

NEWSLETTER

**PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK
DARJEELING, WEST BENGAL**

LAST QUARTER | OCTOBER- DECEMBER | 2020



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NEWS LETTER ADDRESS

Director,

Padmaja Naidu Himalayan
Zoological Park,
Darjeeling- 734101

West Bengal, India

Tel: 0354-2254250 (Ch)
2253709 (Off), 2252522

(Fax)

E-mail:

pnhzp@yahoo.com Website:

www.pnhzp.gov.in

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From the Directors Desk...

With immense pleasure I welcome you to PNHZ Park family. This is the final publication of the quarterly newsletter for the year 2020, as the year ends let me recapitulate the year's events at zoo; the zoo reopened after 7 long months of lockdown in response to Covid-19, birth of animals, transfer and acquisition of animals from different zoos, release of Kalij and Red Jungle Fowl Pheasants in Mahananda Wildlife Sanctuary, Children's Day celebration. The developmental work in this quarter included replacement of old polycarbonate sheet with toughened glass at pheasantry, remodeling of cyclone damage roof truss at BNHM, providing arch bridge over cross drain at Natural trail at PNHZ Park, providing internal fencing below old CBC gate.

**Director
PNHZ Park
Darjeeling**

NATALITY

SL.No	Name of Animals	Date of Birth	No
1.	Himalayan Newt (<i>Tylototriton himalayanus</i>)		0:0:21
2.	Barking Deer (<i>Muntiacus muntjac</i>)	01.10.2020	0:0:1
3.	Himalayan Goral (<i>Nemorhaedus goral</i>)	15.10.2020	1:0:0
4.	Himalayan Goral (<i>Nemorhaedus goral</i>)	17.12.2020	0:1:0

MORTALITY

SL.No	Name of Animals	Date of Death	No
1.	Cheer Pheasant (<i>Catreus wallichii</i>)	22.10.2020	1:0:0
2.	Red Panda Cub (<i>Ailurus fulgens fulgens</i>)	02.11.2020	0:1:0
3.	Snow Leopard (<i>Panthera uncia</i>)	07.11.2020	0:1:0
4.	Blue Sheep fawn (<i>Pseudois nayaur</i>)	12.12.2020	0:1:0
5.	Asian Palm Civet (<i>Paradoxurus hermaphroditus</i>)	12.12.2020	0:1:0
6.	Sulphur Crested Cockatoo (<i>Cacatua sulphurea</i>)	24.12.2020	0:1:0

ACQUISITION AND TRANSFER OF ANIMALS

Date	Animals	Number of Animals	Transfer To
02.11.2020	Himalayan black bear (<i>Ursus thibetanus</i>)	0:1:0	PNHZZP
27.11.2020	Kalij Pheasant (<i>Lophura leucomelanos</i>)	5:0:0	Mahananda Wild Life Sanctuary
27.11.2020	Red Jungle Fowl (<i>Gallus gallus</i>)	5:5:0	Mahananda Wild Life Sanctuary

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 shutdown 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. Signage have been placed at different locations to convey Covid-19 protocols to visitors. Online ticket booking facility were made available to the visitors.

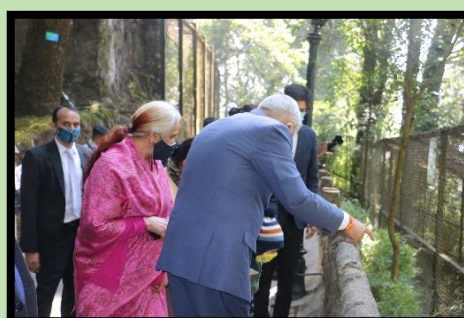
A disinfection squad had been allotted to frequently sanitize railings, barricades and public amenities. Zoo staffs also had to strictly follow the timely directions issued by the Govt. with respect to Covid-19. However, all the protocols given by Govt. body has been followed strictly during reopening.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



Visits of Dignitaries to PNHZ Park and their valuable comments

SL. NO.	Date of Visit	Name of the visitor	Address of visitor	Remarks
	04.11.2020	His excellency honorable 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.

Padmaja Naidu Himalayan Zoological Park VISITOR'S REGISTER				
Sl. No.	Date of Visit	Name of the Visitor	Address of Visitor	Remarks
	04/11/2020	His excellency honorable 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. Jagdeep Dhankar Governor



Governor's Visit

Celebration of Children's Day

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	ArshKatiyar	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 Place



Souradeep Jana, 2nd Place



ArshKatiyar, 3rd place

Winners of 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 had away, the government will get a huge shock.

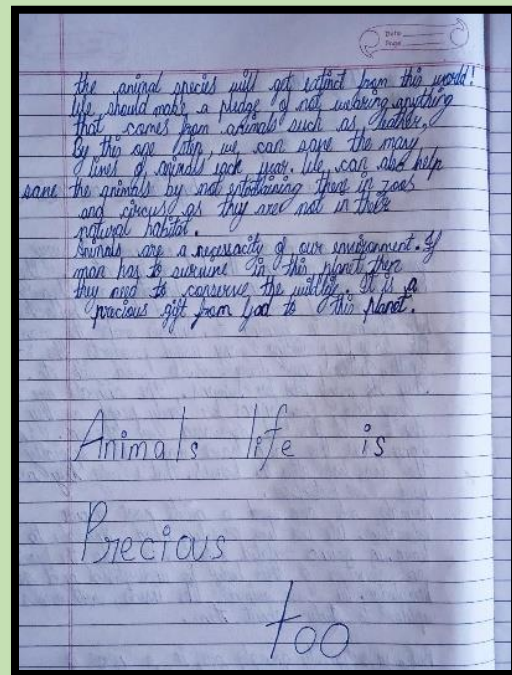
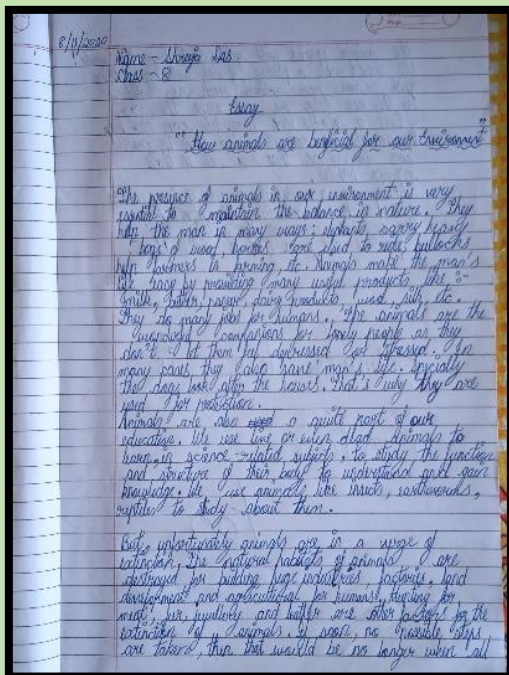
Thirdly, animals are one of the most important components in the food chain. This should be in balance otherwise its imbalance can be fatal. In a random chain, grass is eaten by the deer and the deer is eaten by the tiger. If, due to poaching, the tiger becomes extinct, the population of deer will increase. 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 Place



Shreeja Das, 2nd Place

Winners of Essay writing 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, North Rajendra Jakkhar and PNHZ Park Director Dharmdeo Rai, Darjeeling, among other officials were present during the programme.

RESEARCH WORK CARRIED OUT IN THIS QUARTER

- **Project Red Panda Augmentation in Singalila National Park:**

Singalila National Park which lies in the North-Western part in the state of West Bengal, PNHZ Park, Darjeeling is involved in the project “Red Panda Augmentation in Singalila National Park, West Bengal”, four captive bred red pandas namely Ram and Numa, Smile and Shifu which are genetically healthy, behaviorally competent would be released in the wild to augment the wild population. The selected individuals have been moved to the conservation breeding center in more naturalistic enclosures. Feeding enrichment methods were introduced to induce the foraging behavior in selected red pandas. Feeding was done at random times in random places and bamboo weight was constant throughout the study, 5 kg per individual per day. Successful mating observed in both pair of red pandas. Before mating there was clear indication of pre-mating rituals, like frequent scent marking and urination at the same spot, sniffing of the scent marked/urinated area, courtship like male observed and tracked female, screeching noise was also heard during that time.

First pair (Ram & Numa):

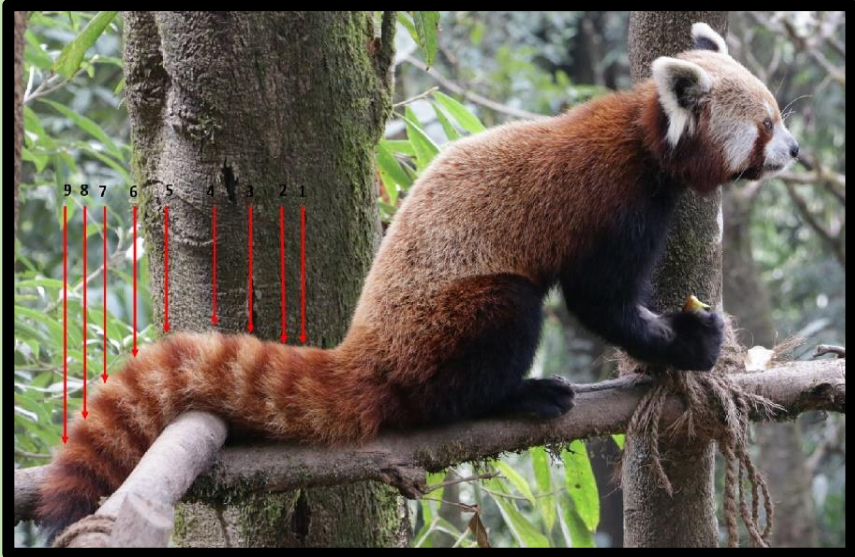


Ram (Male)

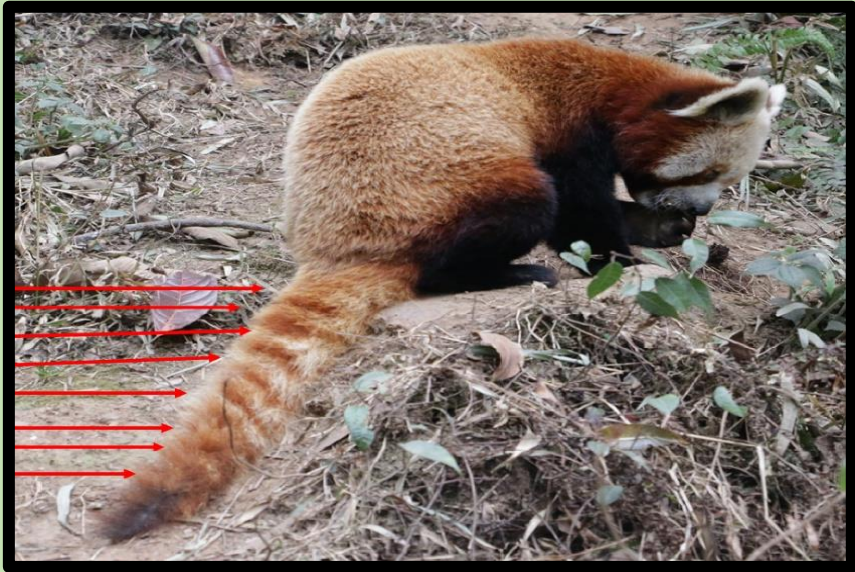


Numa(Female)

Second pair (Shifu&Smile):



Shifu(Male)



Smile (Female)

- **Project “Study on hematology and blood biochemistry of various species of captive mammals at Padmaja Naidu Himalayan Zoological Park”,(Ms. PrishkaPariyar, Project Research Assistant, PNHZP):**

Blood analysis is one of the important aspects in ex-situ conservation besides treatments, nutritional evaluation, disinfection, breeding, and rescue programs. To interpret laboratory reports to be abnormal, it is imperative to know what is normal (Shanmugam *et al.*, 2017). For this, values obtained from a sufficient number of healthy animals can be used to generate reference intervals.

Considering the scarce reports on blood and serum biochemistry profiling of wild animals, Padmaja Naidu Himalayan Zoological Park (PNHZ Park) has taken up a short-term research project entitled “Hematological and biochemical values of captive animals at PNHZ Park” that is funded by West Bengal Zoo Authority, India. A total of 34 blood samples were collected from ten individual Himalayan gorals, six Himalayan tahr, five Blue sheep, three Markhor, eight Snow leopards, one individual common leopard, and a Bengal tiger from 7th December 2020 till 13th January 2021. The animals were physically restrained and the blood was collected by venepuncture from the cephalic, saphenous, or femoral vein for herbivores and caudal vein for carnivores using a disposable syringe. The samples were placed in EDTA anticoagulant vile and clot activator vile for complete blood profiling.

The hematological parameters recorded were Total RBC and WBC count, Haemoglobin, Hematocrit, Erythrocyte sedimentation rate, and differential leucocyte count. The biochemical parameters recorded were SGPT (Serum glutamic pyruvic transaminase), SGOT (Serum glutamic oxaloacetic transaminase), alkaline phosphatase, creatinine, glucose, cholesterol, triglycerides, total protein, albumin, calcium, phosphorous, magnesium, chloride, uric acid, urea, and electrolytes (Na and K).

In addition to this, other animal species such as Mishmi Takin, Common grey langur, Himalayan wolf, Asiatic black bear, Red pandas, and leopard cats are also selected for the study. At present, more sampling is being done to generate a database on the normal reference value of haemato-biochemical parameters of selected animal species that can be referred by the animal caretakers, laboratory assistants, and other zoo personnel for diagnostic purposes.



Restraining of snow leopard for blood collection.



Blood samples placed in anticoagulant EDTA and serum separator vile for hematology and serum biochemistry profiling.

TAXIDERMY WORK DONE IN THIS QUARTER

Sl. No.	Name of Specimen	Date of Acquisition	Accession No.	Remarks
1	Barking Deer	14.10.2020	BNHM/M/202	Skinned, Tanned and under mounting process
2	Flying Squirrel	31.10.2020	BNHM/M/203	Skinned, Tanned and Mounted
3	Himalayan Palm Civet	16.12.2020	BNHM/M/204	Skinned, Tanned and under mounting process

WORK DONE IN VETERINARY SECTION

Sl. No	Date	Name of Animal	Condition and check up
1.	24.10.2020	Flying Squirrel (Male)	A male squirrel received at Veterinary Hospital of PNHZ Park. It had a sloughing of fur at forehead of about an inch, no others injuries were seen. This animal was kept at the hospital with proper enrichments and given food like apple. Though first day it didn't take anything but later it was taking food in nibbles. Being nocturnal, its activities could not be recorded. Eventually the animal died on 31 st October and PM revealed deep bite injuries on both sides of thoracic region and it died of Pneumothorax.
2.	02.11.2020	Red Panda Cub	One female red panda cub from old CBC was found on the floor of enclosure below its cubing box. It was under-weight and was hardly moving. There was sharp drop in its body temperature. All body heating methods were applied which didn't yield expected result. In between, it collapsed twice and was revived using CPR. At third time CPR was not successful and the cub expired after 3 hours struggle. PM revealed severe injury to cerebellum, which happened due to fall.
3.	05.11.2020	Lady Amherst Pheasant	It had severe injury to its head due to dashing. There was flow of blood in the eyes and wobbling gait. Cold fomentation with analgesic was given for 3 days. By next day, proptosis was reduced considerably with reduction of blood flow to the eyes. By 7 th November, 2020, the pheasant was taking its feed normally and moving around normally.
4.	09.11.2020	Tiger Cub (NBWAP)	As a member of committee to monitor health of newly born tiger cubs at NBWAP, Salugara, Veterinarian from PNHZ Park went there. Assessment of cubs were done and

			vaccination as well as was completed. Cubs were doing well.
5.	18.12.2020	Common Leopard	Received a call from NBWAP, Salugara and on the instruction of the Director, PNHZ Park; Dr. Joy Dey Veterinarian of the park with veterinary compounder Pradeep Singh went there for health check-up of Sachin, a common leopard. Animal was very reluctant to move and non-responsive to any stimuli. Somehow, the animal was taken to shelter from krall. It was having low temperature and was administered intravenous fluids and other medicines. But the animal expired next day before treatment could be proceeded. PM done by the vet and simples sent to laboratory for analysis.
6.	28.12.2020	Barking Deer Fawn	A barking deer fawn reported to be limping in its enclosure and was diagnosed to have fractured its left foreleg with palpation. It was brought to the hospital and its leg was immobilized with splint by the veterinarian. On 30 th December 2020, an X-Ray revealed proper alignment and was put on medication.

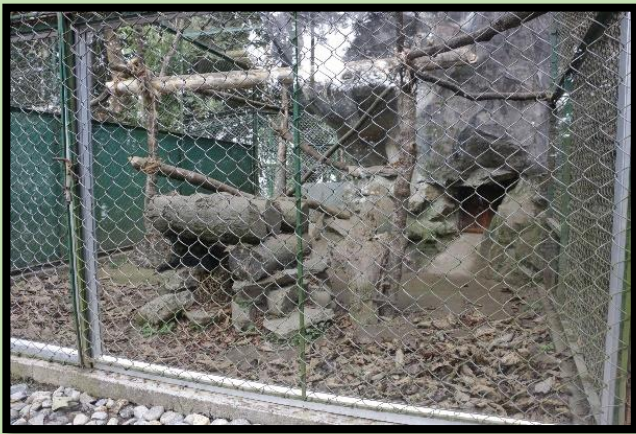
ENRICHMENT IN THIS QUARTER



New rope and tire swing in Common langur enclosure



Resting platform in common leopard enclosure



Spreading dry leaves for insulation during winters in lesser carnivore and pheasant enclosure



Stone path in-front of lesser carnivore and pheasant enclosure



Cutting of small trees in Bengal tiger enclosure

DEVELOPMENTWORK IN THIS QUARTER

