus heavily on conservation work and education. Padmaja Naidu Himalayan Zoological Park has developed an international reputation for its conservation work, in particular its breeding for release programmes for endangered and threatened native species. Padmaja Naidu Himalayan Zoological Park also has a strong commitment to its community education programme about conservation, environmental management, and the need to ensure biodiversity.

The activities of the Park during this annual got hampered during the ongoing Political unrest from June to September 2017. The visitors footfall remained confined to only about 4,34,111. Many of the regular activities of the park like animal exchange and educational programmes got affected.

Post June after the normal functioning of the office resumed, the newly constructed veterinary hospital was made functional and the old existing hospital wing was handed over to the Research and Education section of the park.

Births of endangered species like the Red panda (*Ailurus fulgens fulgens*), Temminck's Tragopan (*Tragopan temmincki*), other high altitude species were witnessed. Educational programmes resumed with the park entertaining 1,236 students from various school/colleges/universities/ training institutes imparting lectures and involving them in various activities concerning wildlife and its importance and the role that zoos have undertaken for their conservation.

Capacity building of the staffs was one of the major activities that the park got involved into, the veterinary officer of the park Dr Uttam Mani Pradhan was trained by the Central Zoo Authority in collaboration with the Smithsonian, U.S.A in New Delhi in the area of the of Animal health management and Veterinary wildlife medicine, similarly the Zoo Biologist including the zoo keepers were sent for capacity building. During my tenure as a Director i attended a workshop for preparing a visionary document for the zoo management in future at Mysore.

2. History of the Zoo

The Padmaja Naidu Himalayan Zoological Park Darjeeling formerly known as Himalayan Zoological Park, Darjeeling was established on 14th August, 1958. In 1975 Late Smt. Indira Gandhi, then the Prime Minister of India, dedicated the Himalayan Zoological Park in memory of Late Smt. Padmaja Naidu, Ex-Governor of West Bengal and the Park was renamed Padmaja Naidu Himalayan Zoological Park. The land on which the Zoological Park is standing was acquired by the British Govt. in the late 19th Century and developed as a Public Park known as Birch Hill Park. After Independence the Govt. of India and the Govt. of West Bengal decided to develop the Birch Hill Park as Zoological Park for Conservation of Eastern Himalayan ecosystem.

3. Vision

Conservation Breeding and Conservation Education.

4. Mission

Assisting the National efforts for conservation of the Eastern Himalayan Ecosystem by ex-situ conservation breeding of its endangered fauna, conservation education and research to augment these conservation initiatives.

5. Objective

The Zoological Park is striving for the maintenance of ecological balance in the Eastern Himalayas with the following objectives:

- 1) Ex-situ Conservation & Captive breeding of endangered Himalayan animal species.
- 2) Educating, motivating and initiating awareness campaign among the local people as well as the visitors on the importance of conservation of Himalayan eco-system.
- 3) Initiating applied research on animal biology, behaviour and health care.

6. About us

S.No.	Particulars	Information
Basic Information about the Zoo		
1	Name of the Zoo	Padmaja Naidu Himalayan Zoological Park.
2	Year of Establishment	14 th August, 1958
3	Address of the Zoo	Padmaja Naidu Himalayan Zoological Park, Jawhar Parbat (West), Dist Darjeeling, 734101
4	State	West Bengal.
5	Telephone Number	0354-2253709/2254250
6	Fax Number	0354-2252522
7	E-mail address	pnhzp@yahoo.com
8	Website	www.pnhzp.gov.in
9	Distance from nearest	Airport: Bagdogra` International Airport: 67 kms
		Railway Station:New Jalpaiguri Railway Station: 73.8 Kms
		Bus Stand: Tenzing Norgay Bus Stand: 64.1 kms
11	Category of zoo	Medium
12	Area (in Hectares)	Main Zoo including old breeding Centre - -27.341 hectares.
		Conservation Breeding Centre for Herbivores and Pheasants, Dow Hill,

S.No.	Particulars	Information
		Kurseong- 4.65 hectares Conservation Breeding Centre for Red Panda and Snow leopard, Topkedara, 3 rd Mile - 5 hectares
13	Number of Visitors (Financial Year)	Adult : - Children : - Total Indian : 4,25,394 Total Foreigners : 8717 Total Visitors: 4,34,111
14	Visitors' Facilities Available in Zoo	i. Rain Shelter ii. Restingbenches iii. Wheel Chairs iv. Kikos v. Drinking water vi. Toilets vii. Child care room
15	Weekly Closure Day of the Zoo	Thursday
Management Personnel of the zoo		
16	Name with designation of the Officer in-charge	Shri. Piar Chand IFS, Director
	Name of the Veterinary Officer	Dr. Uttam Mani Pradhan
	Name of the Curator	Shri Purna Ghishing
	Name of the Biologist	Ms. Upashna Rai
	Name of the Education Officer	Ms. Pranita Gupta

S.No.	Particulars	Information
	Name of the Compounder/ Lab Assistant	Compounder: Shri Pradip Singh/Lab Assistant: Shri. Vikash Chettri
Owner / Operator of the Zoo		
17	*Name of the Operator	i. Department of Forest, Govt. of West Bengal. ii. West Bengal Zoo Authority.
18	Address of the Operator	Aranya Bhavan , Block-LA, 10-A, Sector-III, Salt Lake, Kolkata-700106
19	Contact details/Phone number of Operator	. Department of Forest, Govt. of West Bengal: 033 2335 7751 West Bengal Zoo Authority:033-23355010
20	E-mail address of Operator	Department of Forest, Govt. of West Bengal: micforest@wb.gov.in West Bengal Zoo Authority: mswbza@gmail.com

* Rule 2(m) of the Recognition of Zoo Rules, 2009.

“Zoo Operator” means the person who has ultimate control over the affairs of the zoos provided that _____

I. in the case of a firm or other association of individuals, any one of the individual partners or members thereof; or

II. in the case of a company, any director, manager, secretary or other officer, who is in-charge of and responsible to the company for the affairs of the zoo; or

III. In case of zoo owned or controlled by the Central Government or any State Government or Union Territory Administration or any Trust or Society funded by the Central Government or a State Government or a Union Territory Administration, the Secretary of the concerned Department of that Government, or as the case may be the Union Territory Administration, shall be deemed to be the Zoo Operator.

7. Organizational Chart

(copy attached)

8. Human Resources

Manpower of the Zoo*

Sl.No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Director	1	Mr Piar Chand
2.	Asst. Director	1	-
3	Veterinary Officer	1	Dr Uttam Mani Pradhan
4	Zoo Biologist	1	Mrs Upashna Rai
5	Zoo Supervisor	2	Mr Purna Ghissing
6	Museum Supervisor	1	-
7	Estate / Security Supervisor	1	Mr Shiromani Syangden
8	Research Assistant	1	Miss Rohini Chettri
9	Education Assistant	1	Miss Pranita Gupta
10	Library Assistant	1	-
11	Taxidermist	1	Mr Sairus Bhaktaraj
12	Laboratory Assistant	1	Mr Vikash Chettri
13	Veterinary Assistant	2	

14	Asst. Zoo Supervisor	2	Mr Deepak Roka
15	Asst. Estate / Security Supervisor	2	Mr Siddharth Chettri
16	Gate Keeper	2	i. Mr Krishna Roy ii. Mr Ashok Chettri
17	Driver	2	Mr. Elvin Lepcha
18	Zoo Keeper	16	i. Mr Subash Sharma ii. Mr Nipan Tamang iii. Mr Ruden Lepcha iv. Mr Amar Chettri v. Mr Binod Kumar Subba vi. Mr Bidhan Tamang vii. Mr Sachin Sunam viii. Mr Nima Tamang ix. Mr Krishan Rai x. Mr Sanil Rai xi. Mr Mahesh Gurung xii. Mr Pranay Thapa xiii. Mr Pawan Subba xiv. Mr Anil Das.
19	Cook	1	Mr Samson Tamang
20.	Head Clerk	1	-
21	Accountant	1	Mrs Karunal Niroula
22	PA to Director	1	Mrs Mamta Subba
23	Store keeper	1	Mr Ashim Gurung
24	UDC/OA/TA	2	Mrs Sangita Lama

25	LDC	4	Mr Gopal Pradhan, Mrs Ranju Gurung.
26	Ticket Clerk	2	Mr Mir Tshering Tamang
27	Support staff		
	a) Security	30	-
	b) Sanitation	10	Mr Chandra Pal Balmiki Mrs Chnda Devi Balmiki
	c) Garden	10	Mr Bharat Rasaily Mr Maiti Chettri Miss Aariti Rai
	d) Attendant	14	Mr Dawa Sherpa Mr Nawang Sherpa Miss Chumki
	e) Animal Attendant	16	

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	Dr Uttam Mani Pradhan. Veterinary officer.	Capacity building of Indian Zoo Veterinarians on animal health management in captivity.	16.09.2017- 19.09.2017	National Zoological Park, New Delhi.
2	Miss Upashna Rai, Zoo Biologist.	Wildlife middle level zoo Officials Training Programme	11.12.2017- 14.12.2017	Sanjay Gandhi Biological Park. Patna, Bihar.
3	Mr Piar Chand I.F.S. Zoo Director	Vision 2030 of the zoos in India	18.12.2017- 21.12.2017	Sri Chamarajendra Zoological Gardens, Mysuru.
4	Miss Upashna Rai, Zoo Biologist.	Interactive session on Zoological Information Management System (ZIMS) & data entry in the software-reg.	12.02.2018- 13.02.2018	Sanjay Gandhi Biological Park. Patna, Bihar.
5	Mr Binod Subba Zoo Keeper	Zoo Keeper's training programme.	20.03.2018- 25.03.2018	Nandankanan Zoological Park, Odisha.

- 10. Zoo Advisory Committee –**
 - a. Date of constitution**
 - b. Members**
 - c. Dates on which Meetings held during the year**

- 11. Health Advisory Committee–**
 - a. Date of constitution**
 - b. Members**
 - c. Dates on which Meetings held during the year**

Note: The Park do not have any of the two Committees mentioned above, however the Park is governed by the West Bengal Zoo Authority, Govt. of West Bengal.

12. Statement of income and expenditure of the Zoo

Sl. No	Year (2017-18)	Source of fund	Receipt in Rupees		Expenditure in Rupees	
			Non-Plan	Plan	Non-Plan	Plan
1	As grant in aids	Deptt. Of Forest, Govt. of West Bengal	8,93,75,000.00		8,93,75,000.00	
2	As grants under Non-plan	Zoo Authority of West Bengal	5,90,00,000.00		5,90,00,000.00	
3	As grants under state Plan/Annual Plan	Zoo Authority of West Bengal		28,90,636.00		28,90,636.00
4	Gate Fee Collection:					
	a) Zoo Ticket		1,49,06,645.00		12,76,080.00	
	b) Zoo Camera		2,76,080.00		2,76,080.00	
	c) Animal Adoption		61,00.00		61,00.00	
	d) Guest House		7,400.00		7,400.00	
	e) Souvenir Shop		47,377.00		47,377.00	
	f) Fee from rental store		1,52,560		1,52,560	
	Total Budget		Rs Non Plan+ Plan= 16,38,26,062+28,90,636= 16,67,16,698.			

13. Daily feed Schedule of animals

Sl. No	Species	Feed item	Quantity		Day of fasting
			Winter	Summer	
	Mammals				
1	Red Panda (<i>Ailurus fulgens</i>)	i. Egg ii. Banana iii. Apple iv. Honey v. Milk vi. Bamboo leaves	1 pc 2 pcs 500 gms 50 ml 500 ml 4 kgs	1 pc 2 pcs 500 gms 100 ml 500 ml 4kgs	No fasting day observed
2	Snow Leopard (<i>Uncia uncia</i>)	i. Beef ii. Chicken iii. Mutton	3kgs 3kgs 3kgs	3kgs 3kgs 3kgs	Thursdays
3	Himalayan Wolf (<i>Canis himalayensis</i>)	i. Beef ii. Chicken	1.5 kgs 1.5 kgs	1.5 kgs 1.5 kgs	Thursdays
4	Himalayan Tahr (<i>Hemitragus jemlachi</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric x. Pulses (Mung, Musur soaked)	500 gms 250 gms 500 gms 250 gms 20 gms 1 kgs 20 kgs 30 gms 350 gms	500 gms 250 gms 500 gms 250 gms 20 gms 1 kgs 20 kgs 800 gms 30 gms 350 gms	No fasting day observed
5.	Himalayan Goral (<i>Naemorhaedus goral</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric x. Pulses (Mung, Musur soaked)	500 gms 200 gms 500 gms 200 gms 20 gms 500 gms 15 kgs 30 gms 350 gms	500 gms 200 gms 500 gms 200 gms 20 gms 500 gms 15 kgs 800 gms 30 gms 350 gms	No fasting day observed
6.	Markhor (<i>Capra falconeri</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses	500 gms 250 gms 500 gms 500 gms 20 gms 500 gms 20 kgs 800 gms	500 gms 250 gms 500 gms 500 gms 20 gms 500 gms 20 kgs 800 gms	No fasting day observed

		ix. Turmeric x. Pulses (Mung, Musur soaked)	30 gms 350 gms	30 gms 350 gms	
7.	Barking Deer (<i>Muntiacus muntjac</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric x. Pulses (Mung, Musur soaked)	500 gms 200 gms 500 gms 250 gms 20 gms 500 gms 15 kgs 30 gms 300 gms	500 gms 200 gms 500 gms 250 gms 20 gms 500 gms 15 kgs 800 gms 30 gms 300 gms	No fasting day observed
8	Blue Sheep (<i>Pseudovis nayaur</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric x. Pulses (Mung, Musur soaked)	500 gms 200 gms 500 gms 250 gms 20 gms 500 gms 15 kgs 30 gms 350 gms	500 gms 200 gms 500 gms 250 gms 20 gms 500 gms 15 kgs 800 gms 30 gms 350 gms	No fasting day observed
9.	Sambar Deer (<i>Rusa unicolor</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric x. Pulses (Mung, Musur soaked)	500 gms 450 gms 500 gms 450 gms 20 gms 2 kgs 30 kgs 30 gms 350 gms	500 gms 450 gms 500 gms 450 gms 20 gms 2 kgs 30 kgs 800 gms 30 gms 350 gms	No fasting day observed
10.	Yak (<i>Bos grunniens</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Green fodder viii. Molasses ix. Turmeric	500 gms 450 gms 500 gms 450 gms 20 gms 2 kgs 30 kgs 30 gms	500 gms 450 gms 500 gms 450 gms 20 gms 2 kgs 30 kgs 800 gms 30 gms	

		x.	Pulses (Mung, Musur soaked)	350 gms	350 gms	
11.	Royal Bengal Tiger (<i>Panthera tigris</i>)		Beef	14 kgs	14 kgs	Thursdays
12.	Common Leopard (<i>Panther pardus</i>)	i. ii. iii.	Beef Chicken Mutton	3.5kgs 3.5kgs 3.5kgs	3.5kgs 3.5kgs 3.5kgs	
13.	Clouded Leopard (<i>Neofelis nebulosa</i>)	i. ii. iii.	Beef Chicken Mutton	2.5kgs 2.5kgs 2.5kgs	2.5kgs 2.5kgs 2.5kgs	Thursdays
14	Asiatic Black Bear (<i>Ursus thibetanus</i>)	i. ii. iii. iv. v. vi. vii. viii. ix. x. xi.	Wheat chappati Rice Soup (beef/ mutton/ chicken) Sattu balls Soaked, boiled and crushed chana Vegetables like cabbage, potato, tomato, cucumber, raddish, carrot, turnip, peas, pumpkin, squash, tubers(locally available), maize, celery, all forms of leafy vegetables Fruits like guava, apple (in less quantity), sugarcane, grapes, whole watermelon, lemon (locally available) . Honey Milk Molasses Boiled eggs	7 pcs 250 gms 1 lts 2 pcs 250 gms 1 kg 500-600 gms 250 ml 500 ml 250 gms 2pcs	7 pcs 250 gms 1 lts 2 pcs 250 gms 1kg 500-600 gms 250 ml 500 ml 300 gms 2pcs	
15	Jackal (<i>Canis aures</i>)	i. ii.	Beef Chicken	1 kg 1kg	1 kg 1kg	Thursdays

16	Leopard Cat(<i>Prionailurus bengalensis</i>)	i. Mutton ii. Beef iii. Chicken	500 gms 500 gms 800 gms	500 gms 500 gms 800 gms	Thursdays
17	Himalayan Palm Civet(<i>Pagumalarvata</i>)	i. Banana ii. Apple iii. Cardomom iv. Mutton with mutton heart	200-400 gms 200-400 gms 50 gms 150 gms	200-400 gms 200-400 gms 50 gms 150gms	Thursdays
18	Asian Palm Civet(<i>Prionailurus hermaphrodites</i>)	i. Banana ii. Apple iii. Beef iv. Mutton	200-400 gms 200-400 gms 150 gms 150 gms	200-400 gms 200-400 gms 150 gms 150gms	Thursdays
19	Common Grey langur(<i>Semnopithecus entellus</i>)	i. Groundnuts ii. Potato/tubers ii. Green leafy vegetables, bamboo, fodder leaves. iv. Boiled eggs v. Apple	200gms 100 gms 300 gms 1pc 200-300 gms	200 gms 100gms 300 gms 1pc 200-300 gms	No fasting
20	Slow loris(<i>Nycticebus bengalensis</i>)	i. Egg ii. Banana with other seasonal fruits iii. Mutton	1pc 70 gms 50 gms	1pc 70 gms 50 gms	No fasting
21	Jungle cat(<i>Felis chaus</i>)	i. Mutton ii. Beef iii. Chicken	750 gms 750 gms 750 gms	750 gms 750 gms 750 gms	Thursdays
22	Pheasants Total species				
	Himalayan Monal(<i>Lophophorus impejanus</i>), Cheer Pheasant(<i>Catreus wallichii</i>), Temminck's Tragopan(<i>Tragopan</i>)	i. Crushed maize ii. Onion iii. Green & leafy vegetables (lettuce, cabbage, leaves of raddish, carrots, citrus fruits, turnip, palak, raya, simraya, raddish and carrot	50 gms 10 gms 100 gms	50 gms 10 gms 100 gms	No fasting

	<i>temminicki</i>), Grey Peacock Pheasant(<i>Poly pectron bicalcaratum</i>), Red Jungle Fowl(<i>Gallus gallus</i>), Kaleej Pheasant(<i>Loph ura leucomelana</i>), Golden Pheasant(<i>Chry solophus pictus</i>), Reeves Pheasant(<i>Sym aticus reevesii</i>), Silver Pheasant(<i>Loph ura nycthemea</i>) and Lady Amhrest(<i>Chrys olophus amherstia</i>).	leaves kumra etc. iv. Marble chips v. Mutton heart vi. Wheat & paddy husk vii. Boiled egg with shell viii. Sattu Balls ix. Eggs	10 gms 20 gms 50 gms 1 pc 20 gms 1 pc	10 gms 20 gms 50 gms 1pc 20 gms 1 pc	
23	Exotic Birds				
	Red and Blue Macaw(<i>Ares chloropterus</i>), Blue and Gold Macaw(<i>Ares chloropterus</i>), Bare Eyed Cockatoo(<i>Caco tua sanguine</i>), Sulphur Crested Cockatoo(<i>Caco tua sulphurea</i>), African Grey parrot(<i>Paittacus erithacus</i>), Cocktaiels(<i>Nym phicus hollandicus</i>), Rose Breasted cockatoo (<i>Elophus roseicapilla</i>) and	i. Groundnuts, soaked gram/pulses ii. Tomato (Solid) iii. Green Chilly (Solid) iv. Crushed Maize v. Green & leafy vegetables (seasonally available) vi. Marble chips	25 gms 25 gms 50 gms 50 gms 50 gms 10 gms	25 gms 25 gms 50 gms 50 gms 50 gms 10 gms	No fasting

	Turaco(<i>Tauraco</i>)				
	Reptiles				
24	Indian Rock Python(<i>Python molurus</i>), Indian Sand Boa(<i>Erynx johnii</i>), Rat Snake(<i>Ptyas mucosa</i>) and Russell's Viper(<i>Daboia russelii</i>)	i. 1 day old chick after every 10 days ii. White mice after every 10 days	2 chicks 2 mice	2 chicks 2 mice	No fasting
	Checked Keelback(<i>Xenochroptis piscator</i>)	Fish after every 3-4 days	250gms	250gms	No fasting
	Elongated Tortoise (<i>Indotestudo elongate</i>)	i. Apple ii. Banana	100 gms 100 gms	100 gms 100 gms	No fasting
	Bengal Monitor Lizard (<i>Varanus bengalensis</i>)	i. Chicken ii. Fish	500 gms 500 gms	500 gms 500 gms	No fasting

14. Vaccination Schedule of animals

Sl. No	Species	Disease vaccinated for	Name of the Vaccine and dosage/ quantity used	Periodicity	Remarks
1	a) Himalayan Wolf (<i>Canis himalayensis</i>) b) Jackal (<i>Canis aures</i>)	1) Dhippl a) Canine distemper b) Adenovirus c) Parvovirus d) Parainfluenza e) Heptatis f) Leptospirosis 2. Rabies	1. Megavac 7 1ml s/c 2. Rakshareb 1ml s/c	Annual Annual	
2.	a) Snow Leopard (<i>Uncia uncia</i>) b) Royal Bengal Tiger (<i>Panthera tigris tigris</i>) c) Common Leopard (<i>Panther pardus</i>) d) Jungle Cat (<i>Felis chaus</i>) e) Leopard Cat (<i>Prionailurus bengalensis</i>) f) Clouded Leopard (<i>Neofelis nebulosa</i>)	1) Feline a. Panleucopenia b. Calcivirus c. Hepes virus d. Rabies	1 Biofel PCHE 1ml s/c or I/M	Annual	

15. De-worming Schedule of animals

Sl.No.	Species	Drug used	Month
	Herbivores a) Markhor (<i>Capra falconeri</i>) b) Himalayan Tahr (<i>Hemitragus jemlachi</i>) c) Blue Sheep (<i>Pseudois nayaur</i>) d) Sambar Deer (<i>Rusa unicolor</i>) e) Yak (<i>Bos grunniens</i>) f) Barking Deer (<i>Muntiacus muntjac</i>) g) Himalayan Goral (<i>Naemorhaedus goral</i>)	I. Albendazole II. Fenbendazole III. Oxfendazole IV. Praziquantel V. Pyrantel pamoate (Used alternatively)	Quarterly. Deworming repeated if found positive in stool examination.
	Canines a) Jackal b) Himalayan wolf		
	Felines a) Snow leopard b) Royal Bengal Tiger c) Common leopard d) Jungle cat e) Clouded leopard f) Leopard cat		
	a) Red Panda		
	a) Asiatic Black Bear b) Pheasants & Birds c) Slow Loris		

16. Disinfection Schedule

Sl.No.	Species	Type of enclosure	Disinfectant used and method	Frequency of disinfection
1	All species	open	a) Formalin b) Sodium hypochlorate 2% c) Khorsolin 10 ml X 1 litre. d) Cetradine 10 ml X 1 litre	After every fortnight
2	All species	Night Shelters	a) a) Khorsolin 10 ml X 1 litre. b) Cetradine 10 ml X 1 litre c) Potassium permanganate d) Savlon e) Flame disinfection using LPG.	Daily Used alternately with Khorsolin Daily Daily

17. Health Check-up of employees for zoonotic diseases

Sl.No	Name	Designation	Date of Health Check up	Findings of Health Check up
1	Mr. Subash Sharma	Zoo keeper	14.06.2018	No major ailments observed
2	Mr. Nipon Tamang	Zoo Keeper	14.06.2018	No major ailments observed
3	Mr. Pradip Singh	Veterinary Compounder	14.06.2018	No major ailments observed
4	Mr. Ruden Lepcha	Veterinary Zoo keeper	14.06.2018	No major ailments observed
5	Mr. Deepak Roka	Asst. Animal Supervisor	14.06.2018	No major ailments observed
6.	Mr. Purna Ghishing	Animal Supervisor	14.06.2018	No major ailments observed

Sl.No	Name	Designation	Date of Health Check up	Findings of Health Check up
7	Mrs. Anju Sarwar	Office Peon	14.06.2018	No major ailments observed
8	Mrs. Ranju Gurung	LDC	14.06.2018	No major ailments observed
9	Mr. Gulshan Gurung	Estate Labourer	14.06.2018	No major ailments observed
10	Mrs. Mamta Subba	P.A. to Director	14.06.2018	No major ailments observed
18.	Mr. Vikash Chettri	Veterinary Laboratory Assistant	14.06.2018	No major ailments observed
19.	Dr. Uttam Mani Pradhan	A.D.V.O	14.06.2018	No major ailments observed
20.	Mr. Krishna Roy	Guard	14.06.2018	No major ailments observed
21.	Mr. Chandan Tamang	Peon	14.06.2018	No major ailments observed
22.	Mr. Suresh Reshmi	Taxidermist	14.06.2018	No major ailments observed
23.	Mrs. Chanda Devi Balmiki	Sweeper	14.06.2018	No major ailments observed
24.	Mr. Chandra Pal Balmiki	Sweeper	14.06.2018	No major ailments observed
25.	Mr. Dawa Sherpa	D.L.	14.06.2018	No major ailments observed
26.	Mr. Amar Chettri	Zoo Keeper	14.06.2018	No major ailments observed
27.	Mr. Preetika Lakhandri	Asst. Accountant	14.06.2018	No major ailments observed
28.	Ms. Sabita Sunwar	Office peon	14.06.2018	No major ailments observed

Sl.No	Name	Designation	Date of Health Check up	Findings of Health Check up
29.	Mr. Dipen Gurung	Zoo Keeper	14.06.2018	No major ailments observed
30.	Mr. Rakesh Sundas	Zoo Keeper	14.06.2018	No major ailments observed
31.	Mr. Binod Kumar Subba	Zoo Keeper	14.06.2018	No major ailments observed
32.	Mr. Sushant Chettri	Zoo Keeper	14.06.2018	No major ailments observed
33.	Mr. Sachin Sunam	Zoo Keeper	14.06.2018	No major ailments observed
34.	Mr. Sujit Rai	Zoo Keeper	14.06.2018	No major ailments observed
35.	Mr. Sohit Pahari	Zoo Keeper	14.06.2018	No major ailments observed
36.	Mr. Lakpha Tamang	Zoo Keeper	14.06.2018	No major ailments observed
37.	Mr. Arjun Tamang	Zoo Keeper	14.06.2018	No major ailments observed
38.	Mr. Rinchen Tamang	Zoo Keeper	14.06.2018	No major ailments observed
39.	Mr. Nima Tamang	Zoo Keeper	14.06.2018	No major ailments observed
40.	Mr. Nawang Sherpa	DL	14.06.2018	No major ailments observed
41.	Mr. Bikash Tamang	DL	14.06.2018	No major ailments observed
42.	Mr. Bharat Rasaily	Mali	14.06.2018	No major ailments observed
43.	Mr. Kushal Chettri	Estate labourer	14.06.2018	No major ailments observed
44.	Mr. Amit Pradhan	Office Staff	14.06.2018	No major

				ailments observed
45.	Mr. Dhiraj Thapa	Guard	14.06.2018	No major ailments observed
46.	Mr. C.K. Chettri	Guard	14.06.2018	No major ailments observed
47.	Mr. Jiten Tamang	Guard	14.06.2018	No major ailments observed
48.	Mr. Ram Thami	Guard	14.06.2018	No major ailments observed
49.	Mr. Simon Gurung	Veterinary Compounder	14.06.2018	No major ailments observed

18. Development Works carried out in the zoo during the year

1. Construction of chick rearing house near indigenous Pheasantry.
2. Construction of Ladies toilet.
3. Construction of Gents toilet.
4. Construction of boundary walls along the Lebong cart road below staff quarters.

19. Education and Awareness programmes during the year

The outreach programme of the Park involves students of all levels including trainees. The programme includes a tour of the park followed by an interactive session where topics such as role and functions of the modern zoo, conservation breeding programmes, environmental issues and the work of the zoo in working towards conserving rare and endangered species are discussed. Educational material regarding information on the housed animals of the park, conservation breeding programmes of the zoo, its biodiversity etc. are distributed to the students along with notebooks and lunches.

During the year 2017-2018 the education wing of the Park attended to 1663 students and 238 faculties from 47 institutes.

Date	Name of school/ Training institute/ Colleges/ Universities	Number of students/ trainees	Number of teachers/ instructors	Education incentives
07.04.2017	Faculty of Agricultural, Banaras Hindu University, Varanasi	50	04	Education Materials, Packet lunch. Visit to Zoo and Interaction.
08.04.2017	College of horticulture, Kerala Agricultural University	58	04	Education material, Packet Lunch. Visit to Zoo and Interaction.
15.04.2017	Grace Academy English School, Garidhura	52	12	Education material, Packet lunch, Visit to Zoo and Interaction.
19.04.2017	St. Michaels Higher Secondary School	94	06	Education material, Visit to Zoo and Interaction.
25.04.2017	DF/Fr Training, Rajabhatkhawa	24	01	Education material, Packet lunch. Visit to Zoo and Interaction.
05.05.2017	A.G. School	41	02	Education material, Visit to Zoo and Interaction.
06.05.2017	Rotary Club (Dr. Grahams's Homes, St Augustine School, Vrindavan School)	37	03	Education material, Packet lunch. Visit to Zoo and Interaction.
07.05.2017	Karnataka Forest Academy	46	04	Education material, Visit to Zoo and Interaction.

10.05.2017	SantNirankari Mission	31	15	Education material, Packet lunch. Visit to Zoo and Interaction.
12.05.2017	Good Start Montessori School	36	05	Education material, Visit to Zoo and Interaction.
20.05.2017	Darjeeling Montessori High School	92	13	Education material, Visit to Zoo and Interaction
26.05.2017	Kalijhora Primary School	09	06	Education material, Visit to Zoo and Interaction
23.10.2017	H.M.I Advance course Trainees	61	9	Education Materials, Visit to Zoo Interaction.
23.10.2017	H.M.I Basic course Trainees	65	1	Education Materials, Visit Zoo and Interaction.
28.10.2017	Himalayan Run and Trek	55	6	Education Material and Visit to Zoo.
09.11.2017	Zoological gardens, Trivandrum	11	1	Education Materials, Visit to Zoo Interaction.
13.11.2017	Sarda Nepali girls Primary School	05	4	Education Materials, Visit to Interaction and Packet lunch
13.11.2017	Surrotam Vedic Paths	09	4	Education Materials, Visit to Interaction and Packet lunch.
13.11.2017	R.N Sinha Primary School	27	0	Education Materials, Visit to Interaction and Packet lunch.
13.11.2017	Saipatri Primary	06	3	Education

	School			Materials, Visit to Interaction and Packet lunch
13.11.2017	Buddhist Primary School	20	3	Education Materials, Visit to Interaction and Packet lunch
13.11.2017	Holy Angels School	25	1	Education Materials, Visit to Interaction and Packet lunch
13.11.2017	Red Cross Primary School	18	4	Education Materials, Visit to Interaction and Packet lunch
14.11.2017	Pinewood School, Ghoom	63	9	Education Materials, Visit to Interaction and Packet lunch
18.11.2017	Ray of Hope School, Chong tong	20	9	Education Materials, Visit to Interaction and Packet lunch
18.11.2017	Child Rights Week in Association with District Child Protection Unit Darjeeling	40	7	Education Materials, Visit to Interaction and Packet lunch
19.11.2017	A.G Church (Sunday School), Darjeeling	42	7	Education Materials, Visit to Interaction and Packet lunch
24.11.2017	St. Xavier's School, Darjeeling	26	3	Education Materials, Visit Zoo and Interaction
25.11.2017	Relling Higher Secondary School	10	2	Education Materials, Visit Zoo and Interaction
28.11.2017	Anulia High School	22	8	Education Materials, Visit

				Zoo and Interaction
05.12.2017	Banbole High School, Uttar Dinajpur	40	4	Education Materials, Visit Zoo and Interaction.
08.12.2017	Crayons Preparatory School	38	9	Education Materials, Visit Zoo and Interaction.
11.12.2017	Mount View Primary School	26	7	Education Materials, Visit Zoo and Interaction.
22.12.2017	Kumdini High School, Kalimpong	21	1	Education Materials, Visit Zoo and Interaction.
23.12.2017	Saraswati Vidhya Daan Academy, Lebong.	51	15	Education Materials, Visit Zoo and Interaction.
23.12.2017	CASFOS, Burnihat, Assam	29	1	Education Materials, Visit Zoo and Interaction.
22.01.2018	St. Joseph School, Winter Camp	58	13	Education Materials, Pack lunch, Visit to Zoo and Interaction.
23.01.2018	CASFOC SFS Training	21	1	Education Materials, Visit to Zoo and Interaction. Packet lunch.
26.01.2018	Missionary of Charity	55	10	Education Materials, Pack lunch, Visit to Zoo and Interaction.
01.03.2018	RFO Training Batch CASFOS, Burnihat.	32	1	Education Materials, Visit to Zoo and Interaction.
02.03.2018	Telangana State Forest Academy, Dulapally, Hyderabad	63	1	Education Materials, Visit to Zoo and Interaction.
05.03.2018	World Wildlife Day	32	10	Education Materials, Pack lunch. Visit to Zoo and Interaction.
18.03.2018	Guide Training Course through skill	27	0	Education Materials. Visit

	development for unemployed youths of GTA.			Zoo and Interac
20.03.2018	RFO Trainees from Kundal Forest Academy	32	2	Education Materials. Visit Zoo and Interac
30.03.2018	Rockvale Academy, Kalimpong	55	5	Education Materials, Pack lunch. Visit to Z and Interaction.



Educational tour of students of College of horticulture, Kerala Agricultural University



Educational Tour of students of Grace Academy English School



Educational tour of students of St. Michaels Higher secondary School.





DF/Fr Training, Rajabhatkhawa



Educational tour of students of Assembly of God Church School



Educational tour of Good Start Montessori School. M



Educational tour of Students from the Rotary Club, Darjeeling



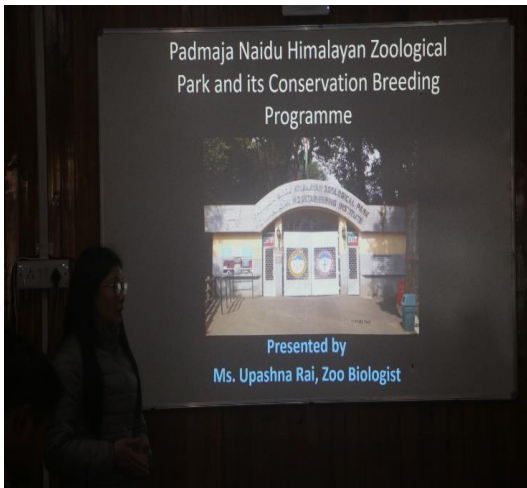
Karnataka Forest Academy



Educational tour of students of students of Sant Nirankari Mission



St. Joseph School, Winter Camp



CASFOS SFS Training



Missionaries of Charity



RFO Training, CASFOS, Burnihat



TSFA Training, Hyderabad



RFO Training, Kundal forest Academy



Educational tour of Rockvale Academy, Kalimpong

20. Important Events and happenings

1. INTERNATIONAL BIODIVERSITY DAY, 2017

Padmaja Naidu Himalayan Zoological Park organized International Day for Biodiversity on 22nd of May 2017. The theme for this year's Biodiversity day was "*Biodiversity and Sustainable Tourism*". The chief guest of the event was Shri V.K Yadav, IFS, Member Secretary, West Bengal Zoo Authority.

An extempore competition involving the students of different schools of Darjeeling was organized at the Bengal Natural History Museum auditorium by the zoo. Two students from either or class IX and X from twenty different schools were invited to participate in the competition. The program saw the participation of twenty students from ten different local schools. The participant school list is as follows.

S.No	Name of School	No of Participants
1.	St. Teresa's Higher Secondary School	2
2.	Municipal Boys Higher Secondary School	2
3.	R.K.S.P	2
4.	Nepali Girls Higher Secondary School	2
5.	Assembly of God Church School	2
6.	North Point School	2
7.	St. Pauls School	2
8.	West Point School	2
9.	Gyanoday Niketan	2
10.	Notre Dame Academy	2

The extempore completion was judged by Dr Uttam Mani Pradhan, Veterinary Officer, Padmaja Naidu Himalayan Zoological Park and Mr Saibal Sengupta, Assistant Teacher, St Roberts Higher Secondary School, Darjeeling.

The event commenced at 10 am with the registration of the participant students and teachers, followed by hi-tea and the extempore competition followed by the screening of a wild life movie along with the distribution of packet lunch to all the students and teachers. The programme ended with the announcement of the winners of the competition and prize distribution.

WORLD BIODIVERSITY DAY 2017 PROGRAMME

10:00 am: Students and teachers assemble in the hall

10:00 am- 10:30 am: Registration

10:30 am- 10:40 am: Welcome speech by Miss Upashna Rai, Zoo Biologist

10:40 am- 11:00 am: Address by Director, PNHZP and Chief Guest

11:00 am- 11:30 am: Hi- tea

11:30 am- 1:00 pm: Extempore competition

1:00 pm- 2:00 pm: lunch and Wildlife movie

2:00 pm- 2:30 pm: Remarks of the Judges

2:30 pm- 3:00 pm: Prize Distribution and Vote of Thanks.

For the extempore competition, the students were given topics relevant to the theme for this year's International Biodiversity day. The students were made to pick up a piece of paper with the topic using a lucky draw system. The students were given 20 minutes to prepare their topics and each student was given a maximum time of 10 minutes each to speak on their respective topics.

S. No	Topics
1.	Positive contribution of tourism to biodiversity awareness
2.	The human side of biodiversity and sustainable tourism
3.	Impact of tourism on biodiversity
4.	Principles of sustainable tourism
5.	Safe and sustainable food and its value
6.	Can biodiversity conservation action benefit the poor?
7.	Sustainable tourism in protected areas
8.	Role of stake holders towards sustainable tourism
9.	Tourism and Biodiversity achieving common goals towards sustainability
10.	Role of NGOs in Sustainable Tourism
11.	Linking tourism and biodiversity conservation
12.	Role of social media in biodiversity
13.	Is tourism significant in biodiversity hotspot countries?
14.	Tourism driven impact in natural world heritage
15.	Recommendations for local residents in tourism destinations
16.	Guidelines for tourism in park and protected areas.
17.	Take only photographs leave only footprints.
18.	Renewable energy in the tourism industry.
19.	Sustainable tourism in the Himalayan region.
20.	Role of local communities in maintaining biodiversity

The students were judged based on relevance to the topic, presentation of ideas, language, confidence and fluency. The winners list and their topics are as follows.

Winner	Name	School	Topic
1 st	Mr Mahin. E. Alam	North Point School	Principles of sustainable tourism
2 nd	Mr Sahil Roka	Ram Krishna Siksha Parishad	Role of NGOs in Sustainable Tourism
3 rd	Miss Sitoshna Chettri	Gyanoday Niketan	The human side of biodiversity and sustainable tourism

The 1st prize winner was given a cash prize of Rs 3000 along with a certificate, book and a trophy. The 2nd prize winner was given a cash prize of Rs 2000 along with a certificate and a trophy. The 3rd prize winner was given Rs 1000 along with a certificate. All the participants were given certificates and education materials from the zoo along with packet lunches and caps. The teachers and the judges too received mementos from the park.

The main purpose of organizing an extempore competition for senior students of various local schools was to open a dialogue in between students and also between students and authorities that contribute towards conservation efforts and to understand the students perception and knowledge about our biodiversity, the problems plaguing it along with ways to counter the loss of biodiversity through individual and collective efforts.









2. World Environment Day, 2017

Padmaja Naidu Himalayan Zoological Park, celebrated World Environment Day on 5th June 2017. This year's theme was “*Connecting People to Nature*”. The park organized a sit and draw competition to celebrate the event and to educate students about environmental issues and the importance of working towards conservation. The invitation to participate in the event was sent out to 20 schools who were requested to send two students each from either or class IV and V along with a teaching staff. A total of 11 schools accepted the invitation to compete in the event. 22 Students and 10 teachers of different schools of Darjeeling participated in the programme.

S.No	Name of School	Number of Participants
1.	St. Michaels Higher Secondary School	2
2.	St. Robert's Higher Secondary School	2
3.	Bloom Field High School	2
4.	Ram Krishna Siksha Parishad	2
5.	Sardeshwari Higher Secondary School	2
6.	Goodstart Montessori School	2
7.	Bethany School	2
8.	North Point School	2
9.	Birch Hill School	2
10.	West Point School	2

11.	Notre Dame Academy	2

The programme for the day included an educational tour of the park by Miss Pranita Gupta, Education Assistant, Miss Rohini Chettri, Research Assistant and Mr Sairus Bhaktaraj, Taxidermist where the students were not only given information about the zoo and the captive animals but were also educated about the various conservation efforts of the zoo and also their roles in preserving our environment. The programme list is as follows:

WORLD ENVIRONMENTAL DAY 2017 PROGRAMME

10:00 am: Students and teachers assemble in the hall

10:00 am- 10:15 am: Registration

10:15 am- 10:30 am: Welcome address

10:30- 11:00 am: Hi- tea

11:00 am- 12:00 am: Educational tour of the Park

12:00 pm- 12:15 pm: Juice break

12:15 pm- 1:15 pm: Drawing/ Painting competition

1:15 pm- 2:00 pm: Lunch and Wildlife movie

2:00 pm- 2:30 pm: Prize Distribution and Remarks of the Judges

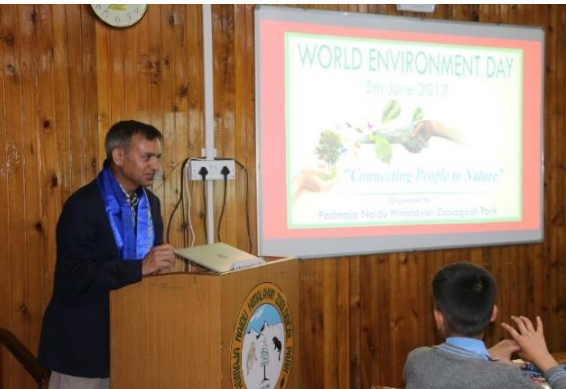
The theme for the sit and draw competition was “Connecting people with nature” and was judged by Dr Uttam Mani Pradhan, Veterinary officer, PNHZP and Miss Upashna Rai, Zoo Biologist, PNHZP. The participants were judged on the basis of relevance to the topic, their ideas and their ability to portray their ideas.

The winners list is as follows:

Prize	Name of Student	School
1 st	Master Avinave Shankar	Bethany School
2 nd	Master Saif Ali	Ram Krishna Siksha Parishad
3 rd	Miss Ridhima Rai	West Point School

The 1st, 2nd and the 3rd prize winners were given a cash prize of Rs 1000, Rs 800 and Rs 500 respectively along with a certificate, trophy and a book. All the participants were also given certificates, educational materials and caps. The teachers were also given mementos. All the attendees of the program were also given packet lunches and refreshments.

The main aim of organizing such a programme was to get children from primary division of local schools involved and educated regarding environmental issues and conservation measures and also to grasp their understanding on the particular subject and to broaden their knowledge.







3. OBSERVING CHILD RIGHTS WEEK IN ASSOCIATION WITH THE DISTRICT CHILD PROTECTION UNIT, DARJEELING.

The District Child Protection Unit organized various programs involving children to create awareness on Children Rights and Protection. The week long program from 14th November- 20th November, 2017 included an outreach program for the children and their escorts at Padmaja Naidu Himalayan Zoological Park on 18th November 2017.

The program included 50 children and their escorts from various parts of Darjeeling. The outreach program comprised of an educational tour of the park, a talk on conservation and information on various measures taken up by the park for care and conservation of its captive animals along with a quiz competition and screening of a wildlife movie. The participants were given refreshments and educational materials at the end of the program.





4.CELEBRATION OF CHILDREN’S DAY BY THE PARK AND IN ASSOCIATION WITH HAYDEN HALL, DARJEELING

The park celebrated Children’s day in association with Hayden Hall Community Development Centre, Darjeeling as well as host other schools on Children’s Day separately.

The park organized an outreach program for children from Municipality Primary Schools from Darjeeling in association with Hayden Hall Community Development Centre. The program included 93 students and 30 teachers and was held on 13th November 2017.the outreach program comprised of an educational tour of the park along with quiz competition and the showing of a wildlife movie. The children and teachers were also provided with packet lunches, water and juice along with educational materials.

S.No	School Name	No of Students	No of Teachers
1.	Red Cross Primary School	20	5
2.	Buddhist Primary School	19	4
3.	Surottam Vedic School	13	4
4.	R.N Sinha Primary School	14	4
5.	Holy Angels	15	3
6.	Ashram School	5	4
7.	Saipatri Primary School	7	4

The park also organised and hosted several schools separately for the occasion of Children’s Day. 55 students and 12 teachers from Pinewood school, Darjeeling and 25 students and 9 teachers from Ray of hope School, Chong Tong,Darjeeling were given an educational tour including a quiz competition and the showing of a wildlife movie. The children were provided with packet lunches and refreshments along with educational materials.



5. Report on Celebration of World Wildlife Day, 2018

Every year on 3rd March 2018 the world celebrates World Wildlife Day. The theme for this year World Wildlife Day was “Big Cats: Predators under Threat”. Big cats are among the most widely recognized and admired animals across the globe. However, today these charismatic predators are facing many and varied threats, which are mostly caused by human activities. Over the past century we have been losing big cats, the planet’s most majestic predators, at an alarming rate. World Wildlife Day 2018 gives us the opportunity to raise awareness about their plight and to galvanize support for the many global and national actions that are underway to save these iconic species.

In line with the UN General Assembly Resolution proclaiming World Wildlife Day, the CITES Secretariat calls on all member States and organizations of the United Nations system and other global, regional and sub-regional organizations, non-governmental organizations and all interested individuals, to: observe and raise awareness of the theme for World Wildlife Day 2018 in an appropriate manner; to associate the celebrations with major national and international conservation events, where appropriate; to organize campaigns to reduce the demand for illegal wildlife and their products using targeted strategies in order to influence consumer behaviour; and to make use of the World Wildlife Day logo as widely as possible.

Padmaja Naidu Himalayan Zoological Park celebrated World Wildlife Day on 5th March 2018. The park organised an outreach programme for the students of the local schools. 3 students from class 7-8 from each school were invited to participate in a poster making and poster presentation competition held at the park. The theme for the poster making competition was same as the theme for the world wildlife Day i.e. "Big Cats: Predators under threat"

S.No	Name of School
11.	St. Michaels Higher Secondary School
12.	St. Robert's Higher Secondary School
13.	Municipal Boys Higher Secondary School
14.	Municipal Girls Higher Secondary School
15.	Notre Dame Academy
16.	West Point Higher Secondary School
17.	Turnbull Higher Secondary School
18.	Ram Krishna Siksha Parishad Higher Secondary School
19.	Gyanoday Niketan
20.	The Assembly of God Church School

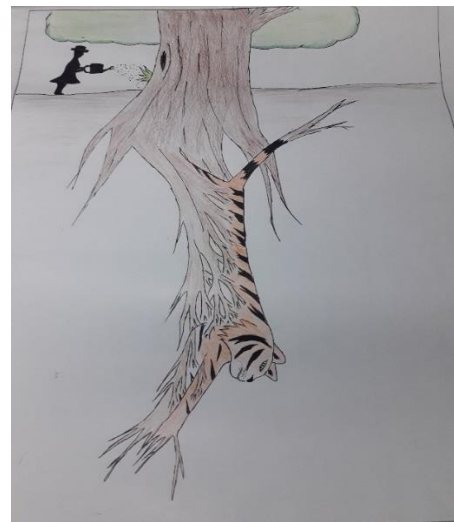
The event started at 10:00 am with registration of the students and the teachers followed by the inauguration ceremony where the inaugural speech was given by Mr. Shiromani Syangden, Estate officer, PNHZP. Ms Upashna Rai, Zoo Biologist, PNHZP gave a presentation on the threats faced by big cats and the efforts being

made to conserve them. The poster making competition began after tea and the children were given an hour to complete their posters and 10 minutes each to present their posters in front of the audience. The winners were chosen on the basis of the creativity and message being conveyed by the posters. Accordingly the winners for the poster making/ presentation were as follows:

Prize	School	Student names	Standard
1 st Prize	St Michaels Higher Secondary School	Sapna Rai	VIII
		Bibek Singh	VII
		Cheden Lepcha	VII
2 nd Prize	St Roberts Higher Secondary School	Kalpiti Gurung	VIII
		Prasanth Tamang	VIII
		Karan Das	VIII
3 rd Prize	Ram Krishna Siksha Parishad Higher Secondary School	Saif Ali	VII
		Aviraj Rai	VIII
		Rajkumar Rai	VIII



First Prize



Second Prize



Third Prize

21. Seasonal special arrangements for upkeep of animals.

Winter (end November – February):

1. Bedding materials provided to the following animals
 - Leopard cat, Jungle Cat, Asian Palm Civet, Himalayan Palm Civet, Slow loris, Asiatic Black Bear.
2. Curtains in all the night shelters for warmth.
3. Heaters, and Blowers in the night shelters.
4. Luke warm water for drinking for all the animals.
5. Quantity of Molasses and honey increased to animals like herbivores Asiatic Black bear and Red Panda.
6. Knitted thatched roof of dry bamboo used for covering the roof of the enclosures.
7. Bedding materials like blankets and straw provided for all the reptiles. Reptile house closed for the visitors.
8. Wooden platforms and wooden frames provided in the night shelters for warmth.

Monsoon (June- September)

1. De-humidifiers used in the night shelters to lower the humidity.
2. Polythene sheets to cover the roof of the enclosures to keep the enclosures and the Kraal area dry.
3. Shelters in the enclosure of the herbivores.
4. Regular clearing of enclosures with thick overgrowths.
5. Care taken to keep the night shelters dry for animal retirement at night.
6. Pheasants with chicks kept inside the chick rearing room.

Spring (March- May)

1. Enrichments for all species done- wooden platforms, aerial walkways, breeding boxes.
2. Feeding enrichments.

22. Research Work carried out and publications

Sl. No.	Name	Institute	Tenure	Area of Work
1	Director Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling.	Initiated from June 2017. The project is ongoing.	Status Survey of Himalayan Goral (<i>Nemorhaedus gora</i>) at Singalila National Park, Neora Valley national Park, Mahananda Wildlife Sanctuary, Senchal Wildlife Sanctuary and Kurseong Division.
2	Dr Mousumi Poddar Sarkar, Prof, Chemical signal and lipidomics Lab. Dept of Botany (Center of advance study UGC.)	PNHZ Park in collaboration with University of Calcutta.	April 2017- March 2018 / April 2018 – 31 st March 2020.	“Marking fluid” (MF) and urine samples of mammals of Felidae family of captive Indian tiger, Clouded Leopard, Black Leopard, Common Leopard, Snow Leopard, Leopard cat from PNHZ Park Darjeeling.

Zoo Interns& Volunteers

The zoo interns and volunteers are provided with all necessary help and a certificate at the end of the study:

Sl No.	Name of the Intern	School/ College/University/Other Institution	Country	Duration of Internship	Area of Work
1	Mr. Khan AamirSohelZafarullah	MSc, (Wildlife Biology), A.V.C college (Autonomous), Tamil Nadu	India	19.05.2017 - 21.07.2017	Drivers of Physiological stress and Behavioral Diversity among Captive Red pandas in North Eastern India
2	Miss Corinne Waheed	BSc, Agricultural Environmental Science, McGill University, Canada	Canada	07.12.2017 - 19.12.2017	Factors affecting the captive breeding success rates of the Red panda and Snow leopard at PNHZP.
3	Mr. Rounak Lama	1 st year B.Sc. (Microbiology), St. Joshep's College, Darjeeling	India	February 2017, October 2017, November 2017	Study of soil micro flora at Padmaja Naidu Himalayan Zoological Park, Dowhill and Topkeydara.
4	MrAkashThapa	3 rd year B.Sc. (Microbiology), St. Joshep's College, Darjeeling	India	February 2017, October 2017, November 2017	Study of soil micro flora at Padmaja Naidu Himalayan Zoological Park, Dowhill and Topkeydara.
5	Ms. AvantikaThapa	MSc, Zoology, Government College	India	15.01.2018 - 27.03.2018	A short term study on the population and richness of Birds at Padmaja Naidu Himalayan Zoological Park.

23. Conservation Breeding Programme of the Zoo

PROJECT SNOW LEOPARD

- Extremely threatened due to hunting, killing, IUCN (2006) lists as endangered (EN-C2a (i)) on the IUCN Red List and IWPA lists it as a Schedule I species. CITES includes it as an Appendix I species. Population estimated below 2500.
- Snow leopard is an extremely beautiful animal distributed along the habitat scattered throughout a vast region surrounding the Central Asian deserts and plateaus ranging from Afghanistan to Uzbekistan. Throughout most of its range, snow leopards are associated with arid and semi arid shrub-land, grassland or steppe. The species is generally found at elevation between 3000m -4600m, although they are known to go above 5500 m in the Himalayas. Steep terrain broken by cliffs, ridges, gullies and rocky outcrops is preferred, although in certain parts like Mongolia and Tibet plateau they can be found in relatively flat country. In India, snow leopard is distributed in the Himalayan chain from Kashmir to Sikkim, northwards their territory extends into Tibet, Central Asia and the Altias in the region of stupendous rock and cliff above the tree- line some 12,000 -13,000ft (3660-3965m) above sea level.
- Hunting of the Snow leopard is one of the major threats to the species. Snow leopards have been hunted out of many of the areas of the high Central Asian Mountain. There is a demand for snow leopard bone from the Chinese medicine trade. Garments of Snow leopard fur were once highly priced in fashion world and although no longer in International trade, fur coats and novelty furs have seen for sale in shops throughout China, Taiwan and Mongolia.
- The species have become extremely rare in many parts of its native habitat. In India, where snow leopards occur on the southern slopes of the Himalayas. The species is listed as endangered under the Wildlife Protection Act (1972). In this respect PROJECT SNOW LEOPARD (PSL), a flagship species programme to strengthen wildlife conservation in the Himalayan high altitude was launched.
- PNHZ Park started work on captive breeding project of this rare species in the year 1983. Apart from a number of ***insitu conservation efforts***, a ***global captive breeding programme*** is in place. Darjeeling zoo has been a part of this initiative since 1986.
- Experts Dr. Ingo Rieger and D. Walzthoeny from USA inspected the site in July 1983 and gave their approval.
- Site selection for off- display conservation breeding centre for snow leopard is the North- Western corner of Jawahar Parbat (Birch Hill) at

an altitude of 27 degree and longitude 88 degree East. Altitude is 6900ft.

- Founder stock of snow leopard at PNHZ Park (1986- 2015)

SI No.	Name of the animal	Sex	International Stud Number	book	Acquired from
1	Kashi	F	1005		Zurich
2	Vishna	M	620		Helsinki
3	Persia	F	697		Toledo Zoo
4	Hank	M	1059		Litterock
5	Quizil	M	1472		Zurich
6	Quilla	F	1473		Zurich
7	Quetta	F	1474		Zurich
8	Tyson	M	1850		Hubstrand . Sweden
9	Neeta	F	2228		Leh
10	Meeta	F	-		Srinagar

- A total of fifty six snow leopard births have been recorded in the park. The table below depicts the birth at an interval of every five years and their survivality.

YEAR	SEX RATIO/TOTAL BIRTH						
	M	F	U	Total birth	M	F	Total survivality
1986-1991	0	2	2	4	0	0	0
1992-1996	6	3	1	10	1	2	3
1997-2001	8	5	0	13	1	2	3
2002-2006	11	7	1	19	5	4	9
2007-2013	6	4	0	10	0	1	1
	31	21	4	56	7	9	16

* Wild caught founder (“Meeta” 227) did not make any contribution to the breeding programme.

- Padmaja Naidu Himalayan Zoological Park in 2003 had 18 Snow leopards (9:9), one of the largest captive population, in a single zoo, in the world.
- Next step was to have at least 4-5 stable captive population of snow leopards at different high altitude zoos in the country, before any release/restocking in the wild can be contemplated. In 2004, a pair each of snow leopard was sent from Darjeeling zoo to Himalayan Zoological Park, Gangtok, Pandit Govind Ballabh Pant High Altitude Zoo, Nainital and Himalayan Nature Park, Kufri, Shimla to start subsidiary snow leopard breeding centers in these Himalayan zoos.

- In between 2004-2013 three individuals died with one cub survival that skewed the option for breeding leaving the captive stock with ten individuals and with limited breeding pairs. The analysis done so far regarding the population management of snow leopard in the facility came up with the following recommendations:
 - Scientific management of the Breeding programme including development of husbandry protocols.
 - In order to maintain the genetic variability and to provide with larger breeding options animal exchange should be made regularly in consultation with the International Stud book keeper. Individuals > 16 years should not be considered for breeding.
 - Demographic and genetic analysis mandatory of captive stock.
 - Newer breeding facilities to be established.
- Based on the recommendations

A short term research on the “**Study of Snow leopards**” funded by Central Zoo Authority looked into developing ex-situ husbandry aspects particularly to look into persistent problems that existed in the breeding programme majorly **cub mortality** and **brittle bone diseases**. The research work proved to be beneficial and provided recommendations for creating appropriate facilities for breeding, cub care and their survivability. Adopting these methods the 3 cubs born in 2012 and 2014 survived. Besides this the research work helped in giving inputs during the establishment of the new breeding centre for the snow leopards where the night shelters, breeding dens, enclosures, veterinary facilities have been developed based on the recommendations of the findings.

Genetic study of the captive stock was done by LaCONES, CCMB. Reports concluded that 1:1 out of the total captive stock are genetically more vibrant when compared with other samples and the two individuals can be used for conservation breeding.

Studbook analysis: **inbreeding- not advisable Low coefficient-advisable**. Demographic analysis suggested that new founders be added to the captive population and the population size be increased to at least 100 individuals with equal sex ratio in the period of next ten years. The population projection for both actual and modeled population suggest that the goal of maintaining at least 100 genetically viable and demographically stable individuals in captivity in India cannot be achieved without the addition of fresh founders and utilizing the reproduction potential of the captive population to the maximum.

Based on the genetic and demographic analysis of the captive stock 2:2 individuals was included in the captive. The captive stock in June 2014 is as follows:

SL.no.	Name	Stud #	Sex	Birth Date	Sire	Dam	Location	Transponder
1	Karan	1897	M	23.10.1995	1059	1474	Darj	981098102057256
2	Tista	2399	F	29.03.2002	1897	2228	Darj	00-0611-4DB1
3	Budha	2401	M	19.06.2002	1850	1797	Darj	00-061-FA9B
4	Prabhat	2405	M	8.07.2002	1850	1899	Darj	00-0618-24E0
5	Ritu	2538	F	11.03.2004	1897	2228	Darj	981098102056547
6	Yasmin	2540	F	25.05.2004	1850	1797	Darj	ID-00-00F6-8A38
7	Rare	2994	F	19.06.2012	2405	2538	Darj	956000002158446
8	Kim	2846	F	29.05.2012	2566	2430	Nurnberg, Darj	3968000005548177
9	Subash	2402	M	08.07.2002	1850	1899	Darj	00-0617-C8C5
10	Lavani	2861	F	06.05.2010	2469	2274	Lodz,Darj	968000005545293
11	Zima	2862	F	06.05.2010	2469	2274	Lodz,Darj	968000005542846
12	Sici	2935	M	22.05.2011			Jhilava zoo, Czech Republic	956000001977872
13	Morning	3159	U	02.05.2014	2401	2861	Darj	
14	Shining	3160	U	02.05.2014	2401	2861	Darj	

Total population and their sex ratio: 14 (5:7:2)

- Death of one male in 2014, death of 2 males in 2015 and 1 male in 2016 skewed the breeding options leaving the Park with 1 male and 8 female.
- In consultation with the International Stud book keeper an animal exchange programme has been proposed with Dudley zoo and Mulhouse zoo.
- Two males acquired from Dudley Zoo, London and Mulhouse Zoo, France.
- One of the male used for breeding.
- Three litters born to this male.

SL.no.	Name	Stud#	Sex	Birth Date	Sire	Dam	Location	Transponder	Remarks
1	Tista	2399	F	29.03.2002	1897	2228	Darjeeling	00-0611-4DB1	
2	Ritu	2538	F	11.03.2004	1897	2228	Darjeeling	981098102056547	
3	Yashmin	2540	F	25.05.2004	1850	1797	Darjeeling	ID-00-00F6-8A38	
4	Rare	2994	F	19.06.2012	2405	2538	Darjeeling	956000002158446	
5	Kim	2846	F	29.05.2012	2566	2430	Nurnberg, Darj	3968000005548177	
6	Subash	2402	M	08.07.2002	1850	1899	Darj	00-0617-C8C5	
7	Lavani	2862	F	06.05.2010	2469	2274	Lepzig, Darj	968000005545293	
8	Zima	2861	F	06.05.2010	2469	2274	Lepzig, Darj	968000005542846	
9	Morning	3159	F	02.05.2014	2401	2862	Darj		
10	Makalu	3140	M	17.04.2014	2826	2813	Dudley Zoo, London	956000001458313	Acquired From Dudley Zoo, London on 25.06.2016
11	Namkha	3141	M	16.06.2016	1847	2887	Mulhouse Zoo, France	250228730005176	Acquired from Mulhouse Zoo, France on 01.09.2016
12	Unidentified	3335	M	04.03.2018	3141	2861	Darjeeling		
13	Unidentified	3336	F	04.03.2018	3141	2861	Darjeeling		

Current stock of Snow leopard as on 31st May 2018.

FUTURE WORKS:

- 1) Regular genetic demographic and hormonal analysis of the captive stock to ensure maximum genetic variability.
- 2) Behavioural study in captivity.
- 3) Research on the health issues of the species in young, adults and old individuals. Frequent occurrence of pneumonia, brittle bone disease, what leads to the occurrence of such diseases in higher frequency in captivity? Its preventive measures etc.
- 4) More exchange programmes.
- 5) Linkage of the ex-situ conservation with in-situ conservation.

Project Red Panda

- Red panda *Ailurus fulgens* is a small mammal of the Himalayas, almost of the size of the jungle cat with chestnut coat and ringed tail. It is distributed in the Himalayas from Central Nepal through northern Burma in the mountains of southwestern China at altitudes between 900-13,000 feet. In India, red panda is distributed in Sikkim, Darjeeling Hills and Arunachal Pradesh.
- Red panda is threatened by habitat loss and fragmentation. Red panda was also hunted and trapped in large number to be kept as pets and for supply to zoos all over the world. The species is enlisted as Endangered by the IUCN (2006) with a declining population in its distribution range. The species is a protected species in all its range countries (Nepal, Bhutan, India, Burma and China). In India the species receives protection under the Indian Wildlife Protection Act (1972). The species is also under the CITES I Appendix. Population estimated below 2500.
- In captivity, a global captive breeding program is in place something which started in the early 1990s in Europe. Padmaja Naidu Himalayan Zoological Park, Darjeeling which at present has 17 (10:7) red pandas is also a part of this breeding program for the red panda. The zoo was able to restock four red pandas back to the wild as a conservation initiative.
- A planned conservation Breeding Project as a part of the Global Captive Breeding Project as a part of the Global Captive Breeding Master Plan was initiated in early nineties in the Zoological Park in response to the International Conservation efforts, through initiation of the project and improvement/modification of existing housing facilities which already existed.
- Zoological Park had one male (Basant) and three females (Amita, Chanda and Divya) all of wild origin in the stock at the beginning of the Project in 1990. Hence one male "Oscar" (d.o.b June 29,1992) was brought from Rotterdam Zoo in April 1, 1993 to augment the existing population of 4 red Pandas in the zoological Park.
- The first successful planned breeding of red Panda occurred on 20.06.1994 when two cubs "Ekta" and "Friend" were born to "Basant" and "Amita"
- Hari (d.o.b – June 30, 1993, Rotterdam), Gora (male, d.o.b-June 25,1993, Koln) and Indira (female d.o.b.-June 26,1993, Madrid) arrived in Darjeeling on November 10, 1994 to induce new blood and to continue the planned breeding programme.

- PNHZ Park in 2003 had a stable and genetically healthy population of 21 red pandas in captivity. Pair at Gangtok (Sikkim) Zoo (a subsidiary breeding center established in the region) has also started breeding.
- The zoological park was in a position of realizing the ultimate objective of the project of releasing zoo bred red pandas in the wild in the Singalila national park , to begin with
- Guidelines stipulated by the IUCN for re-introduction/re-stocking of captive born wild animals were followed in totality for the programme. All necessary clearances from Govt. of India and Govt. of West Bengal were obtained for the purpose.
- Pre-release monitoring of the red panda population and habitat in the Gairibans area of the Singalila National Park was organized during November/December, 2002.
- DNA based analysis was conducted in collaboration with Centre for cellular and Molecular Biology, Hyderabad for taxonomic status and genetic variability studies.
- An Intermediary release facility (50 sq m) for soft release o the animals were created near Gairibans Beat office (around 8500ft) of South Singalila Range in the Singalila national Park. The construction cost was fully funded by the Central Zoo Authority, Govt. of India.
- Both the animals were shifted to the intermediary release facility at Gairibans for acclimatization and kept there for 3-4 months. Though they were in the wild , they were still under the supervision and observation of some of the zoo staffs posted there. When the animals were thought to have acclimatized well to the environment, they were finally released into the wild.
- Radio collars of appropriate size and weight were fitted on the animals for their post-release monitoring for at least 12 months (or till batteries of the collars were functional).
- Out of the two female red pandas (Mini and Sweetie) released in 2003, sweetie gave birth to a cub in July 2004 in a hollow of an oak tree in Gairibans (SNP, Darjeeling).
- In 2007 and 2008 two wild caught males were added to the captive stock including one female from Auckland zoo to increase the breeding potential.
- In 2010 one captive born female was brought from Auckland Zoo, New Zealand to add variability to the existing population.
- In 2012 Red Panda census was carried out in two phases the objective of the census was to -Conduct meetings and train locals for the census, Assess the population number -*Assess the habitat, Further verification of the population status by genetic analysis through fecal samples, Other existing animals in the Red Panda habitat, Threat analysis, GIS Mapping of both the National Parks.*

- 31 Red Pandas through direct sighting in both National parks. Through genetic analysis 38 in SNP (17:4:17) and 32 (12:13:7) in NVNP.
- A short term research Project was also initiated from March 2012-2014 funded by Central Zoo Authority on “**Study of Red Panda (*Ailurus fulgens*) in ex-situ facilities in co-relation with in-situ facilities for conservation breeding**” funded by Central Zoo Authority.
- The genetic analysis of blood and faecal samples observed showed that captive Red Panda at PNHZP, Darjeeling are genetically vibrant and can be used selectively for Conservation breeding (CCMB) in 2013.
- A collaborative work on the Red Panda Stress level-hormonal analysis with LaCONES, CCMB completed, results indicates cyclicity of all female individuals in 2013-2014.
- A Research project “Study on housing, enclosure enrichment, evaluation of existing housing and enrichment practices” also funded by Central Zoo Authority conducted by Wildlife Institute of India also includes the species Red Panda.
- New breeding facility at Topkedara for the Red Pandas.
- A short term research Project was also initiated from March 2013-2015 funded by Central Zoo Authority on “**Red Panda Nutrition-Towards an Integrated Approach**”.
- Population Habitat Viability Analysis for Red Panda done on November 2014.
- Pt. Govind Ballabh Pand High Altitude Zoo, Nainital approved as participating Zoo by Central Zoo Authority vide letter F.N.O 24-7/2007-CZA(Vol.II)(A)/3613 dated 25.9.2013.
- A pair of Red Panda was transferred to Nainital Zoo on 25.11.14. The pair gave birth to two cubs in 2015, thus ensuring a captive population that shall later assist the breeding programme at Darjeeling Zoo.
- One captive female added to the captive stock from Sikkim Zoo for further breeding.

Current stock of Red Panda as on 31st March 2018

SL NO	NAME	STUD BOOK NO.	SEX	SIRE	DAM	DT OF ACQ	DOB	TRANSPONDER NO
1	Pokhraj	01128	M	Gora	Ekta	Captive born	18.6.01	ID-00-061-FD19
2	Ram	1088	M	John	Sheetal	Captive born	22.6.10	0006B82659
3	Janaki	1089	F	John	Sheetal	Captive born	22.6.10	0006B7428B
4	Rigsal	0789	F	Rahul	Lucky	31.10.11 from Sikkim Zoo	28.05.07	0006B7107E
5	Smile	12123	F	Kaijalay	Samridhi	Captive born	19.6.2012	956000002159372
6	Shifu	13175	M	Kaijalay	Risgel	Captive born	27-6-2013	956000002147924
7	Kitchi	13176	F	Kaijalay	Risgel	Captive born	27-6-2013	956000002145534
8	Shova	11116	F	Ram	Lucky	22.02.2014 from Sikkim Zoo	07.6.2011	956000002158277
9	Shine	14174	F	Kaijalee	sambridhi	Captive born	04.7.2014	0007150CC1
10	Balam	15117	M	Kaijalee	Janaki	Captive born	07.6.2015	00074C5ADA
11	Prashana	15118	F	Ram	Shova	Captive born	16.6.2015	000715472D
12	Noel	15119	M	Shifu	Sheetal	Captive born	14.7.2015	-
13	Joel	15120	M	Shifu	Sheetal	Captive born	14.7.2015	00075046F5
14	Karma	10118	F	Ram	Lucky	23.11.2015 from Sikkim Zoo	3.6.2010	956000002158469

15	Unnamed		M	Balam	Rigsel	Captive born	08.7.2017	
16	Unnamed		F	Balam	Rigsel	Captive born	08.7.2017	
17	Unnamed		F	Shifu	Prashana	Captive born	16.7.2017	

Ongoing Work in the Red Panda Project:

- Research work being conducted on ***“Population & behavioural Ecology of Red Panda at Singalila national Park and Neora Valley National Park, West Bengal, India with special reference to conservation”*** funded by West Bengal Zoo Authority.

Future Work:

Ex-situ:

- Encourage exchange of Red panda among zoos at national and international level.
- Scope to include Himalayan Nature Park, Kufri and Itanagar Zoo, Arunachal Pradesh to be participating zoos in the Red panda Conservation Breeding Programme.
- Compilation of husbandry guidelines for red Panda.
- Formulate Population Management Plan/Species Survival Plan.
- Basic behavioural study on the captive red pandas.
- Restocking of captive red pandas.
- Take up advance studies with the research organizations – Genetic studies/Germplasm banking/disease screening/hormonal and behavioural studies.
- Better awareness and knowledge dissemination.
- Participation in the GSMP's.
- Opportunities for Zoo/Wildlife Veterinarians, Biologists, Technicians, Animal Supervisors and Zoo Keepers.

In-situ:

- Zoos and other organization routinely conduct surveys of one or more PA's (population/genetics).
- Intensive management of protected areas – SNP and NVNP.
- Routine threat assessment.

24. Animal acquisition / transfer / exchange during the year

A. Animals arriving in the Zoo					
H.NO.	Species	Number (M:F)	From which Zoo	Date of arrival in the zoo	
1	Jungle Cat (<i>Felis chaus</i>)	1:1	Sanjay Gandhi Biological Park, Patna.	21.03.2018	
2	Sambar Deer(<i>Rusa unicolor</i>)	1 (M)	North Bengal Wild Animal Park, Siliguri.	23.03.2018	
B. Animals going from the zoo					
H.NO.	Species	Number (M:F)	Going to which Zoo	Date of deposition from the zoo	
1	Asiatic Black Bear(<i>Ursus thibetanus</i>)	1:1	North Bengal Wild Animal Park, Siliguri.	24.10.2017	
2	Kaleej Pheasant (<i>Lophura leucomelana</i>)	1 (M)	Sanjay Gandhi Biological Park, Patna.	13.12.2017	
3	Red Jungle Fowl (<i>Gallus gallus</i>)	1 (M)	Sanjay Gandhi Biological Park, Patna.	13.12.2017	
4	Golden Pheasant (<i>Chrysolophus</i>)	3:3	Sanjay Gandhi	13.12.2017	

		<i>pictus</i>)		Biological Park, Patna.	
	5	Silver Pheasant (<i>Lophura nycthemea</i>)	1 (F)	Alipore Zoological Gardens.	5.3.2018
	6	Golden Pheasant (<i>Chrysolophus pictus</i>)	1:1	Burdhawan Zoological Gardens	15.3.2018
	7	Silver Pheasant (<i>Lophura nycthemea</i>)	1:1	Burdhawan Zoological Gardens	15.3.2018

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

Sl.No.	Date of Rescue	Species with number of animals rescued with their sex (M: F:U:T)	Received from	Date of Submission of Report to the CWLW / CZA	Action taken	
					Date and Place of rehabilitation in their habitat	Reasons for housing in the zoo, if not released in their habitat
NIL						

26. Annual Inventory of animals

Form – II

[See Rule 11(1)]

Part – A

Inventory Report for the Year :

Endangered Species*

S.N o.	Anim al Nam e	Scienti fic name	Opening Stock as on				Births			Acquisitio n			Dispo sal			Death			Closing Stock as on			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T

*Animals under Schedule I and Schedule II of the Wild Life (Protection) Act, 1972

Part – B

Other than Endangered Species

S.N o.	Ani mal Nam e	Scient ific name	Opening Stock as on				Births			Acquisiti on			Dispos al			Death			Closing Stock as on			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T

(copy attached)

26. 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

(copy attached)

28.Compliance with conditions stipulated by the Central Zoo Authority

Sr. No	Norm No. under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions
1	1:1.3	Visitor's movement is orderly but one of the road to Himalayan Mountaineering Institute passed through the zoo as a result movement of the zoo cannot be prevented at any time. Alternative arrangement can be explored	With immediate effect		Due to lack of space in the display area of the Park, there is no scope of having an alternative path for viewing the herbivore section neither the movement of the Himalayan Mountaineering Institute's vehicle can be restricted.
Administrative and Staffing Pattern:					
2	2:2.3	The zoo should have adequate scientific and technical personnel to support the officer in – charge in carrying out the responsibilities of housing, upkeep and healthcare of zoo animals, research and visitor education as specified below: 1. Curator- 1 No. 2. Veterinarian-1 No. 3. Education Officer- 1 No. 4. Biologist- 1 No	One Year		The park has one Zoo Biologist and one education assistant on contract basis. The park has one veterinarian from the Animal Husbandry Department, Govt. of West Bengal on deputation.
Development and Planning					
3	3:3.8	All rescued endangered species when housed in the zoo should be reported to Central Zoo Authority.	With immediate effect		No endangered animal species have been rescued by the park , however whatever is rescued is reported to Central Zoo Authority.
Animal housing, display of animals and animal enclosures:					
4	4: 4.1	Since it is an old zoo located on a hilly terrain , it is difficult to make immersion exhibits at this point of time. However efforts should be made to have at least a couple of such enclosures.	Two years		Bamboos have been planted in front of the carnivore enclosures. Small bush and hedges have been established in front of the aviaries.

Sr. No	Norm No.Under RZR, 2009	Condition Stipulated	Time Period to Comply	Since when pending	Status with regard to compliance of the conditions
5	4:4.2	Most bird enclosures have chain link mesh on all sides including top with no visual barrier between enclosures. This should be modified with partial covering on the top and the entire keeper's gallery with suitable screening between the adjacent enclosures including at Dow Hill.	Two years		For visual barrier between two adjacent bird enclosures bamboo frames have been provided which has also given a naturalistic look to the enclosure.
6	4:4.9(a)	Appropriate standoff barrier have not been provided in the herbivore enclosures because of dearth of space however some attempt may be made by placing potted plants and temporary SOB	Immediate effect		Potted plants have been placed in front of the herbivore enclosures.
7	4: 4.10 (a)	There are good signages but efforts should be made to make the fonts larger and the information in such a manner that it looks attractive and informative.	Six months		Attractive and informative signages with larger fonts have been put up in all the enclosures of the display area.
Upkeep and healthcare of animals					
8	5.2(6)	The portable water provided to the animals should be tested periodically	Six months		The water supply is from the Municipality which is treated well. No other source of water is supplied to the animals.
Veterinary and infrastructure facilities					
9	6.1 (c)	Squeeze cage facility to carnivores and herbivores should be provided as soon as possible	Six months		New squeeze cages have been made for the carnivores and herbivores.
10	6.1 (d)	Separate room/area for equipment cleaning and sterilization to be provided as soon as possible.	One year		A separate room for equipment cleaning and sterilization has been done in the new hospital unit.
11	6.2 (3)	Veterinarians and technicians are experienced. However, they need proper training for skill upgradation.	One Year		The zoo veterinarian is sent to the annual workshop for veterinarians organised by Central Zoo Authority. A communication vide this office memo No: 813/V.S.16/PNHZP/15-16 dated 15.03.2016 to Dr. A.K. Sharma, Principal Scientist & in-charge, IVRI have already been sent requesting for

					the lab technician training. The Director IVRI has already communicated the matter to CZA vide its letter memo No: F.2-19DI/NRC/2015-16/CWL dated 17.03.2016
Acquisition and breeding of animals:					
12	9:9.10	Mock drills should be conducted at regular intervals to safeguard against escape of the zoo animals from the premises of the zoo and in the vent of any accidental escape, immediate action shall be taken to retrieve the escaped animals.	Six months		Mock drills are performed on small scale level during Thursdays around the bear enclosure. Emergency equipments such as fire extinguishers, water pipes, ropes, ladders, torch lights etc are always kept handy in all the animal beats.
Visitors facilities					
13	12:12.3	The zoo should make arrangements for differently abled persons for access and viewing wild animals at various animal enclosures	Six months		Wheel chairs are provided for differently abled persons. The Visitors pathways are without steps which acts like ramp.

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

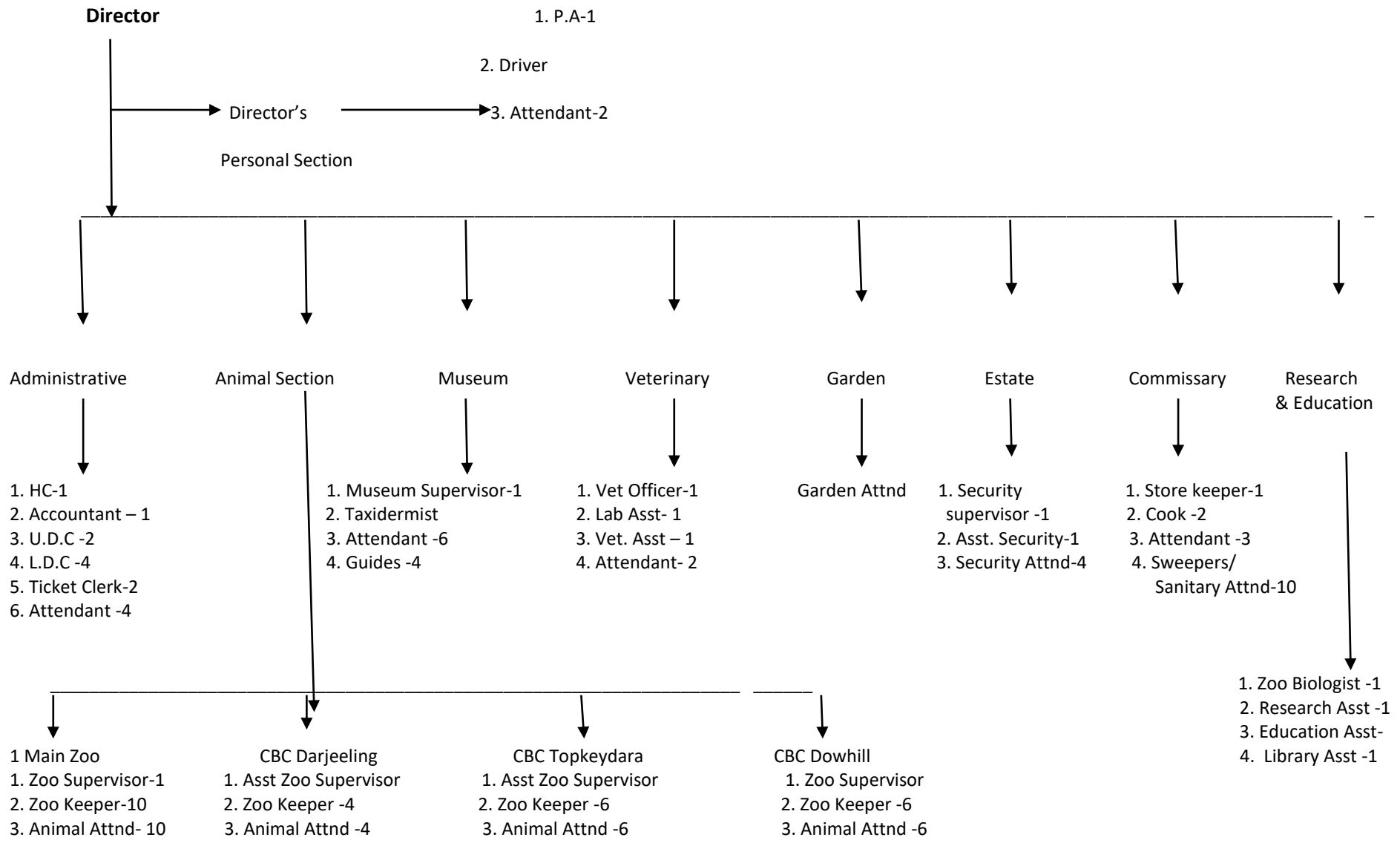
a. Mammals

Sl. No.	Common Name	Scientific Name
1	Jackal	<i>Canis aures</i>
2	Fox	<i>Vulpes bengalensis</i>
3	Himalayan Palm Civet	<i>Paguma larvata</i>
4	Himalayan Yellow Throated martin	<i>Martes flavigula</i>
5	Hoary bellied Himalayan Squirrel	<i>Callosciurus pygerythrus</i>
6	Giant flying squirrel	<i>Petaurista philippensis</i>
7	Barking deer	<i>Muntiacus muntjak.</i>
8	Leopard Cat	<i>Prionailurus bengalensis</i>
9	Assam macaque	<i>Macaca assamensis</i>

b.)BIRDS		
1	<i>Aethopyga nipalensis</i>	Green tailed sunbird
2	<i>Alcippe castaneiceps</i>	Rufous winged fulvetta
3	<i>Arachnothera longirostra</i>	Little spider hunter
4	<i>Certhia nipalensis</i>	Rusty flanked tree creeper
5	<i>Cissa chinensis</i>	Common green magpie
6	<i>Corvus macrorhynchos</i>	Largebilled crow
7	<i>Culicicapa ceylonensis</i>	Gray headed canary flycatcher
8	<i>Dendrocopos canicapillus</i>	Grey-capped pygmy woodpecker
9	<i>Dendrocopos darjellensis</i>	Darjeeling woodpecker
10	<i>Dendrocopos macei</i>	Fulvous breasted woodpecker
11	<i>Eumyias thalassina</i>	Verditer flycatcher
12	<i>Ficedula hyperythra</i>	Snowy browed flycatcher
13	<i>Ficedula westermanni</i>	Little pied flycatcher
14	<i>Garrulax erythrocephalus</i>	Chestnut crowned laughing thrush
15	<i>Gracula religiosa</i>	Hill myna
16	<i>Heterophasia capistrata</i>	Rufous sibia
17	<i>Hypsipetes leucocephalus</i>	Black bulbul
18	<i>Icinaetus malayansis</i>	Black eagle
19	<i>Lanius tephronotus</i>	Grey backed shrike
20	<i>Leiothrix argentauris</i>	Silver eared mesia
21	<i>Minla ignotincta</i>	Red tailed minla
22	<i>Minla strigula</i>	Chestnut tailed minla
23	<i>Monticola rufiventris</i>	Chestnut bellied

		rock thrush
24	<i>Myiomela leucora</i>	White tailed robin
25	<i>Myophonus caeruleus</i>	Blue whistling thrust
26	<i>Niltava grandis</i>	Large niltava
27	<i>Orthotomus cuculatus</i>	Mountain tailorbird
28	<i>Parus monticolus</i>	Green backed tit
29	<i>Passer montanus</i>	Urasian tree sparrow
30	<i>Pericrocotus ethologus</i>	Long tailed minivet
31	<i>Pericrocotus flammeus</i>	Scarlet minivet
32	<i>Phylloscopus affinis</i>	
33	<i>Phylloscopus trochiloides</i>	Greenish tree warbler
34	<i>Picus chlorolophus</i>	Lesser yellownape
35	<i>Picus flavinucha</i>	Greater yellownape
36	<i>Psittacula eupatria</i>	Alexandrine parakeet
37	<i>Psittacula krameri</i>	Rose ringed parakeet/ green parrot
38	<i>Pycnonotus flaviventris</i>	Black crested bulbul
39	<i>Rhipidura albicollis</i>	White throated fantail
40	<i>Rhipidura aureola</i>	White browed fantail
41	<i>Rhyacornis fuliginosus</i>	Plumbeous water redstart
42	<i>Seicercus castaniceps</i>	Chestnut crowned warbler
43	<i>Sitta himalayensis</i>	White tailed nuthatch
44	<i>Tesia castaneocoronata</i>	Chestnut headed tesia
45	<i>Turdus boulboul</i>	Grey winged black bird
46	<i>Yuhina flavicollis</i>	Whiskered yuhina
47	<i>Yuhina gularis</i>	Stripe throated yuhina
48	<i>Lophura leucomelanos</i>	Kalij Pheasant
49	<i>Gallus gallus</i>	Red Jungle fowl

c)Reptiles	
The common house gecko	<i>Hemidactylus frenatus</i>
Gray's Skink	<i>Sphenomorphus indicus</i>
Common Skink	<i>Mabuya carinata</i>
Green Trinket Snake	<i>Elaphe prasina</i>



Annual Inventory Report of Padmaja Naidu Himalayan Zoological Park (1st April 2017-31st March 2018)

S. No	Species Name	Animal Name	Scientific Name	Opening stock 1.4.17				Births			Acquisitions			Disposals			Deaths			Closing Stock 31.3.2018			
				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Endangered species (Schedule I and II)				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Amphibian	Himalayan Newt	<i>Tylototriton verrucosus</i>	6	7	16	29	0	0	0	0	0	0	0	0	0	0	0	0	6	7	16	29
2	Bird	Pheasant Cheer	<i>Catreus wallichii</i>	2	2	0	4	0	0	3	0	0	0	0	0	0	0	0	0	3	4	0	7
3	Bird	Pheasant Grey Peacock	<i>Polyplectron bicalcaratum</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4	Bird	Pheasant Kalij	<i>Lophura leucomelana</i>	13	5	0	18	0	0	2	0	0	0	2	0	0	2	2	1	10	3	0	13
5	Bird	Pheasant Monal	<i>Lophophorus impejanus</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	2
6	Bird	Tragopan Temminck's	<i>Tragopan temminckii</i>	8	6	0	14	0	0	2	0	0	0	0	0	1	1	0	8	6	0	14	
7	Mammal	Bear Himalayan Black	<i>Ursus thibetanus</i>	2	2	0	4	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	2
8	Mammal	Cat Jungle	<i>Felis chaus</i>	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	2	1	0	3
9	Mammal	Cat Leopard	<i>Prionailurus bengalensis</i>	2	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	2	1	0	3
10	Mammal	Civet Common Palm-cat Toddy	<i>Paradoxurus hermaphroditus</i>	5	3	0	8	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	8
11	Mammal	Civet Himalayan Palm/ Masked	<i>Paguma larvata</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S. No	Species Name	Animal Name	Scientific Name	Opening stock 1.4.17				Births			Acquisitions			Disposals			Deaths			Closing Stock 31.3.2018			
				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
12	Mammal	Jackal	<i>Canis aures</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
13	Mammal	Langur Common	<i>Semnopithecus entellus</i>	3	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	3	2	1	6
14	Mammal	Common Leopard	<i>Panther Pardus</i>	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4
15	Mammal	Leopard Clouded	<i>Neofelis nebulosa</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16	Mammal	Leopard Snow	<i>Uncia uncia</i>	3	8	0	11	0	0	2	0	0	0	0	0	0	0	0	0	3	8	2	13
17	Mammal	Loris Slow	<i>Nycticebus bengalensis</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
18	Mammal	Markhor	<i>Capra falconeri</i>	2	2	0	4	1	1	0	0	0	0	0	0	0	1	0	0	2	3	0	5
19	Mammal	Panda Red/Lesser	<i>Ailurus fulgens fulgens</i>	7	8	0	15	0	0	3	0	0	0	0	0	0	1	0	0	7	10	0	17
20	Mammal	Sheep Blue/Bharal	<i>Pseudois nayaur</i>	6	5	1	12	1	0	1	0	0	0	0	0	0	0	0	0	8	6	0	14
21	Mammal	Tahr Himalayan	<i>Hemitragus jemlachius</i>	3	3	1	7	0	1	1	0	0	0	0	0	0	0	0	0	5	4	0	9
22	Mammal	Tiger Bengal	<i>Panthera tigris tigris</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1
23	Mammal	Wolf Tibetan	<i>Canis lupus chanco</i>	1	5	0	6	0	0	4	0	0	0	0	0	0	2	0	0	1	3	4	8
24	Mamma	Yak Wild	<i>Bos grunniens</i>	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
25	Reptile	Python Indian Rock	<i>Python molurus</i>	1	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	3
26	Reptile	Viper Russells	<i>Dabola russelii</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total of Endangered Species				76	67	18	161	2	2	19	1	2	1	3	1	0	5	8	1	78	68	24	170


Species (Schedule II and IV)																							
S. No	Species Name	Animal Name	Scientific Name	Opening stock 1.4.17				Births			Acquisitions			Disposals			Deaths			Closing Stock 31.3.2018			
				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
27	Bird	Red Jungle Fowl	<i>Gallus gallus</i>	13	12	2	27	0	0	13	0	0	0	1	0	0	0	0	5	17	15	2	34
28	Bird	Parakeet Alexandrine	<i>Psittacula eupatria</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
29	Bird	Parakeet Rose Ring	<i>Psittacula krameri</i>	0	1	5	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	5
30	Mammal	Deer Barking	<i>Muntiacus muntjak</i>	3	8	0	11	1	0	1	0	0	0	0	0	0	0	1	0	4	8	0	12
31	Mammal	Deer Sambar	<i>Rusa unicolor</i>	1	2	0	3	0	0	0	1	0	0	0	0	0	1	0	0	1	2	0	3
32	Mammal	Goral	<i>Naemorhedus goral</i>	6	5	0	11	1	1	1	0	0	0	0	0	0	0	0	0	8	6	0	14
33	Reptile	Sand Boa	<i>Eryx johnii</i>	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
34	Reptile	Tortoise Indian Star	<i>Geochelone elegans</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
Total				26	29	8	63	2	1	15	1	0	0	1	0	0	2	3	5	32	31	8	71
Exotic Species				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
35	Bird	Cockatiel	<i>Nymphicus hollandicus</i>	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	3	0	0	25	25
36	Bird	Bare Eyed Cockatoo	<i>Cacotua sanguinea</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
37	Bird	Sulphur Crested Cockatoo	<i>Cacotua sulphurea</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
38	Bird	Roseate Cockatoo	<i>Elophus roseicapilla</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
39	Bird	Red and Blue Macaw	<i>Ares chloropterus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2

S. No	Species Name	Animal Name	Scientific Name	Opening stock 1.4.17				Births			Acquisitions			Disposals			Deaths			Closing Stock 31.3.2018			
				M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
40	Bird	Blue and Gold Macaw	<i>Ares chloropterus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
41	Bird	African Grey Parakeet	<i>Paittacus erithacus</i>	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3
42	Bird	Golden Pheasant	<i>Chrysolophus pictus</i>	9	17	0	26	0	0	12	0	0	0	4	4	0	0	1	0	9	17	3	29
43	Bird	Lady Amhrest Pheasant	<i>Chrysolophus amherstiae</i>	1	5	0	6	0	0	5	0	0	0	0	0	0	0	0	0	4	7	0	11
44	Bird	Reeves Pheasant	<i>Syrmaticus reevesii</i>	4	6	0	10	0	0	0	0	0	0	0	0	0	1	0	0	3	6	0	9
45	Bird	Silver Pheasant	<i>Lophura nyctthemea</i>	7	12	2	21	0	0	3	0	0	0	1	2	0	0	1	0	8	10	2	20
46	Bird	Turaco	<i>Tauraco</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total of Exotic Birds				28	46	30	104	0	0	20	0	0	0	5	6	0	2	2	3	30	46	30	106
Grand Total				131	142	56	329	4	3	54	2	2	1	9	7	0	9	13	9	141	145	62	348

MORTALITY List
PNHZ Park Darjeeling
1st April 2017-31st March 2018

	Date	Animal	Sex	No.	Cause of Death
Mammals					
	25.04.2017	Himalayan Wolf	F	1	Death may be due to old age and multi organ failure.
	05.05.2017	Markhor	M (faun)	1	Death may be due to ill nursing
	24.07.2017	Himalayan Wolf	F	1	Death may be due to prolonged treatment for convulsion caused by epilepsy.
	21.08.2017	Royal Bengal Tiger	F	1	Death may be due to old age and multi organ failure.
	10.11.2017	Royal Bengal Tiger	F	1	Death may be due to old age and multi organ failure.
	01.10.2017	Red panda	M	1	Death may be due to old age and multi organ failure.
	04.02.2018	Sambar deer	M	1	Acute gastritis
	28.03.2018	Barking deer	F	1	Death may be due to injury in the thoracic region and abdominal region, internal bleeding observed.
				8	
Pheasants					
	08.04.2017	Cockatiel	U	1	Hypothermia.
	12.04.2017	Cockatiel	U	1	Hypothermia
	16.04.2017	Rose breasted Cockatoo	M	1	Hypothermia
	30.04.2017	Kalij Pheasant	M	1	Death may be due to infighting, injury marks both in the head and thoracic region.
	01.05.2017	Kalij Pheasant	M	1	Death may be due to infighting, injury marks both in the head and thoracic region.
	03.05.2017	Temminck's tragopan	F	1	Egg bound condition.
	16.05.2017	Red Jungle fowl	U	1	Death may be due to injury in the head and eye

					region.
	20.05.2017	Kalij Pheasant	F	1	Death may be due to infighting as evident by injury marks in the head.
	06.06.2017	Kalij Pheasant	U	1	Predated.
	22.06.2017	Cockatiel	U	1	Hypothermia
	10.7.2017	Kalij Pheasant	F	1	Death may be due to infighting
	16.07.2017	Reeve's Pheasant	M	1	Accidental death (dashing)
	09.10.2017	Parakeet Rose Ringed	F	1	Death may be due to old age and multi organ failure.
	03.10.2017	Himalayan Monal	F	1	Death may be due to injury in the head. Clotting in the brain region found.
	08.11.2017	Temminick's Tragopan	M	1	Accidental death
	01.12.2017	Silver Pheasant	F	1	Enteritis
	02.02.2018	Golden Pheasant	F	1	Death may be due to fatty liver condition and fat deposition covering mostly all the vital organs.
	26.02.2018	Red Jungle Fowl	U	1	Predated
	02.03.2018	Red Jungle Fowl	U	1	Predated
	02.03.2018	Red Jungle Fowl	U	1	Predated
	05.03.2018	Red Jungle Fowl	U	1	Predated
				21	
Reptiles					
	14.04.2017	Star Tortoise	F	1	Hypothermia
	14.06.2017	Star Tortoise	M	1	Hypothermia
				2	
Total				31	


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