



ANNUAL REPORT 2020-21

PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK

DARJEELING | INDIA

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PADMAJAN NAIDU HIMALAYAN ZOOLOGICAL PARK & HIMALAYAN MOUNTAINEERING INSTITUTE



ENTRY

EXIT

ISAARC COUNTRIES
* INDIA, NEPAL, BHUTAN, BANGLADESH, MALDIVES, SRI LANKA, PAKISTAN, MALDIVE
60/-

TICKET COUNTER
TIMINGS
8:30 am TO 4:00 pm

THANK YOU
PLEASE REUSE A FACE MASK AT ALL TIMES



COVID-19
LET US BE SAFE TOGETHER

- Wear a face mask and gloves & distance before
- Do not use handshakes to greet the following and goodbye
- Wash your hands with soap & water for 20 seconds
- Do not touch your face, especially your eyes, nose, and mouth
- Avoid sharing food or drinks with others
- Wash your hands with soap & water for 20 seconds

पदमजा नायडु हिमालयन ज्योलोजिकल पार्क
दार्जिलिङ

हिमालयन माउन्टेनिङ इन्स्टिट्यूट
दार्जिलिङ

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.

Due to the ongoing lockdown in response to Covid-19 visits of schools, trainees and visitors were very less. Strict protocols were followed to prevent the spread of Covid-19 into the zoo and the same was successfully achieved. Another challenge was to breed the Snow Leopards, Red Pandas successfully in this testing times. Accordingly the optimum pairing of the available breeding individuals was done lead into successful mating.



The park conducts the outreach programmes as mentioned in the zoo calendar every year. This year the park celebrated the World Environment Day, which is celebrated on 5th June 2020 with the theme, ‘**Time for Nature**’. This year, Van Mahotsav week was celebrated from 1st July to 7th July. Padmaja Naidu Himalayan Zoological Park celebrated the event on 17th July, 2020 with the plantation of indigenous trees by the park staff within the Park’s forest area. This was followed by lunch for the staff at canteen. Every year the park organises sapling plantation in and around the park, involving all the staff of the park. The international Red Panda day was celebrated globally every year on the third Saturday of September. This year the international Red Panda day was celebrated on 19th of September. Due to ongoing Covid-19 pandemic in the country it was not feasible to invite schools for the event therefore all the events were held virtually through digital and social media.

This period was utilized for the modernization and improvement of the enclosures and visitor amenities. The new work of development of two enclosures for the Snow Leopards, installation of CCTV camera, construction of a veterinary facility at CBC Topkey Dara, provision of back-lit led signages at BNHM and construction of new herbivore enclosures started after the process of e-tendering. Other than that the replacement of old polycarbonate sheet with toughened glass at pheasantry and remodelling of cyclone damaged roof truss at BNHM are worth mentioning.

Darjeeling zoo carried on six research projects titled “*Status Survey of Himalayan Goral (Nemorhaedus goral)* at Singalila National Park, Neora Valley National Park, Mahananda Wildlife Sanctuary, Senchal Wildlife Sanctuary and Kurseong Division”, “*Analysis Of Scat/ Dung/Pellets/Excreta Of Various Animals And Birds In PNHZP, CBC Dowhill, CBC Topkeydara for Presence of Various Parasites*”, “*Haematological and Biochemical values of Captive animals at PNHZ Park*”, “*Red Panda Augmentation in Singalila National Park and Neora Valley National Park*”, “*Study of Microflora and Microfauna at PNHZ Park, Darjeeling*” and “*Studies on Population and Behavioural Ecology of Red Panda in Neora Valley National Park, West Bengal*” during this period. The projects are at different stages.

Due to Covid-19 Pandemic the zoo was opened from 2nd October 2020 to 31st march 2021. For the remaining period of year it was closed. During all the time different guidelines and protocols issued by CZA and other agencies were followed in letter and spirit .

Though the zoo had been closed for the visitors, animal keepers, veterinary section staff and maintenance staffs attended their duties with all care and precaution. In order to facilitate these activities, the zoo took additional safety precaution to disinfect facilities and ensured the virus was not spread among animals. Few staffs were provided with accommodations within the zoo premises due to the long distance between their respective home and the zoo. These staffs were rigorously following social distancing guidelines among themselves and others as well.

Throughout the pandemic situation the staffs had gone to great lengths to ensure there were not any changes to the animals' core routine. The animals received their proper care they needed throughout the time of this pandemic.

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.

Five (5) hectares of land in Topkeydara block under Senchal Wildlife Sanctuary was handed over to Padmaja Naidu Himalayan Zoological Park for construction of a Conservation Breeding Centre for Snow leopard and Red Panda. The Conservation Breeding Centre for Snow leopard (*Uncia uncia*) and Red Panda (*Ailurus fulgens*) at Topkeydara was funded by the Govt.of West Bengal and Central Zoo Authority. The centre was inaugurated on 08.10.2013 by the Honourable Minister in Charge (Forest) Shri Hiten Barman and North Bengal Development Minister Shri Gautam Deb, followed by the release of a pair of Snow leopard by the two ministers.

The breeding centre currently houses 4:6 Red Pandas and 3:5 snow leopards. The breeding centre is currently staffed with two-night guards and three zoo keepers being supervised by the Estate Supervisor, PNHZP. The breeding facility is not open to visitors. The Veterinary officer and Zoo Biologist from PNHZ Park visit the facility once a week.

An area of 4.65 hectares and 1.28 hectares of forest land under Kurseong Forest Division was handed over to Padmaja Naidu Himalayan Zoological Park for construction of Satellite Zoo and staff quarters respectively. The existing infrastructure of erstwhile Deer park was renovated and new infrastructure was created to take up conservation breeding of different herbivore and pheasants. The breeding centre was inaugurated on 07.12.2011 by Shri Hiten Barman, Minister-in Charge/ Forests, Govt of west Bengal along with Shri Rohit Sharma, MLA, Kurseong. The satellite zoo was developed for the purpose of pheasantry as well as conservation breeding of herbivores and pheasants. The construction of an aviary, herbivore enclosures, staff quarters, Dy. Directors residential quarter and suspension bridge were taken up in stages.

The breeding centre has thirteen open enclosures for herbivores after partition. All the herbivore enclosures are fenced, equipped with night shelters and feeding platforms. The breeding centre has also been doing remarkably well. The Park has also come up with a 2-unit pheasantry, adjacent to the previously constructed 7-unit pheasantry. The 2-unit pheasantry was completed on 11.12.2014. The pheasantry is complete with chick rearing and artificial incubation rooms, covering an approximate area of 426.43 sq. m. Electrification of the chick rearing house has also been complete and made functional. The breeding centre also has a veterinary hospital, keeper's quarters, record keeping room and the Deputy Directors bungalow.

Currently the breeding centre houses Golden Pheasant, Lady Amherst's Pheasant, , Silver pheasant, Temminck's tragopan, Kaleej pheasant, Red Jungle Fowl, Cheer pheasant, Reeve's pheasant, Blue sheep, Himalayan Tahr, Barking Deer and Himalayan Goral.

3. Vision

To establish as a leading zoological park dedicated to conservation breeding and conservation research. Ensuring conservation of all endangered species and their eco systems through holistic approach towards captive management, education and research.

4. Mission

Assisting the National efforts for conservation of the endangered Eastern Himalayan Ecosystem by ex-situ conservation breeding, augmenting wild population and strengthening biodiversity conservation by education and research.

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. Visitors Facilities:

- Drinking Water purifier
- Rest areas/ visitors' shed at various location throughout the zoo.
- Toilet for visitors
- Special toilets and Wheelchairs for Divyangans
- Canteen
- Baby care room near entrance gate
- First-aid (at zoo hospital)
- Library
- Guided Maps, directional sinages
- Warning Sinages placed at strategic locations
- Zoo guides and Photographers
- Souvenir Shops



7. Entry Fee and Other Charges:

- Indians (Adults) 60/-
- Children below 6 years Free
- Foreigners 100/-
- Camera 10/-



8. About us

Sl. 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: 70.5 kms
		Railway Station: New Jalpaiguri Railway Station: 73.5 Kms
		Bus Stand: Tenzing Norgay Bus Stand, Siliguri: 65.5 kms
		Darjeeling bus stand: 2 kms

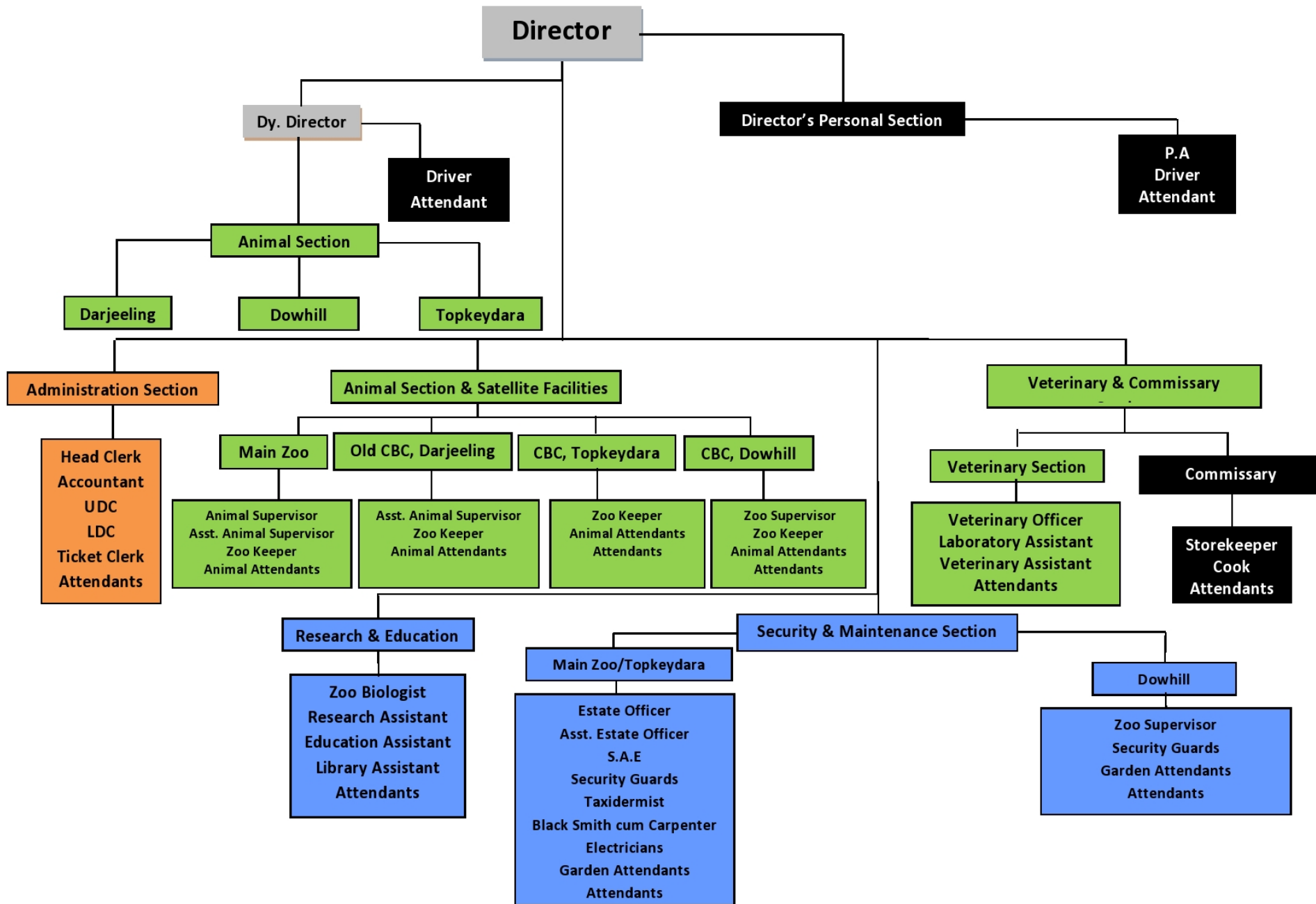
Sl. No.	Particulars	Information
11	Category of zoo	Medium
12	Area (in Hectares)	<p>Main Zoo including old breeding Centre -27.341 hectares The area as shown in the Master Layout Plan is the area within the RCC boundary wall. Apart from the area as shown in the Master Layout Plan, zoo has certain area which have staff quarters and other infrastructure which have not been calculated in the area in the Master Layout Plan</p> <p>Conservation Breeding Centre for Herbivores and Pheasants, Dow Hill, Kurseong- 4.65 hectares and 1.28 hectares for Deputy Director residence and staff quarters</p> <p>Conservation Breeding Centre for Red Panda and Snow leopard, Topkey dara, 3rd Mile- 5 hectares</p>
13	Number of Visitors (Financial Year)	<p>Adult: -</p> <p>Children: -</p> <p>Total Indian:-1,89,481</p> <p>Total Foreigners: -92</p> <p>Total Visitors: -1,89,573</p>
14	Visitors' Facilities Available in Zoo	<ul style="list-style-type: none"> i. Rain Shelter ii. Resting benches iii. Kiosks iv. Drinking water v. Toilets (Gents and ladies) vi. Child care rooms vii. Canteen viii. Photographers on payment

Sl. No.	Particulars	Information
		viii. Wheelchairs ix. Zoo guides on payment x. Information brochures xi. Stoppage point.
15	Weekly Closure Day of the Zoo	Thursday
Management Personnel of the zoo		
16	Name with designation of the Officer in-charge	Shri Rajendra Jakher, IFS (01.04.2020 to 22.07.2020) – Shri Dharmdeo Rai, IFS (22.07.2020 onwards)
	Name of the Veterinary Officer	Dr. Joy Dey
	Name of the Curator	Shri Badal Debnath, WBFS (01.04.2020 to 10.11.2020) – Shri Partha Sarathi Pramanik, WBFS (10.11.2020 onwards)
	Name of the Biologist	Dr. Barkha Subba (02.08.2020 onwards)
	Name of the Education Officer/ Assistant	Education Assistant: Ms. Pranita Gupta (1.4.2020-14.10.2020) – Education Assistant: Ms. Ruma Mandal (15.10.2020 onwards)
	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. Principal Secretary, Department of Forest, Govt. of West Bengal. ii. Member Secretary, West Bengal Zoo Authority.
18	Address of the Operator	<i>Aranya Bhavan, Block-LA, 10-A, Sector-III, Salt Lake, Kolkata-700106</i>
19	Contact details/Phone number of Operator	Department of Forest, Govt. of West Bengal: 033 2335 7751 West Bengal Zoo Authority: 033-23355010

Sl. No.	Particulars	Information
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.*

9. Organizational Chart



10. Human Resources

Manpower of the Zoo

Sl. No.	Designation	Number of Sanctioned Posts	Names of the incumbent
1	Director	01	Shri Rajendra Jakher, IFS(01.04.2020 to 22.07.2020)-Shri Dharmdeo Rai, IFS (22.07.2020 onwards)
2	Deputy Director	01	Shri Badal Debnath, WBFS(01.04.2020 to 10.11.2020)-Shri Partha Sarathi Pramanik, WBFS(10.11.2020 onwards)
3	Assistant Director cum Veterinary Officer	01	Dr. Joy Dey
4	Zoo Biologist	01	Dr.BarkhaSubba (02.08.2020 onwards)
5	Sub Assistant Engineer (Civil)	01	Mr. Saurav Sharma
6	Zoo Supervisor 1. PNHZP Darjeeling 2. Dow Hill	02	Mr. PurnaGhising (Animal Supervisor) Mr.Lalit Pradhan(Zoo Supervisor)
7	Museum Supervisor	01	
8	Estate/ Security Supervisor	01	Mr. Shiromani Syangden
9	Research Assistant	01	Miss Rohini Chettri
10	Education Assistant	01	Miss Ruma Mandal (15.10.2020 onwards)
11	Library Assistant	01	Mr. Bedan Chettri(15.10.2020 onwards)
12	Taxidermist	01	Mr. Sairus Bhaktaraj
13	Laboratory Assistant	01	Mr. Vikash Chettri
14	Veterinary Assistant	02	Mr. Pradip Kumar Singh
15	Asst. Animal Supervisor 1. PNHZ-1 2. Old CBC-1	02	Mr. Deepak Roka -
16	Asst. Estate/ Security Supervisor	02	Mr. Siddharth Chettri
17	Gate Keeper	02	-
18	Driver	02	Mr. Elvin Lepcha

19	Zookeepers 1. PNHZ Darjeeling -10 2. Old CBC-2 3. CBC Topkeydara-2 4. Dow hill- 2	16	Mr.Nipan Tamang,Mr. Ruden Lepcha Mr. Amar Chettri, Mr. Binod Kumar Subba, Mr.Bidhan Tamang, Mr. Krishna Pd Rai, Mr. Nima Tamang, Mr.Sanil Rai, Mr. Mahesh Gurung, Mr. Pranay Thapa, Mr Pawan Subba, Mr Anil Das,Mr. Umesh Rai, Mr. Aditya Tamang and Mr. Ranjit Thapa
20	Cook	02	Mr. Rakesh Sundas Mr.PrasantaMukhia
21	Head Clerk	01	Mrs Karuna Niroula
22	Accountant	01	Mrs Sangita Lama
23	PA to Director	01	Mrs MamtaSubba
24	Storekeeper	01	Mr.Ashim Gurung
25	UDC	01	Mrs Ranju Gurung
26	LDC	04	Mr. Gopal Pradhan
27	OA/TA	02	Miss PreetikaLakhandri (TA)
28	Ticket Clerk	02	Mr. Mir Tshering Tamang.. 1 (P) Mr. Amit Pradhan (C)
	Total Permanent	37	
31	Support Staff (on Contract): a) Security 1. PNHZP -20 2. Old CBC-02 3. Topkeydara-06 4. Dow hill- 04	30	16 PNHZP -11 Topkey-3 Dowhill- 3 +15+(extra 1) engaged
	b) Sanitation	10	PNHZP-03 (P) + PNHZP-05
	c) Garden attendant	10	02
	d) Attendants	14	PNHZP-02 (P) + 02
	e) Animal Attendants 1. PNHZP -10		PNHZP-11

	2. Old CBC-02 3. Topkeydara-02 4. Dow hill- 02	16	Old CBC-01 Topkey-03 Dowhill-04 (extra03 engaged)
	Total Contractual	80	
	TOTAL (Sanctioned post + contractual)	134	

11.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	Shri Aditya Tamang, Shri Dipen Gurung.	Zoo Keeper Training, East Region,	1 Day	KananPendari Zoological Garden, Bilaspur (Virtual)
2	Shri Anil Rai, Shri Binod Kumar Subba.	National Zoo Keepers Training on Captive Management of Reptiles	3 Days	Indira Gandhi Zoological Park,Vizag (Virtual)



National Zoo Keepers Training on Captive Management of Reptiles

12. Zoo Advisory Committee –

a. **Date of constitution-** 24.03.2012

Members-

Sl. No.	Name	Designation
1	Principal Chief Conservator of Forest (Wildlife) & Chief Wildlife Warden, West Bengal	Chairman
2	Member Secretary, WBZA	Convener
3	Director, Animal Husbandry & Veterinary Services	Member
4	Director, PNHZ Park, Darjeeling	Member
5	Director, Zoological Park, Alipore	Member
6	CE/EE of WBZA	Member

b. **Dates on which Meetings held during the year-** The meeting was held online on 03.12.2020

13. Health Advisory Committee–

Dates on which Meetings held during the year- The meeting of members of the Health Advisory Committee could not be conducted due to the prevailing Covid-19 pandemic.

14.Statement of income and expenditure of the Zoo

Sl. No.	Year (2020-2021)	Receipt in Rupees	Expenditure in Rupees
1	Grant-in-Aid	₹6,00,00,000	₹6,14,81,561.78
2	State Plan	₹3,01,52,420	₹2,74,47,020.30
3	Entry fee and other revenues	₹7,310,535	—
TOTAL		₹97,462,955.00	₹8,89,28,582.08

15. Daily feed Schedule of animals (2020-2021)

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 vii. other seasonal fruits like watermelon orange, grapes, cucumber viii. wild fruits, green leaves	01 pc 300 gms 200 gms 50 ml 400 ml 05 kgs 200 gms Upon availability	1 pc 200 gms 500 gms 50 ml 500 ml 4kgs 200 gms Upon availability	No fasting day observed
2	Snow Leopard (<i>Uncia uncia</i>)	i. Beef ii. Chicken ii. Mutton	2.5 kgs 2.5 kgs 2.5 kgs	2.5 kgs 2.5 kgs 2.5 kgs	Thursdays
3	Himalayan Wolf (<i>Canis lupus himalayensis</i>)	i. Beef ii. Chicken	1.5 kgs 1.5 kgs	1.5 kgs 1.5 kgs	Thursdays
4	Himalayan Tahr (<i>Hemitragus jemlachius</i>)	i. Crushed Maize ii. Gram ii. Crushed wheat v. Barley v. Salt vi. Wheat Bran vii. Pulses (Mung/Masoor soaked) iii. Molasses ix. Turmeric x. Green fodder	230 gms 65 gms 50 gms 120 gms 05 gms 130 gms 40 gms 50 gms 05 gms 08 kgs	180 gms 50 gms 40 gms 90 gms 5 gms 100 gms 30 gms - 20 gms 8 Kgs	No fasting day observed
5.	Himalayan Goral (<i>Naemorhaedus goral</i>)	i. Crushed Maize ii. Gram	130 gms 35 gms	130 gms 35 gms	No fasting day observed

		iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Pulses (Mung/Masoor soaked) iii. Molasses ix. Turmeric x. Green fodder	25 gms 50 gms 03 gms 65 gms 20 gms 50 gms 05 gms 08 kgs	25 gms 60 gms 3 gms 70 gms 20 gms - 20 gms 8 kgs	
6.	Markhor (<i>Capra falconeri</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Pulses (Moong/ masoor soaked) viii. Molasses ix. Turmeric x. Green fodder	230 gms 65 gms 50 gms 120 gms 05 gms 130 gms 40 gms 50 gms 05 gms 08 kgs	180 gms 50 gms 40 gms 90 gms 5 gms 100 gms 30 gms - 20 gms 8 kgs	No fasting day observed
7.	Barking Deer (<i>Muntiacus muntjac</i>)	i. Crushed Maize ii. Gram ii. Crushed wheat v. Barley v. Salt vi. Wheat Bran vii. Pulses (Mung, Musur soaked) iii. Molasses ix. Turmeric x. Green fodder	130 gms 35 gms 25 gms 50 gms 03 gms 65 gms 20 gms 50 gms 05 gms 08 kgs	130 gms 35 gms 25 gms 60 gms 3 gms 70 gms 20 gms - 20 gms 8 kgs	No fasting day observed
8	Blue Sheep (<i>Pseudois nayaur</i>)	i. Crushed Maize ii. Gram ii. Crushed wheat v. Barley v. Salt vi. Wheat Bran vii. Pulses (Mung, Masoor soaked)	230 gms 65 gms 50 gms 120 gms 05 gms 130 gms 40 gms 50 gms	180 gms 50 gms 40 gms 90 gms 5 gms 100 gms 30 gms -	No fasting day observed

		iii. Molasses ix. Turmeric x. Green fodder	05 gms 08 kgs	20 gms 8 Kgs	
9.	Sambar Deer (<i>Rusa unicolor</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Pulses (Mung, Masoor soaked) viii. Molasses ix. Turmeric x. Green fodder	400 gms 100 gms 70 gms 230 gms 08 gms 200 gms 60 gms 50 gms 05 gms 40 kgs	300 gms 80 gms 50 gms 180 gms 8 gms 160 gms 48 gms - 20 gms 40 kgs	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. Pulses (Moong/ masoor soaked) viii. Molasses ix. Turmeric x. Green fodder	720 gms 190 gms 130 gms 320 gms 15 gms 390 gms 130 gms 50 gms 05 gms 40 kgs	550 gms 150 gms 100 gms 250 gms 15 gms 300 gms 100 gms - 20 gms 40 kgs	
11.	Mishmi Takin (<i>Budorcas taxicolor taxicolor</i>)	i. Crushed Maize ii. Gram iii. Crushed wheat iv. Barley v. Salt vi. Wheat Bran vii. Pulses (Moong/ masoor soaked) viii. Molasses ix. Turmeric x. Green fodder	400 gms 100 gms 70 gms 230 gms 08 gms 200 gms 60 gms 50 gms 05 gms 40 kgs	300 gms 80 gms 50 gms 180 gms 8 gms 160 gms 48 gms - 20 gms 40 kgs	

12.	Royal Bengal Tiger (<i>Panthera tigris</i>)	i. Beef ii. Chicken	13 kg 13 kgs	12 kgs 12 kgs	Thursdays
13.	Common Leopard (<i>Panthera pardus</i>)	i.Beef ii.Chicken iii.Mutton	02 kgs 2.5 kgs 2.5 kgs	2 kgs 2 kgs 2 kgs	
14	Clouded Leopard (<i>Neofelis nebulosa</i>)	i.Beef ii.Chicken iii.Mutton	02 kgs 02 kgs 2 kgs	1.5kgs 1.5kgs 1.5kgs	Thursdays
15	Asiatic Black Bear (<i>Ursus thibetanus</i>)	i. Wheat chappati ii. Rice iii. Soup (beef/ mutton/ chicken) iv. Sattu balls v. Soaked, boiled and crushed chana vi. Vegetables like cabbage, potato, tomato, cucumber, raddish, carrot, turnip, peas, pumpkin, squash, tubers (locally available), maize, celery, all forms of leafy vegetables vii. Fruits like guava, apple (in less quantity), sugarcane, grapes, whole watermelon, lemon (locally available) viii. Honey ix. Milk x. Molasses xi. Boiled eggs	07 pcs 250gms 01 lts 02 pcs 250gms 01 kg 500 gms 250 ml 500 ml 250 gms 02pcs	200 gms 150 gms 1 lts 500 gms 200 gms 1kg 500 gms 50 ml 1000 ml - 1pc	
16	Jackal (<i>Canis aures</i>)	i.Beef ii.Chicken	1 kg 1kg	1 kg 1kg	Thursdays
17	Leopard Cat	i.Beef	250 gms	250 gms	Thursdays

	<i>(Prionailurus bengalensis)</i>	ii. Chicken	250 gms	250 gms	
18	Himalayan Palm Civet <i>(Paguma larvata)</i>	i. Banana ii. Apple iii. Mutton with mutton heart	200 gms 200 gms 150 gms	100 gms 100 gms 100 gms	Thursdays
19	Asian Palm Civet <i>(Prionailurus hermaphrodites)</i>	i. Banana ii. Apple iii. Mutton with mutton heart	200 gms 200 gms 150 gms	100 gms 100 gms 100 gms	Thursdays
20	Common Grey langur <i>(Semnopithecus entellus)</i>	i. Groundnuts ii. Potato/tubers iii. Green leafy vegetables, bamboo, iv. Boiled egg v. Apple vi. Banana vii. fodder leaves.	400gms 140 gms 300 gms 01pc 200 gms 200 gms	50 gms 100 gms 200 gms 1pc 100 gms 100 gms 400 gms	No fasting
21	Slow loris <i>(Nycticebus bengalensis)</i>	i. Egg ii. Banana with other seasonal fruits	01pc 150 gms	1pc 150 gms	No fasting
22	Jungle cat <i>(Felis chaus)</i>	i. Beef ii. Chicken	500 gms 500 gms	400 gms 400 gms	Thursdays

PHEASANTS

Cheer Pheasant (*Catreus wallichii*), Grey Peacock Pheasant (*Polyplectron bicalcaratum*), Kaleej Pheasant (*Lophura leucomelana*), Himalayan Monal (*Lophophorus impejanus*), Temminck's Tragopan (*Tragopan temminckii*), Red Jungle Fowl (*Gallus gallus*), Golden Pheasant (*Chrysolophus pictus*), Reeves Pheasant (*Syrnaticus reevesii*), Silver Pheasant (*Lophura nycthemea*) and Lady Amhrest (*Chrysolophus amherstia*).

Feed item	Quantity		Day of fasting
	Winter	Summer	
i. Crushed maize	10 gms	10 gms	No fasting
ii. Onion	05 gms	5gms	
iii. Garlic	05 gms	5 gms	
iv. Green & leafy vegetables (lettuce, cabbage, leaves of radish, carrots, citrus fruits, turnip, palak, raya, simraya, radish and carrot leaves kumra etc.	30 gms	30 gms	
v. Mutton heart	20 gms	20 gms	
vi. Wheat & paddy husk	30 gms	30 gms	
vii. Boiled egg with shell	1 /2 pc	1 /2 pc	
viii. Sattu Balls	10 gms	10 gms	
ix. Meal worms if possible	15 each	15 each	

EXOTIC BIRDS

Red and Blue Macaw (*Ares chloropterus*), Blue and Gold Macaw (*Ares chloropterus*), Bare Eyed Cockatoo (*Cacotua sanguinea*), Sulphur Crested Cockatoo (*Cacotua sulphurea*) African Grey parrot (*Paittacus erithacus*), Cocktaiels(*Nymphicus hollandicus*), Rose Breasted cockatoo (*Elophus roseicapilla*) and Turaco (*Tauraco*)

i. Groundnuts, soaked gram/pulses	25 gms	25 gms	No fasting
ii. Tomato (Solid)	25 gms	25 gms	
iii. Green Chilly (Solid)	05 gms	5 gms	
iv. Crushed Maize	10 gms	10 gms	
v. Green & leafy vegetables (seasonally available)	10 gms	10 gms	
vi. Apple	30 gms	30 gms	
vii. Banana	25 gms	25 gms	
viii. Kangni seeds	10 gms	10 gms	
ix. Sunflower seeds	60 gms	60 gms	
x. Meal worms if possible	15 each	15 each	

REPTILES

Species	Feed item	Quantity		Day of fasting
		Winter	Summer	
Indian Rock Python (<i>Python molurus</i>),	i. Live broiler 800 gms in 10 days	Hibernation	01 no	No fasting
	ii. Albino mice every 10 days		02 nos	
Checkered Keelback (<i>Xenochroptis piscator</i>)	Fish after every 3-4 days		250gms	No fasting
Indian Sand Boa (<i>Erynx johnii</i>), Rat Snake (<i>Ptyas mucosa</i>) Russell's Viper (<i>Daboia russelii</i>) and Himalayan Pit Viper (<i>Gloydius himalayanus</i>)	i. Day old chick every 10 days		02 nos	
	ii. Albino mice every 10 days	02 nos		

16.Vaccination Schedule of animals

SL NO	SPECIES	DISEASES VACCINATED AGAINST	NAME OF THE VACCINE AND DOSAGE/QUANTITY USED	PERIODICITY	REMARKS
1	Snow Leopard (<i>Uncia uncia</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	BiofelPCHR: 1 ml	16.12.2020-20.12.2020 (Annually)	Booster is given after 1 month
2	Common Leopard (<i>Panthera pardus</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	BiofelPCHR: 1 ml	18.12.2020 (Annually)	Booster is given after 1 month
		Canine Distemper	Purevax: 1 ml	Every 6 months	Booster given on 21 st , 42 nd day and half yearly thereafter
3	Royal Bengal Tiger (<i>Panthera tigris</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	Biofel PCHR: 1 ml	07.01.2021 (Annually)	Booster is given after 1 month
		Canine Distemper	Purevax: 1 ml	Every 6 months	Booster given on 21 st and 42 nd day and half early thereafter
4	Leopard Cat (<i>Prionailurus bengalensis</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	Biofel PCHR: 1 ml	16.12.2020-26.03.2021(Annually)	Booster is given after 1 month
		Canine Distemper	Purevax: 1 ml	Every 6 months	Booster given on 21 st and 42 nd day and half early thereafter
5	Jungle cat (<i>Felis chaus</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	BiofelPCHR: 1 ml	16.12.2020 (Annually)	Booster is given after 1 month
		Canine Distemper	Purevax: 1 ml	Every 6 months	Booster given on 21 st and 42 nd day and half early thereafter
6	Himalayan Palm Civet (<i>Paguma larvata</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	BiofelPCHR: 1 ml	16.12.2020(Annually)	Booster is given after 1 month

7	Asian Palm Civet (<i>Prionailurus hermaphrodites</i>)	Panleukopenia, Calcivirus, Herpesvirus, rabies Injection	BiofelPCHR: 1 ml	16.12.2020-22.12.2020(Annually)	Booster is given after 1 month
8	Jackal (<i>Canis aures</i>)	Rabies	RAKSHARAB	06.03.2021(Annually)	Booster is given after 1 month
		Canine Distemper Virus, Canine Parvo Virus, Canine Adenovirus Type 1, Canine Adenovirus Type 2, <i>Canine paraifluenza</i> , <i>Leptospira canicola</i> , <i>Leptospira icterohaemorrhagiae</i>	MEGAVAC – 6	Annually	Booster is given after 1 month
9	Himalayan Wolf (<i>Canis lupus himalayensis</i>)	Rabies	RAKSHARAB	06.03.2021-10.03.2021(Annually)	Booster is given after 1 month
		Canine Distemper Virus, Canine Parvo Virus, Canine Adenovirus Type 1, Canine Adenovirus Type 2, <i>Canine paraifluenza</i> , <i>Leptospira canicola</i> , <i>Leptospira icterohaemorrhagiae</i>	MEGAVAC – 6	Annually	Booster is given after 1 month

17. De-worming Schedule of animals

SL NO	SPECIES	DRUG USED	MONTH
1	PHEASANTS AND BIRDS	Piperazine Citrate Albendazole	APRIL- SEPTEMBER OCTOBER- MARCH
2	Jungle cat (<i>Felis chaus</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
3	Himalayan Palm Civet (<i>Paguma larvata</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
4	Asian Palm Civet (<i>Paradoxurus hermaphroditus</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
5	Slow loris (<i>Nycticebus bengalensis</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
6	Leopard Cat (<i>Prionailurus bengalensis</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
7	Common Grey langur (<i>Semnopithecus entellus</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER & OCTOBER- DECEMBER
8	Red Panda (<i>Ailurus fulgens</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Fenbendazole Albendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
9	Asiatic Black Bear (<i>Ursus thibetanus</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & OCTOBER- DECEMBER JANUARY – MARCH
10	Himalayan Goral (<i>Naemorhaedus goral</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
11	Himalayan Tahr (<i>Hemitragus jemlachius</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH

12	Markhor (<i>Capra falconeri</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
13	Sambar Deer (<i>Rusa unicolor</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
14	Yak (<i>Bos grunniens</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
15	Blue Sheep (<i>Pseudois nayaur</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
16	Mishmi Takin (<i>Budorcas taxicolor taxicolor</i>)	Albendazole Fenbendazole	APRIL- JUNE, JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER
17	Barking Deer (<i>Muntiacus muntjac</i>)	Fenbendazole Albendazole	APRIL- JUNE & OCTOBER- DECEMBER JULY-SEPTEMBER & JANUARY – MARCH
18	Jackal (<i>Canis aures</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER
19	Himalayan Wolf (<i>Canis lupus himalayensis</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER
20	Royal Bengal Tiger (<i>Panthera tigris tigris</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER
21	Clouded Leopard (<i>Neofelis nebulosa</i>)	Praziquantel, Pyrantel P4amoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER
22	Common Leopard (<i>Panther pardus</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE JULY-SEPTEMBER & JANUARY – MARCH OCTOBER- DECEMBER

23	Snow Leopard (<i>Uncia uncia</i>)	Praziquantel, Pyrantel Pamoate, Fenbendazole Albendazole Fenbendazole	APRIL- JUNE & JANUARY – MARCH JULY-SEPTEMBER OCTOBER- DECEMBER
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18. Disinfection Schedule

SL NO	SPECIES	TYPE OF ENCLOSURE	DISINFECTANT USED AND METHOD	FREQUENCY OF DISINFECTION
1	ALL SPECIES	OPEN	1. Virkon S: 10% Solution Sprayed	Every Two Weeks
			2. Quick Lime: Sprinkled	Every Two weeks (Herbivores only)
			3. Blow Flame: Flaming	Every Two Weeks (Herbivores only)
2	ALL SPECIES	NIGHT SHELTERS	1. Virkon S: 10% Solution Sprayed	Every Two Weeks
			2. Quick Lime: Sprinkled	Monthly (Herbivores only)
			3. Blow Flame: Flaming	Every Two Weeks
			4. Gluteraldehyde Concentrate.: 10% wash	Every day
			5. Potassium Permanganate: Foot bath	Every day
3	HERBIVORES	KEEPERS' PATHWAY	1. Sodium carbonate: 5% sprinkled	Monthly (Herbivores only)
4		ZOO ENTRANCES	1. Sodium Hypochlorite: 5% Sprayed	Every day for every entry of vehicles
			2. Potassium Permanganate: Foot bath	Every day for visitors and staffs

19. Health Check-up of employees for zoonotic diseases

Could not conduct the health check-up for the year 2020-2021 due to the prevailing Covid-19 pandemic.

20. Development Works carried out in the zoo during the year 2019-2020

Sl. No.	NAME OF WORK
1.	Camping arrangements for Red Panda augmentation programme at Gairibas Singalila National Park, Darjeeling (repair of old dilapidated quarter), for Research Scholars.
2.	Supply and installation of CCTV cameras along with its accessories around main gate area under PNHZ Park, Darjeeling during the year 2020-21.
3.	Modification of Beat No. 1 pheasantry and replacement of old polycarbonate sheet with toughened glass and netting ground and side walls of enclosure to prevent entry of rodents at PNHZ Park, Darjeeling.
4.	Reconstruction and remodelling of cyclone damaged roof truss at Bengal Natural History Museum at PNHZ park, Darjeeling
5.	Improvement and extension of Store and Kitchen at PNHZ Park, Darjeeling during 2019-2020.
6.	Construction of snow leopard (Two units) off display breeding centre at Topkey Dara, Senechal East Range under PNHZ Park, Darjeeling during 2020-21.
7.	Strengthening of zoo boundary wall by way of doing RCC at PNHZ Park, Darjeeling during 2020-2021.
8.	Repair and maintenance work done to control soil erosion at all Herbivore enclosure.
9.	Construction of Veterinary facility at CBC Topkey Dara, Senechal East Range under PNHZ Park, Darjeeling during 2020-2021.
10.	Extension of Display area at BNHM under PNHZ park, Darjeeling during 2020-21.
11.	Construction of showcases and diorama at BNHM under PNHZ park, Darjeeling during 2019-2020.
12.	Provision of backlit led signages and beautification/ compound development at BNHM under PNHZ park, Darjeeling during 2019-2020.
13.	Construction of new herbivore enclosure near the existing Barking Deer enclosure including night shelter and other facilities at PNHZ Park, Darjeeling during 2020-21.
14.	Construction of rain water harvesting storage tank at PNHZ Park, Darjeeling.

20. 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 materials regarding information on the housed animals of the park, conservation breeding programmes of the zoo, its biodiversity etc. are distributed among students along with notebooks and lunches provided by the zoo as well.

During the year 2020-2021 the education wing of the Park could not hold such public awareness programmes as before because of the national lock-down due to the prevailing Covid-19 pandemic globally, as visitors and Zoo enthusiast could not visit the Park, so the park decided to let the Zoo enthusiasts enjoy the tour around the park virtually. The virtual tour programme of Zoo started from 6th August, 2020 by uploading live videos in different social media platforms twice a day. The park had specific times to give virtual tours showing different behavioural activity of animals housed in the park so that people can watch them from the comfort of their homes.

21.Important Events and happenings

CELEBRATION OF WORLD ENVIRONMENT DAY, 2020

The World Environment Day was celebrated at the Park on 05.06.2020. The United Nations Environment Program (UNEP) annually organizes events for World Environment Day, which encourages worldwide awareness and action for the protection of the environment. It is celebrated on 5th June in over 100 countries. The theme for World Environment Day 2020 was, '**Time for Nature**', with a focus on its role in providing the essential infrastructure that supports life on Earth and human development.

The Park celebrates the event every year by organizing outreach and educational programs for local schools with competitions like poster making, essay & extempore competition etc. This year due to the Covid-19 pandemic, the Park could not invite local schools for the event. The Park instead celebrated the day by planting saplings (indigenous trees) within the Park, cleanliness drive, staff awareness meeting on COVID-19 and a quiz contest for all the staff of the Park. The aim of the program was to create awareness among the zoo staff about the environment, pressures on the ecosystem and various initiatives to help save the environment.

The program of the day was as follows:

- 11:00 am: Sapling Plantation (indigenous trees)
- 12:00 pm: Forest and Zoo Cleanliness Drive
- 2:00- 4:00 pm: Staff Awareness Meeting and Quiz Competition

Several varieties of trees were planted by the zoo staff in the zoo forest area.

VAN MAHOTSAV CELEBRATION

‘Van Mahotsav’ is an annual tree planting festival celebrated in the month of July. During this festival crores of trees are planted all over India. The beautiful tradition of Van Mahotsav was started in 1950 by Shri. K. M. Munshi, the Union Minister for Agriculture and Food with an objective to create mass awareness regarding planting of trees and conservation of forests. ‘Van Mahotsav’ is celebrated by planting trees or saplings in homes, offices, schools, colleges, etc. Despite the restrictions due to the Covid-19 pandemic, this year as always, Padmaja Naidu Himalayan Zoological Park has upheld the tradition of Van Mahotsava albeit in a low key manner observing all the norms of social distancing and sanitation.

This year, Van Mahotsav week was celebrated from 1st July to 7th July. Padmaja Naidu Himalayan Zoological Park celebrated the event on 17th July, 2020 with the plantation of indigenous trees by the park staff within the Park’s Forest area. This was followed by lunch for the staff at canteen.

INTERNATIONAL RED PANDA DAY 2020 CELEBRATION

The international Red Panda Day is celebrated globally every year on the third Saturday of September. This year the international Red Panda day was celebrated on 19th of September. However due to ongoing Covid-19 pandemic in the country it was not feasible to invite schools for the event therefore all the events were held virtually through digital and social media.

Program for Celebration of International Red Panda Day:

- 1) An online quiz was opened to students from all schools in Darjeeling Division & Kalimpong Division. More than 100 students participated in this programme. Automatic generated certificates were given to all participants who scored above 50% in the quiz.
- 2) A photography contest was conducted where participants had to upload the pictures of Red Panda with one interesting fact about them on their Facebook account while tagging the park in that picture. More than 32 participants participated in that contest. Only 3 of them were selected as winners and they received cash prize. **Hiren Khatri 1st Prize, Prabin Pradhan 2nd Prize, Tapan Khemraj Thapa 3rd Prize.**
- 3) Live videos on Red Panda about their behaviour, biology, threats, conservation etc. were posted on the parks social media for about a week from 13th September to 19th September.
- 4) Online posters and pamphlets were also made and posted on social media for promotion and educational awareness of these animals.

The aim of this event was to spread awareness among the people not only about the biology, habitat and status of the Red Panda but also the threats faced by the species and conservation measures taken up by the park, the breeding program and other measures taken worldwide to save this species.



Hiren Khatri, 1st Prize



Prabin Pradhan, 2nd Prize



Tapan Khemraj Thapa, 3rd Prize

74th INDEPENDENCE DAY CELEBRATION, 2020

Like every year the park celebrated 74th Independence Day of India on 15th August, 2020. The park staff assembled outside the Director's residence for flag hoisting and singing of national anthem. This year the national flag was hoisted by Shri. Badal Debnath, WBFS, Deputy Director, PNHZ Park at 9am. The staff was addressed by the Deputy Director after the national anthem followed by a short speech from Shri. Shiromoni Syandan, Estate officer, PNHZ Park and Shri Purna Ghising, Animal Supervisor, PNHZ Park. This program ended with the distribution of sweets to all the staff members present.



Independence Day Celebration

FAREWELL TO THE FORMER DIRECTOR SHRI RAJENDRA JAKHER, IFS

On 22nd July, 2020, the park bid farewell to Shri Rajendra Jakher, IFS and former Director PNHZ Park. Shri. Rajendra Jakher, IFS served the park as the Director from 16.08.2018 to 22.07.2020. His contribution to the park is commendable. Shri. Dharmdeo Rai, IFS took over the charge of Director, PNHZ Park from Shri. Rajendra Jhaker, IFS.



**Farewell to Director Shri Rajendra Jakher, IFS & Deputy
Director Shri Badal Debnath, WBFS**

RE-OPENING OF ZOO

PNHZ Park has reopened to visitors on the prosperous occasion of Gandhi Jayanti, 2nd October, 2020 after close to 7 months of ensuing lockdown owing to the Covid-19 spread and ensuing lockdown. On the first day of reopening, the zoo welcomed hundreds of visitors. The Park reopened with strict guidelines as set forth by West Bengal Zoo Authority.

Visitors were being checked with thermal scanners at the entrance. Security staff and supervisors ensured that visitors washed and sanitized their hands at hand washing point and passed through a screening gate at the entrance area before approaching the ticket counter. Only visitors who were not suffering from cough, cold and fever were allowed to enter inside the zoo premises. Signages have been placed at different locations to convey Covid-19 protocols to visitors. Online ticket booking facility was made available to the visitors.

A disinfection squad had been allotted to frequently sanitize railings, barricades and public amenities. Zoo staffs also had to strictly follow the timely directions issued by the Govt. with respect to Covid-19. However, all the protocols given by Govt. body have been followed strictly during reopening. The visitors and staffs were co-operative to each other and maintained all the safety protocols to prevent the spread of Covid-19.



Covid-19 Safety Protocols

VISITS OF DIGNITARIES TO PNHZ PARK AND THEIR VALUABLE COMMENTS

SL. NO.	Date of Visit	Name of the visitor	Address of visitor	Remarks
1.	04.11.2020	His Excellency Honourable Governor of West Bengal Shri Jagdeep Dhankar.	Kolkata	Upkeep of Zoological Park reflects meticulous care and attention. The time spent was indeed memorable, with staff commitment at exemplary level visible. The Director is enormously involved with the sector. Gratitude to all who are involved in the upkeep of the establishment.





Visit of His Excellency honourable Governor of West Bengal, Shri Jagdeep Dhankar

CHILDREN'S DAY CELEBRATION

Children's day in India is celebrated every year on 14th November to increase the awareness of people towards the rights, care and education of children. Padmaja Naidu Himalayan Zoological Park celebrates Children's day every year with various programs, inviting many schools and their students to share knowledge about this park and its contribution in wildlife conservation. This year due to pandemic, the park decided to take the online route for this celebration.

The park decided to hold a week-long celebration for this year that started on 8th November and ended on 13th November. The program included an online drawing competition for class III to class V and an essay writing competition for class VI to class VIII. Entries were accepted till 12th November (until 2 p.m. IST) and by 13th November, the park announced the winners of the competitions.

The winners of each competition were awarded with certificates. The participants were asked to submit their drawings and essays based on the following themes.

Event	Theme
Drawing competition	Draw an animal using your imagination
Essay writing competition	Write a short essay of 500 words on how animals are beneficial for our environment.

The event witnessed active participation. The drawings and essays were submitted to the Parks email. The entries were judged by the Deputy Director, PNHZP and Zoo Biologist, PNHZP on the following criteria:

- Creativity.
- Relevance to theme.
- Concept of wildlife and conservation.

Following are the winners of the Drawing and Essay writing competition:

Drawing Competition winners				
Sl no.	Place	Name	Class	School
1)	First	Aarav Agrawal	5 th	-
2)	Second	Souradeep Jana	3 rd	Sri Sri Academy
3)	Third	Arsh Katiyar	3 rd	Sri Sri Academy
Essay Competition winners				
Sl no.	Place	Name	Class	School
1)	First	Devamallya Das	8 th	Bethany School
2)	Second	Shreeja Das	8 th	



Aarav Agrawal, 1st Prize



Souradeep Jana, 2nd Prize



ArshKatiyar, 3rd Prize

Winners of the Drawing Competition

How Animals Are Beneficial For Our Environment

An important element which makes our country a biological hotspot is the animals. They are also a crucial part of nature, and can't be taken away from nature.

Animals are beneficial for our environment. Without them, malfunctioning of environment is obvious. They are helpful to both humans and plants. About thirty percent of forest produce has the contribution of animals, either direct or indirect. But, due to deforestation, floods and droughts, the life of animals is being threatened.

Nature is wonderfully balanced with the organisms in it. This nature exists on the interdependence between various forms of life. If there is an imbalance in the interdependence, there may be no life on earth. The good maintenance of wildlife can be done to avoid this situation as wildlife contributes to most of the interdependence of life forms. This is one of the major reasons of animals being so much

beneficial for our environment.

Secondly, most of the objects of luxury and utility are obtained from animals. A balanced diet of an ordinary human contains some articles like honey, which comes from wildlife. Meat, fur, skin, horns and ivory, which are used for luxury and fashion, are also obtained from wildlife. Wildlife also plays an important role in tourism and eco-tourism which is another major source of income for the government. If the animals fade away, the government will get a huge shock.

Thirdly, animals are one of the most important components in the food chain. This should be in balance otherwise its imbalance can be fatal. In a random chain, grass is eaten by the deer and the deer is eaten by the tiger. If, due to poaching, the tiger becomes extinct, the population of deer will increase. Then, there would be fight for food and the deer may get extinct due to starvation. On the other hand, if all of the deer are eaten by tigers, there would be fight for food between tigers and they may

also get extinct. So, humans also have a role in observing and protecting the species.

Lastly, a lot of wild animals house or act as hosts for many pathogens, which are dangerous. Thus, due to the mentioned reasons, if the animals get extinct, these pathogens would search for their new host, and humans are a good choice for them. This may lead to emergence of new diseases. A sudden disease may create confusion in humans, and, if the treatment is invented, it would be of very little use as most of the people will die due to the emergence of the new disease.

Therefore, it is very important to protect animals and wildlife. Otherwise, humans are to suffer. Animals are important for the environment in a lot of ways. We must be happy that animals are still with us and we should take proper measures to protect them.

Devamallya Das, 1st Prize

2/1/2020
 Name - Shreeja Das
 Class - 8

Essay

"How animals are helpful for our environment"

The presence of animals in our environment is very essential to maintain the balance in nature. They help the man in many ways. Animals supply heavy loads of wood, horses, dogs, sheep, to milk, bullocks help farmers in plowing, etc. Animals make the man's life easy by providing many useful products like milk, eggs, butter, wool, dairy products, wool, silk, etc. They do many jobs for humans. The animals are the unconditional companions for lonely people as they don't let them feel depressed and stressed. In many cases they even have man's life. Especially the dogs look after the houses. That's why they are part of our protection.

Animals are also used a quite part of our education. We use live or even dead animals to learn in science-related subjects. To study the function and structure of their body to understand and gain knowledge. We use animals like insects, earthworms, reptiles to study about them.

But unfortunately animals are in a verge of extinction. The artificial products of animals are also important for making huge industries, hospitals, food development and agricultural for humans. Hunting for meat, fur, poultry and leather are also factors for the extinction of animals. If we take no possible steps are taken, then they would be no longer when call

The animal species will get extinct from this world. Life should not be a plague of not using anything that comes from animals such as leather. By this we can save the many lives of animals each year. We can also help the animals by not disturbing their life and always as they are not in their natural habitat.

Animals are a necessity of our environment. If man has to survive in this planet there they are to consume the wildlife. It is a precious gift from God to this planet.

Animals life is
 Precious
 too

Shreeja Das, 2nd Prize

Winners of Essay Competition

RELEASE OF KALIJ AND RED JUNGLE FOWL PHEASANTS IN MAHANANDA WILDLIFE SANCTUARY

The release of animals back to the wild plays a substantial role in welfare of animals. On November 27th, 2020 PNHZ Park released 5 (5:0) Kalij Pheasant and 10 (5:5) Red Jungle Fowl in Mahananda Wildlife Sanctuary. The birds were released by Principal Chief Conservator of Forests, Wildlife and Chief Wildlife Warden, West Bengal Shri V. K. Yadav. Chief Conservator of Forests, Wildlife North Shri Rajendra Jakher and PNHZ Park Director Shri Dharmdeo Rai, Darjeeling, were also present during the programme.

REPUBLIC DAY CELEBRATION

The Park celebrated India's 72nd Republic Day on 26.01.2021. All staff of the Park gathered outside the Director's residence at 9am for flag hoisting. The Director, PNHZP; Assistant director cum Veterinary officer, PNHZP; Assistant Curator cum Estate officer, PNHZP and Animal Supervisor, PNHZP addressed the staff of the Park. The celebration ended with distribution of sweets to the staff.





Republic Day Celebration

OFFICE PICNIC

The Annual PNHZ Park staff picnic was held on 5th February, 2021 to celebrate the passing of another year and to welcome the next year.



PNHZP Park Staff Picnic

WORLD WILDLIFE DAY

Every year 3rd March is celebrated as World Wildlife Day to raise the awareness of issues that impact wildlife. The theme of United Nations World Wildlife Day 2021 was '**Forests and livelihoods: sustaining people and planet**'. The United Nations aims to highlight the significance of how forests give a livelihood to many communities, especially indigenous and local communities. As the impact of the global pandemic Covid-19 increased day by day, the park decided to celebrate this very day online to avoid any biohazard.

The park conducted an online poem writing competition that was divided in two different categories including two sub-categories which are summarised below:

Category 1		Category 2	
Age below 14 years		Age above 15 years	
Subcategory		Subcategory	
Nepali language	English Language	Nepali language	English Language

The theme for the poem competition was: **“Sustaining people and wildlife.”**

The entries were accepted from 27th March, 2021 to 3rd March, 2021 (Till 2 p.m. IST). 3 winners from each category were awarded a book as a prize as well as certificates.

The event witnessed active participation. The poems were submitted to the Parks e-mail. The entries were judged by the Assistant Estate Officer, PNHZP, the Research Assistant, PNHZP, the Library Assistant, PNHZP and the Education Assistant, PNHZP on the following criteria:

- Relevance to theme.
- Concept of wildlife and conservation.

Winners of the poem writing competition are as follows:

Poem Competition (Category: Age group above 14 years)				
Subcategory: English				
Sl no.	Place	Name		
1.	First	Miss. Nilanjana Thapa		
2.	Second	Mr. Bedan Chettri		

3.	Third	Mr. Abishek Pradhan		
Subcategory: Nepali				
Sl no.	Place	Name		
1.	First	Mr. Felix Lepcha		
2.	Second	Mr. Tshering Lepcha		
3.	Third	Mr. Ewald Kongchen		

Poem Competition (Category: Age group below 14 years)				
Subcategory: English				
Sl no.	Place	Name		
1.	First	Ms. Aastha Pattanaik		
2.	Second	Mr. SayyamBarida		
3.	Third	Mr. Omkar Mukhopadhyay		
Subcategory: Nepali				
Sl no.	Place	Name		
1.	First	Mr. Sai Siddhartha Tamang		



Miss. Aastha Pattanaik



Miss. Nilanjana Thapa



Mr. Bedan Chettri

WOMEN'S DAY CELEBRATION

This year the park celebrated Women's Day on March 8th, 2021. This day is symbolic of the historic journey of women around the world have taken to better their lives. It comes as a reminder that while a lot has been achieved, the journey is long, and a lot more needs to be done.

The theme for this year's International Women's Day was "Women in leadership: achieving an equal future in a COVID-19 world".

For this occasion, the park arranged various activities for the female visitors and staffs:

1. Breaking Glass pyramid with ball.
2. Tail the Deer.
3. Shoot the ball in a Basket.
4. Light 20 candles in 30 seconds.

Female visitors along with women staffs from Darjeeling Forest Division had actively taken part in the celebration.

Also, some special activities were arranged for the PNHZ Park female staffs only:

1. All female staffs wore same colour dress (colour code: Red)
2. Musical chair was arranged at the lawn in front of Directors bungalow. 3 winners from the musical chair were awarded with gift vouchers. They were:

Sl No.	Place	Name
1.	1 st Place	Mrs. Shakala Shankar
2.	2 nd Place	Mrs. Sangita Lama
3	3 rd Place	Mrs. Ranju Gurung

Chocolates were distributed to all the female visitors and staffs along the ongoing programme.

The aim of the celebration was to show our respect and gratitude not only for the female staffs of PNHZP but also the visitors.



Celebration of Women's Day

22. Seasonal special arrangements for upkeep of animals.

Winter (End of November – February):

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

Monsoon (June- September)

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

Spring (March- May)

- Enrichments for all species done-wooden platforms, aerial walkways, breeding boxes.
- Feeding enrichments
- Hanging various vegetables and fruits (whole/pieces) in the aviary for bird/pheasants for pecking.



Resting platform for Common Leopard



Dry leaves bed at Peasantry



Hanging tightly stitched jute rope for clawing and sharpening the claws



Hanging of fruits and vegetables



Water dispenser and wheat sprouts



Breeding Boxes for Red Panda

23. 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.	The project is ongoing	Red Panda Augmentation programme in Singalila National Park and Neora Valley National Park
2	Director, Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling.	April 2017 - October 2020	Status Survey of Himalayan Goral (<i>Nemorh aedus goral</i>) at Singalila National Park, Neora Valley national Park, Mahananda Wildlife Sanctuary, Senchal Wildlife Sanctuary and Kurseong Division.
3	Director, Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling.	September 2019 - July 2020	Analyses of scat/dung/pellets/excreta
4	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 December 2021.	“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.
5	Director, Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling.	The project is ongoing	Haematological and biochemical values of captive animal at PNHZ Park
6	Director, Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling	The project is ongoing	Study of Microflora and Microfauna at PNHZ Park, Darjeeling
7	Director, Padmaja Naidu Himalayan Zoological Park	Padmaja Naidu Himalayan Zoological Park, Darjeeling	The project is ongoing	“Studies on Population and Behavioural Ecology of Red Panda in Neora Valley National Park, West Bengal”

24. Conservation Breeding Programme of the Zoo

SNOW LEOPARD

- Snow Leopard *Uncia uncia* is listed as “vulnerable” on the IUCN Red List, with an estimated population of between 4,000 and 7,500 individuals remaining in the wild.
- 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 an elevation between 3000m-4600m, although they are known to go above 5,500 metres asl. in the Himalayas. Steep terrain broken by cliffs, ridges, gullies and rocky outcrops is preferred, although in certain parts like Mongolia and Tibetan 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 in the region of stupendous rock and cliff above the tree- line some 12,000 - 13,000ft (3660-3965m) asl.
- Hunting, Habitat encroachment, transportation and service corridors, anthropogenic disturbance, climate change and severe weather are the major threat to the species. Snow Leopards have been hunted out of many of the areas of the high Central Asian Mountains. 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 *in-situ 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 in the North- Western corner of Jawahar Parbat (Birch Hill) at 27°North latitude and longitude 88°East longitude on an elevation of 6900ft asl.
- Founder stock of snow leopard at PNHZ Park (1986-2015)

Sl. No	Name of the animal	Sex	International Stud book Number	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-nine snow leopard births have been recorded in the park. The table below depicts the birth at an interval of every five years and their survivability.

YEAR	SEX RATIO/TOTAL BIRTH						
	M	F	U	Total birth	M	F	Total survivability
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
2014-2019	2	1	0	3	1	0	1
Total	33	22	4	59	8	9	17

* 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 populations, 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 centres 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.

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 survivality. 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 viable 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 modelled 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 population stock 2:2 individuals were included in the captive. The captive stock in June 2014 was as follows:

Total population and their sex ratio: 11 (3:6)

- 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.
- Two males acquired from Dudley Zoo, London and Mulhouse Zoo, France in consultation with the International Stud Book Keeper.
- One of the males 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	3968000005548177	Acquired from Nurnberg Zoo, Germany on 11.10.12
6	Zima	2861	F	06.05.2010	2469	2274	Lepzig Zoo	968000005542846	Acquired from Lepzig Zoo, Germany on 06.10.13
7	Morning	3159	F	02.05.2014	2401	2862	Darjeeling	0007155A51	
8	Makalu	3140	M	17.04.2014	2826	2813	Dudley Zoo, London	956000001458313	Acquired from Dudley Zoo, London on 25.06.16
9	Namkha	3141	M	16.06.2016	1847	2887	Mulhouse Zoo, France	250228730005176	Acquired from Mulhouse Zoo, France on 01.09.16
10	Mayur	3335	M	04.03.2018	3141	2861	Darjeeling	981098102056183	
11	Unnamed	3336	F	04.03.2018	3141	2861	Darjeeling	981098102057956	

Future Work Plan:

- Regular genetic demographic and hormonal analysis of the captive stock to ensure maximum genetic variability.
- Behavioural study in captivity.
- 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.
- More exchange programmes.
- Linkage of the ex-situ conservation with in-situ conservation.

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 South-Western China at an altitude ranging 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 (2015) 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 Appendix I. Population estimated fewer than 2500 according to Red Panda network.
- 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 include 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) 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 Gairibas 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.

- Both the animals were shifted to the intermediary release facility at Gairibas 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 Gairibas (SNP, Darjeeling).
- In 2007 and 2008 two wild caught males were added to the captive stock 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 Pant 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 was added to the captive stock from Sikkim Zoo for further breeding

- Singalila National Park conducted Red Panda census on 22nd -24th March 2018. The scats collected from the census were sent to IISER, Kolkata for genetic analysis. Neora Valley National Park conducted Red Panda census from 14th -17th March 2019. The scats collected from the census have been sent to IISER, Kolkata for genetic analysis. As done for the samples from Singalila NP.
- A two-day Interstate meeting held at PNHZ Park on 28th - 29th March, 2018 recommended to release Red Pandas in the wild habitat in Singalila National Park and Neora Valley National Park.
- A draft proposal of “Red Panda Augmentation Programme in Singalila National Park and Neora Valley National Park in West Bengal” was submitted to PCCF (WL) & CWLW, West Bengal vide memo no 1101/SO19/(Vol V Part I)PRP (Release)/PNHZP/18-19 dated 12.03.2019 jointly by the CCF Wildlife (North) and Director, PNHZ Park.
- The final project proposal titled “Red Panda Augmentation in Singalila National park and Neora Valley National Park, West Bengal”, of total outlay of Rs 16,65,62,500 for a period of five years, was approved by the Office of the Deputy Inspector General of Forests (WL), Ministry of Environment, Forest and Climate Change, Wildlife Division vide memo 1-21/2019 WL dated 25.06.2019, by the PCCF & CWLW, West Bengal vide memo no C-46022/01/2019 dated 04.09.2019 and by the Central Zoo Authority vide memo no 24-7/2007-CZA(D)/1435/2019 dated 12.09.2019.
- As a part of the augmentation project, PNHZ Park conducted genetic analysis of its Red Panda by LaCones, CCMB, Hyderabad and IISER, Kolkata. On the basis of the results of the genetic analysis 2:2 Red Panda were selected for release at SNP and 2:2 Red Panda were selected for release at NVNP. The selected animals to be released at SNP have been shifted to CBC, PNHZ Park. They will be shifted to the Soft release facility at Gairibas for further acclimatization.
- The Second Red Panda Global Species Management Workshop was organised by the West Bengal Zoo Authority and hosted by PNHZ Park, Darjeeling held on April, 2019. It was attended by 11 foreign delegates including the International Stud book keeper of Red Panda & GSMP convener, Dr Angela Glatston, Rotterdam zoo and 37 delegates from 7 states in India. It was decided that PNHZ Park will get 4 Red Pandas from Australia and Europe to infuse fresh blood.
- PNHZ Park under the animal exchange programme exported 2 (1:1) “Joel” & “Shine” Red Pandas to Tier park Berlin, Germany on 05.02.2020.

Current stock of Red Panda as on 31st March 2021.

SL. NO	NAME	STUD BOOK NO.	SEX	SIRE	DAM	DT OF ACQ	DOB	TRANSPONDER NO
1	Ram	1088	M	John	Sheetal	Captive born	22.6.10	0006B82659
2	Janaki	1089	F	John	Sheetal	Captive born	22.6.10	0006B7428B
3	Rigsel	0789	F	Rahul	Lucky	31.10.11 from Sikkim Zoo	28.05.07	0006B7107E
4	Smile	12123	F	Kaijalay	Samridhi	Captive born	19.6.2012	956000002159372
5	Shifu	13175	M	Kaijalay	Rigsel	Captive born	27-6-2013	956000002147924
6	Kitchi	13176	F	Kaijalay	Rigsel	Captive born	27-6-2013	956000002145534
7	Shova	11116	F	Ram	Lucky	22.02.2014 from Sikkim Zoo	07.6.2011	956000002158277
8	Balam	15117	M	Kaijalay	Janaki	Captive born	07.6.2015	00074C5ADA
9	Prashana	15118	F	Ram	Shova	Captive born	16.6.2015	000715472D
10	Noel	15119	M	Shifu	Sheetal	Captive born	14.7.2015	-
11	Karma	10118	F	Ram	Lucky	23.11.2015 from Sikkim Zoo	3.6.2010	956000002158469
12	Angela	1794	F	Balam	Rigsel	Captive born	08.7.2017	00074D578B
13	Yeshe	1795	F	Balam	Rigsel	Captive born	08.7.2017	00075043AE
14	Pabu	1796	M	Shifu	Prashana	Captive born	16.7.2017	007152639
15	Sunita	1889	F	Shifu	Janaki	Captive born	29.6.2018	00071F3684

16	Kimbu	1890	M	Noel	Kitchi	Captive born	09.07.2018	0074C5D9E
17	Numa	1891	F	Noel	Kitchi	Captive born	09.07.2018	000715305B
18	Nikki	1892	F	Noel	Kitchi	Captive born	09.07.2018	00071565D0
19	Prasanjit	195001	M	Shifu	Prasanna	Captive born	06.06.2019	0007150AB4
20	Satvik	195002	M	Balam	Shova	Captive born	01.07.2019	00074C7316
21	Unnamed	205004	F	Karma	Pabu	Captive Born	13.07.20	
22	Unnamed	205002	F	Nikki	Ram	Captive Born	26.06.20	

Future Work Plan:

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.
- Formulate Population Management Plan/Species Survival Plan.
- Basic behavioural study on the captive Red Pandas.
- Restocking of captive Red Pandas.
- Take up advanced studies with the research organizations – Genetic studies/Germplasm banking/disease screening/hormonal and behavioural studies.
- CBC, Dowhill and CBC, Topkeydara for presence of various parasites.
- Better awareness and knowledge dissemination.
- Capacity building and training 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.

25. Animal acquisition / transfer / exchange during the year 2020-2021

A	Animals arriving in the Zoo			
	Sl. No	Species	Number (M: F)	From which Zoo
PNHZ Park did not acquire any animals from any of the zoos in the year 2020-2021				

B	Animals transferred from the Zoo			
	Sl. No	Species	Number (M: F)	Going to which Zoo
1.	Common Palm Civet (<i>Paradoxurus hermaphroditus</i>)	2:1:0	RasikBill	13.07.2020
2.	Red Jungle Fowl (<i>Gallus gallus</i>)	2:2:0	Rasik Bill	13.07.2020
3.	Red Jungle Fowl (<i>Gallus gallus</i>)	5:5:0	Mahananda Wild Life Sanctuary	27.11.2020
4.	Kalij Pheasant (<i>Lophura leucomelanos</i>)	5:0:0	Mahananda Wild Life Sanctuary	27.11.2020

26. **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	Action taken	
				Date and Place of rehabilitation in their habitat	Reasons for housing in the zoo, if not released in their habitat
01.	19.10.2020	Asiatic Black Bear (<i>Ursus thibetanus</i>)(0:1:0)	Buxa Tiger (East) Division		The cub is fine but it is too small to release back to the wild, rather it would better
02.	03.01.2021	Common Leopard (<i>Panthera pardus</i>)(0:1:0)	Balasan T.E, Darjeeling		The animal is fine but it is getting occasional treatment for its limp, so it was rather not advisable to release the animal back in the wild.
03.	27.01.2021	Common Leopard Cubs (<i>Panthera pardus</i>)(0:2:0)	Beat Officer, Bagdogra Elephant Squad Range	Both the female cubs died.	
04.	04.02.2021	Barking Deer Fawn(<i>Muntiacus muntjac</i>)(0:0:1)	Jorebunglow, South West Range.	The fawn died on 11.02.2021	

27. Annual Inventory Report of Padmaja Naidu Himalayan Zoological Park (01ST April 2020-31st March 2021)

**ANNUAL INVENTORY REPORT OF PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING
(01.04.2020-31.03.2021)**

Endangered species (Schedule I and II)																						
S. No	Animal Name	Scientific Name	Opening stock on 01.04.2020				Births			Acquisitions			Disposals			Deaths			Closing Stock on 31.3.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Birds																						
1	Pheasant Cheer	<i>Catreus wallichii</i>	2	4	0	6	0	0	1	0	0	0	0	0	0	0	1	1	2	3	0	5
2	Pheasant Grey Peacock	<i>Polyplectron bicalcaratum</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
3	Pheasant Kalij	<i>Lophura leucomelana</i>	11	2	0	13	0	0	0	0	0	5	0	0	1	0	0	6	1	0	7	
4	Pheasant Monal	<i>Lophophorus impejanus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
5	Tragopan Temminick's	<i>Tragopan temminickii</i>	8	11	0	19	0	0	5	0	0	0	0	0	0	2	0	8	14	0	22	
Total Birds			23	20	0	43	0	0	6	0	0	0	5	0	0	1	3	1	18	21	0	39
Mammals																						
1	Bear Himalayan Black	<i>Ursus thibetanus</i>	1	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	1	2	0	3
2	Cat Jungle	<i>Felis chaus</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
3	Cat Leopard	<i>Prionailurus bengalensis</i>	2	2	3	7	0	0	0	0	0	0	0	0	0	1	3	3	0	6		
4	Civet Himalayan Palm	<i>Paguma larvata</i>	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	
5	Civet Common Palm	<i>Paradoxurus hermaphrodites</i>	8	3	0	11	0	0	0	0	0	2	1	0	1	1	0	4	2	0	6	

S. No	Animal Name	Scientific Name	Opening stock on 01.04.2020				Births			Acquisitions			Disposals			Deaths			Closing Stock on 31.3.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
6	Jackal	<i>Canis aureus</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7	Langur Common	<i>Semnopithecus entellus</i>	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	7
8	Common Leopard	<i>Panther Pardus</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	2
9	Leopard Snow	<i>Uncia uncia</i>	3	8	0	11	0	0	0	0	0	0	0	0	0	2	0	0	3	6	0	9
10	Loris Slow	<i>Nycticebus bengalensis</i>	1	1	0	2	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	2
11	Markhor	<i>Capra falconeri</i>	2	3	0	5	0	0	3	0	0	0	0	0	1	1	0	0	2	4	0	6
12	Panda Red/ Lesser	<i>Ailurus fulgens fulgens</i>	8	12	0	20	0	0	4	0	0	0	0	0	0	0	2	0	8	12	2	22
13	Sheep Blue/ Bharal	<i>Pseudois nayaur</i>	7	5	0	12	2	1	2	0	0	0	0	0	2	3	0	0	7	5	0	12
14	Tahr Himalayan	<i>Hemitragus jemlachius</i>	6	7	0	13	2	0	3	0	0	0	0	0	2	1	0	0	9	6	0	15
15	Tiger Bengal	<i>Panthera tigris tigris</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
16	Wolf Tibetan	<i>Canis lupus himalayensis</i>	2	5	0	7	0	0	0	0	0	0	0	0	0	1	0	0	2	4	0	6
17	Yak Wild	<i>Bos grunniens</i>	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
18	Mishmi Takin	<i>Budorcas taxicolor taxicolor</i>	2	2	1	5	0	0	1	0	0	0	0	0	0	0	0	0	2	3	1	6
Total Mammals			54	54	4	112	4	1	14	0	1	0	2	1	0	7	10	4	53	52	3	108

Reptile/ Amphibian																						
S. No	Animal Name	Scientific Name	Opening stock on 01.04.2020				Births			Acquisitions			Disposals			Deaths			Closing Stock on 31.3.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
1	Python Indian Rock	<i>Python molurus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
2	Burmese Python	<i>Python bivittatus</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3	Indian Rat Snake	<i>Ptyas mucosa</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4	Checkered Keelback	<i>Xenochroptis piscator</i>	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
5	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
6	Himalayan Newt	<i>Tylototriton verrucosus</i>	6	7	16	29	0	0	21	0	0	0	0	0	0	0	0	0	6	7	37	50
Total Reptile/ Amphibian			9	9	16	34	0	0	21	0	0	0	0	0	1	0	0	8	9	37	54	
TOTAL ANIMALS			86	83	20	189	4	1	41	0	1	0	7	1	0	9	13	5	79	82	40	201

Other Species (Schedule III and IV)																						
S. No	Animal Name	Scientific Name	Opening stock on 01.04.2020				Births			Acquisitions			Disposals			Deaths			Closing Stock on 31.3.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
Birds																						
1	Red Jungle Fowl	<i>Gallus gallus</i>	17	18	6	41	0	0	21	0	0	0	7	7	0	0	0	2	15	18	13	46
2	Parakeet Rose Ring	<i>Psittacula krameri</i>	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Total Birds			17	18	11	46	0	0	21	0	0	0	7	7	0	0	0	2	15	18	18	51
Mammals																						
1	Deer Barking	<i>Muntiacus muntjak</i>	5	3	0	8	0	0	1	0	0	0	0	0	0	2	0	0	5	2	0	7
2	Deer Sambar	<i>Rusa unicolor</i>	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3
3	Goral	<i>Naemorhedus goral</i>	11	12	0	23	3	1	1	0	0	0	0	0	0	2	1	0	13	12	0	25
Total mammals			17	17	0	34	3	1	2	0	0	0	0	0	0	4	1	0	19	16	0	35
1																						
1	Sand Boa	<i>Eryx johnii</i>	1	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	6
2	Himalayan Pit Viper	<i>Gloydius himalayanus</i>	2	1	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	1
Total Reptile			3	1	5	9	0	0	0	0	0	0	0	0	0	2	0	0	1	1	5	7
TOTAL ANIMALS			37	36	16	89	3	1	23	0	0	0	7	7	0	6	1	2	35	35	23	93

Exotic Species																						
S. No	Animal Name	Scientific Name	Opening stock on 01.04.2020				Births			Acquisitions			Disposals			Deaths			Closing Stock on 31.3.2021			
			M	F	U	T	M	F	U	M	F	U	M	F	U	M	F	U	M	F	U	T
	Birds																					
1	Cockatiel	<i>Nymphicus hollandicus</i>	0	0	12	12	0	0	0	0	0	0	0	0	0	4	0	0	0	0	8	8
2	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
3	Sulphur Crested Cockatoo	<i>Cacotua sulphurea</i>	1	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
4	Roseate Cockatoo	<i>Elophus roseicapilla</i>	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5	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
6	Blue and Gold Macaw	<i>Ares chloropterus</i>	1	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4
7	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
8	Golden Pheasant	<i>Chrysolophus pictus</i>	10	15	0	25	0	0	12	0	0	0	0	0	0	1	0	0	11	25	0	36
9	Lady Amhrest Pheasant	<i>Chrysolophus amherstiae</i>	9	9	0	18	0	0	9	0	0	0	0	0	0	1	2	0	12	12	0	24
10	Reeves Pheasant	<i>Syrmaticus reevesii</i>	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
11	Silver Pheasant	<i>Lophura nycthemea</i>	19	18	0	37	0	0	0	0	0	0	0	0	0	0	1	0	19	17	0	36
Total exotic birds			44	54	14	112	0	0	21	0	0	0	0	0	0	7	3	0	47	66	10	123
GRAND TOTAL			167	173	50	390	7	2	85	0	1	0	14	8	0	22	17	7	161	183	73	417



DIRECTOR
 Padmaja Naidu Himalaya
 Zoological Park
 Darjeeling

28.Mortality of animals (01ST April 2020-31st March 2021)

Mortality list of Padmaja Naidu Himalayan Zoological Park from 01.04.2020 to 31.03.2021							
Sl No	Date of death	Animal	Date of birth	Age	Sex	No	Cause of Death
1	04.04.2020	Cockateil	Unknown	Adult	M	1	Due to pneumonia leading to cardio respiratory failure.
2	12.04.2020	Barking Deer (Bishal)	01.01.2015	5 years 3 months	M	1	Tentatively due to retention of urine leading to cardio respiratory failure.
3	16.04.2020	Kalij Pheasant	unknown	Adult	M	1	Due to Infighting leading to CR failure
4	27.04.2020	Snow Leopard	04.03.2018	2 years 1 month	F	1	Death may be due to asphyxiation from choking
5	29.04.2020	Leopard Cat	29.03.2020	1 month	F	1	Due to cardio respiratory failure from haemorrhagic pneumonitis
6	07.05.2020	Cockateil	Unknown	Adult	M	1	Due to infighting
7	07.05.2020	Cockateil	Unknown	Adult	M	1	Due to infighting
8	23.05.2020	Himalayan Tahr fawn	22.05.2020	Fawn	M	1	Due to starvation from illnursing by dam
9	02.06.2020	Himalayan Wolf (Akriti)	20.03.2000	20 years 2months	F	1	multi organ failure due to senility
10	03.06.2020	Cockateil	unknown	Adult	M	1	Due to bacterial diarrhoea
11	06.06.2020	Red Jungle Fowl	24.03.2020	Chick	U	1	Due to pneumonia
12	06.06.2020	Red Jungle Fowl	24.03.2020	Chick	U	1	Due to pneumonia
13	25.06.2020	Temminick's Tragopan	16.06.2010	Adult	F	1	Due to infighting
14	01.07.2020	Himalayan Tahr fawn	30.06.2020	1 day	M	1	Severe haemorrhage at cerebelleum) brain injury)
15	04.07.2020	Golden pheasant	09.06.2017	3 years	M	1	Severe pneumonia
16	07.07.2020	Blue sheep fawn	05.07.2020	1 day	F	1	Acute pneumonia complicated with ill nursing

Sl No	Date of death	Animal	Date of birth	Age	Sex	No	Cause of Death
17	07.07.2020	Temminick's Tragopan	06.02.2015	5 years	F	1	Severe cerebral haemorrhage with fracture cervical vertebral may be due to dashing
18	08.07.2020	Lady Amherst	06.03.2018	2 years	M	1	Starvation resulting from infighting injuries
19	10.07.2020	Himalayan Goral(Shivani)	04.04.2019	1 year 6 days	F	1	Cardio respiratory failure from pneumonia
20	11.07.2020	Himalayan Pit Viper	unknown	Adult	M	1	Starvation from unable to catch and eat rats due to ulcers
21	11.07.2020	Asian Plam Civet	15.06.2018	2 years 26 days	M	1	Cardio respiratory failure from acute pneumonia
22	14.07.2020	Himalayan Goral	24.05.2009	11 years 1 month 20 days	M	1	Syncope from pneumonia
23	19.07.2020	Himalayan Goral	13.10.2018	1 year 9 months 5 days	M	1	Cardio respiratory failure from acute pneumonia
24	19.07.2020	Lady Amherst	05.07.2019	1 year 14 days	F	1	Predation
25	22.07.2020	Blue sheep (Bubb)	23.07.2003	16 years 11 months 29 days	F	1	Senility
26	12.08.2020	Markhor fawn Irfan	08.05.2020	2 months 5 days	M	1	Tentatively due to Asphyxia from acute Tympanitis
27	18.08.2020	Barking Deer Blacky	30.05.2006	15 years 2 months	M	1	Multi organ failure due to old age
28	28.08.2020	Lady Amherst	16.05.2008	12 years 3 months	F	1	Hypervolumic shock from predation
29	30.08.2020	Blue Sheep fawn Boxer	06.07.2020	2 months 24 days	M	1	Aspiration pneumonia
30	17.09.2020	Yak (Ram)	17.09.1999	21 years	M	1	Due to multi organ failure related to old age
31	27.09.2020	Checkered keelback	unknown	2 years (estimated)	M	1	Maybe due to hepatitis.
32	22.10.2020	Cheer pheasant	10.07.2020	102 days	M	1	Due to Enteritis

Sl No	Date of death	Animal	Date of birth	Age	Sex	No	Cause of Death
33	02.11.2020	Red Panda cub	27.06.2020	4 months 6 days	F	1	Due to cerebral haemorrhage apparently from fall from cubbing box
34	07.11.2020	Snow Leopard (Ritu)	11.03.2004	16 years 7 months and 27	F	1	May be from cardio-respiratory failure due to senility associated with multi organ failure.
35	12.12.2020	Blue Sheep fawn Sitoshna	26.06.2020	5 months 16 days	F	1	Malnutrition due to constricted intestine complicated with acute pneumonia
36	12.12.2020	Asian Palm Civet Kavita	01.01.2020 (estimated)	10 years 9 months	F	1	May be due to infighting injuries leading to starvation
37	24.12.2020	Sulphur crested cockatoo	-	Adult	F	1	Cardio respiratory failure from hypovolumic shock due to multiple injuries
38	02.01.2021	Red Panda	27.06.2020	6 months 6 days	F	1	May be due to haemorrhagic gastro enteritis
39	15.01.2021	Himalayan Tahr Sania	01.07.2007	13 years 8 months	F	1	Pneumonia leading to cardio respiratory failure
40	31.01.2021	Common Leopard Bristy	31.12.2005	15 years and 1 month	F	1	Cardio-respiratory failure due to multi organ failure
41	11.02.2021	Markhor Rishita	08.05.2020	9 months 1 day	F	1	Due to acute Tympanitis
42	11.02.2021	Blue Sheep Mars	08.06.2012	8 years 8 months 3 days	M	1	Internal haemorrhage from toxicological or infective cause
43	24.02.2021	Cheer pheasant	01.07.2012	8 years 7 months	F	1	Due to enteritis
44	26.02.2021	Slow loris	25.02.2021	1 day	M	1	Ill nursing
45	28.03.2021	Himalayan Pit Viper	unknown	Adult	M	1	Starvation from unable to catch and eat rats
46	26.03.2021	Silver Pheasant	11.0.05.2018	2 years 10 months	F	1	Death from starvation due to serious oral injury


Dr Joy Dey

Assistant Director cum Veterinary Officer
PNHZZ Park

29. Compliance with conditions stipulated by the Central Zoo Authority

The Evaluation team comprising of Shri Rupak De, IFS (Retired) and Dr A.B. Srivastava visited PNHZ Park from 1st March to 3rd March, 2020. The evaluation team has submitted its evaluation report to CZA. The recognition of PNHZ Park as a medium zoo has been renewed up to August 19th, 2022.

30. List of free-living wild animals within the zoo premises

MAMMALS

Sl. No.	Common Name	Scientific Name
1	Golden Jackal	<i>Canis aures</i>
2	Bengal 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>
10	Yellow bellied weasel	<i>Mustela kathiah</i>

Birds

Sl. No.	Common Name	Scientific Name
1	Green Tailed Sunbird	<i>Aethopyga nipalensis</i>
2	Rufous Winged Fulvetta	<i>Alcippe castaneiceps</i>
3	Little Spider Hunter	<i>Arachnothera longirostra</i>
4	Rusty Flanked Tree Creeper	<i>Certhia nipalensis</i>
5	Common Green Magpie	<i>Cissa chinensis</i>
6	Large Billed Crow	<i>Corvus macrorhynchos</i>
7	Gray-headed Canary Flycatcher	<i>Culicicapa ceylonensis</i>
8	Grey-capped Pygmy Woodpecker	<i>Dendrocopos canicapillus</i>
9	Darjeeling Woodpecker	<i>Dendrocopos darjellensis</i>
10	Fulvous Breasted Woodpecker	<i>Dendrocopos macei</i>
11	Verditer Flycatcher	<i>Eumyias thallasina</i>
12	Snowy Browed Flycatcher	<i>Ficedula hyperythra</i>
13	Little Pied Flycatcher	<i>Ficedula westermanni</i>
14	Chestnut Crowned Laughing Thrush	<i>Garrulax erythrocephalus</i>
15	Hill Myna	<i>Gracula religiosa</i>
16	Rufous Sibia	<i>Heterophasia capiatrata</i>
17	Black Bulbul	<i>Hypsipetes leucocephalus</i>
18	Black Eagle	<i>Icinaetus malayansis</i>
19	Grey backed Shrike	<i>Lanius tephronotus</i>

20	Silver Eared Mesia	<i>Leiothrix argentauris</i>
21	Red Tailed Minla	<i>Minla ignotincta</i>
22	Chestnut Tailed Minla	<i>Minla strigula</i>
23	Chestnut Bellied Rock Thrush	<i>Monticola rufiventris</i>
24	White Tailed Robin	<i>Myiomela leucora</i>
25	Blue Whistling Thrush	<i>Myophonus caeruleus</i>
26	Large Niltava	<i>Niltava grandis</i>
27	Mountain Tailorbird	<i>Orthotomus cuculatus</i>
28	Green Backed Tit	<i>Parus monticolus</i>
29	Urasian Tree Sparrow	<i>Passer montanus</i>
30	Long Tailed Minivet	<i>Pericrocotus ethologus</i>
31	Scarlet Minivet	<i>Pericrocotus flammeus</i>
32	Tickell's Leaf Warbler	<i>Phylloscopus affinis</i>
33	Greenish Tree Warbler	<i>Phylloscopus trochiloides</i>
34	Lesser Yellownape	<i>Picus chlorolophus</i>
35	Greater Yellownape	<i>Picus flavinucha</i>
36	Alexandrine Parakeet	<i>Psittacula eupatria</i>
37	Rose Ringed Parakeet/ Green Parrot	<i>Psittacula krameri</i>
38	Black Crested Bulbul	<i>Pycnonotus flaviventris</i>
39	White Throated Fantail	<i>Rhipidura albicollis</i>
40	White Browed Fantail	<i>Rhipidura aureola</i>
41	Plumbeous Water Redstart	<i>Rhyacornis fuliginosus</i>

42	Chestnut Crowned Warbler	<i>Seicercus castaniceps</i>
43	White Tailed Nuthatch	<i>Sitta himalayensis</i>
44	Chestnut Headed Tesia	<i>Tesia castaneocoronata</i>
45	Grey Winged Black Bird	<i>Turdus bouboul</i>
46	Whiskered Yuhina	<i>Yuhina flavicollis</i>
47	Stripe throated Yuhina	<i>Yuhina gularis</i>
48	Kalij Pheasant	<i>Lophura leucomelanos</i>
49	Red Jungle Fowl	<i>Gallus gallus</i>
50	Gold-frontedChloropsis	<i>Chloropsis aurifrons</i>
51	Jerdon'sChloropsis	<i>Chloropsis cochinchinensis</i>
52	Large Niltava	<i>Niltava grandis</i>
53	Barred Cuckoo Dove	<i>Macropygia unchall</i>
54	Mountain Bulbul	<i>Ixos mccllellandii</i>
55	White throated Fantail Flycatcher	<i>Rhipidura albicollis</i>
56	Blue Headed Rock Thrush	<i>Monticola cinclorhynchus</i>

REPTILES

Sl. No.	Common Name	Scientific Name
1	The Common House Gecko	<i>Hemidactylus frenatus</i>
2	Gray's Skink	<i>Sphenomorphus indicus</i>
3	Common Skink	<i>Mabuya carinata</i>
4	Green Trinket Snake	<i>Elaphe prasina</i>
5	Himalayan Pit Viper	<i>Gloydius himalayanus</i>



Special achievement of the Zoo this year

On February 7th 2021 one fawn of Mishmi Takin was born from dam Ramona and sire Rock



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