

ANNUAL REPORT 2015-2016



PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK DARJEELING (WEST BENGAL) INDIA

MAP OF DARJEELING ZOO



ANNUAL REPORT 2015-2016



PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK Darjeeling (West Bengal) India

PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING, WEST BENGAL

At A Glance

| Year of Establishment | : | 1958 |
|---|---|---|
| Area | : | Main Zoo : - 67.56 Acres Dow Hill (Conservation Breeding centre) 4.65 hectares Topkeydara(Conservation Breeding Centre)- 5 hectares |
| Category of Zoo | : | Small |
| Altitude | : | 7000 ft (2150 mts) approx |
| Temperature | : | 20°C to 26°C highest and 1°C to 5°C lowest |
| Mailing Address | : | Padmaja Naidu Himalayan Zoological Park Jawahar Parbat Darjeeling 734 101 |
| Telephone No. | : | 0354 – 2254250 (O) 2253709 (O) |
| Fax No. | : | 0354 – 2252522 |
| E-Mail | : | pnhzp@yahoo.com |
| Web | : | www.pnhzp.gov.in |
| Zoo Timings | : | 8.30 am to 4.00 pm (winter) 8:30 am to 4:30 pm (summer) |
| Closing Day | : | Thursday |
| Annual Visitors | : | Nos. of Tourists visited the Zoo & BNHM - during the year 2015-16 |
| No of Animal Species & Birds (as on 31 st March, 2013 Grant of Recognition by | : | i) 1 Species of Amphibian ii) 11 Species of Birds iii) 21 Species of Mammals iv) 4 Species of Reptile v) 12 Species of Pheasant |
| Central Zoo Authority to | | |

As medium Category Zoo valid upto 20th January 2019

Membership granted to PNHZPark by World Association of Zoos and Aquariums (WAZA) :

(Vol. IX)/367/2016 dtd 03.03.2016 :

PNHZ Park vide their No F.No. 19-20/92-CZA(325)

w.e.f 14th Sept, 2009

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ENTRY FEE FOR THE ZOO

A. MAIN ZOO

| SI. No. | Category | Entry Fee for PNHZ Park (Rs.) |
|---------|--|----------------------------------|
| 1. | Visitors from SAARC Countries | 20.00 |
| 2. | All other foreigners | 50.00 |
| 3. | Children below 6 years age | Free |
| 4. | Students (in groups of 10 and above sponsored by their respective schools) | 50% of SI. no. 1 above. |

Distance : Padmaja Naidu Himalayan Zoological Park is 85 Km from Bagdogra Airport which is served by daily flights from Delhi, Kolkata, Mumbai, Patna & Guwahati. The Railway Junction, New Jalpaiguri, is also of the same distance and is well connected with all Major centres of the country. Siliguri, the major developing city is 2¹/₂ hrs. drive by car and 6 hrs. by Toy Train.

Best time to visit : March to June and September to January

| March-June | : Pleasant Weather |
|---------------------|---------------------|
| July – September | : Rainy Season |
| September – October | : Fair Warm Climate |
| November – December | : Cold |
| January – February | : Very Cold |

Climate

From pages of flistory

- 1. 1980- 81- Granted permission by the Forest Directorate for capturing of some rare highaltitude fauna and also conducting research on them. Yak calves, Barking deer, Himalayan Black Bear, Mongoose procured from the wild. 52 white rats and 4 rabbits purchased with a view to establish an educative children's corner and also using them in the contemplated research programme. Approval of 7 collaborative research schemes submitted to the Department of Science & Technology on 16.12.80 urging financial assistance. Regular lectures by the Director of the Park for popularization of high altitude fauna and flora.Prominent trees within the park area labeled with Scientific names, to arouse interest in nature study. Construction of direct pipe-line connection from Jalaphar area under joint project of the H.M.I and the society within the zoo campus.
- 2. 1981 82--- Partial success achieved in procuring some species of the hill region. Collection of the park shows steady increase in number through departmental trapping, purchase and by way of birth. Red panda, Satyr Tragopan etc are worth mentioning. Exchange programme begins. 1 pair of Silver Pheasant, 1 pair of Bantom Pheasant. From Alipore Zoological Garden, Calcutta. Negotiations with other Zoological Gardens in India and abroad are being continued for securing exhibits on exchange basis. A mini laboratory equipped with a microscope, centrifuge machine and reagents set up. Research project "Studies on the Ecology, Reproductive Biology and Conservation of the endangered Salamander of the Eastern Himalayas, Trylototrition verrucosus" approved by the Dept. of Science and Technology.
- 3. **1982 -83**--- Received 1 pair of Silver Pheasant, 1 pair of Golden Pheasant from Alipore Zoological Garden.
- 4. **1984-85**---- Birth of two Ussuri tigers (*Panthera tigris altaica*). 1 male bon on 31.10.73 and 1 female on 8.7.82.A pair of Ussuri (Amur) Tigers received from Helsinki Zoo as a gift on 6.2.85.
- 5. **1985-86**---- The Snow Leopard Breeding Centre starts functioning with an initial pair. Procured one Royal Bengal Tiger (*Pantheratigris*) from the Forest Department as a gift on 9.5.85

- 1986-87--A pair of Snow Leopards received from Zurich Zoo, Switzerland on Ioan.A pair of Ussuri (Amu)tigers received from Helsinki Zoo, Finland
- 7. **1987-88---** The Chairperson of International Snow leopards Trust accompanied by a team of experts visited the zoo in October 1988, after getting fully satisfied with the standards of management and upkeep of the first pair at PNHZ Park, the loan of a second pair was cleared by the trust.
- 1989-90--- Tibetan wolf added to the stock, a pair received from Shimla zoo in exchange for a pair of Tragopan pheasants. Success in breeding the rare Tragopan pheasant and Kalij pheasant
- 9. **1990-91**-- Received a pair of Ussuri tiger from Whipsnade Zoological Park of the London Zoological Society on 26. 2.90. Two cubs of ussuri tiger born.
- 10.**1993-94**--- The zoo has already started a captive breeding project on Red panda in collaboration with Rotterdam zoological and Botanical gardens, the Netherlands, with an intention to reintroduce the animal in to the wild if needed.
- 11. 1994-95-- Birth of first Red Panda. 20.6.94
- 12. **1996-97--** Received a pair of Himalayan Thar from Helsinki Zoo and donated a pair of red panda to Gangtok Zoo, Tibetan wolf (one pair), Siberian Tiger (one pair) to Nainital Zoo.Conducted a training Programme for the staff of Sikkim Zoo.
- 13.1997-98- Construction of Store kitchen.
- 14.1998-99- An audio visual Himalayan Nature's Interpretation Centre set up at the zoo depicting dioramas of different Himalayan flora and fauna and their behavior and mobility in their natural habitat. Construction of an underground water storage tank. Construction of enclosures for blue sheep and clouded leopard. One building for post moterm facilities have been built up., enclosures modified by planting numerous types of shrubs, climbers and flowering plants thus giving the zoo more greenery and natural outlook. Numerous bamboo plants

including climbers have been grown in.

- 15.1999-2000- A nature Interpretation Centre was constructed for 14.50 lac and named Himalayan Nature Interpretation Centre. Old office complex was converted to a rest house of the zoo with an expenditure of 4.00 lakh. Group D staff quarter repaired. A generator of 45 kwatts purchased for supply in the zoo.
- 16.2001-2002 Birth of Red Panda and Himalayan Thar. Pair of Common Leopard given to Gangtok Zoo, And another pair to Itanagar Zoo inn exchange for 2 female Black bears, a male clouded leopard and two male slow loris. Five old and aged leopards in the zoo were exchanged with same number of younger animals of the species from the Jaldapara Rescue Centre. A pair of Barking deer brought from Gangtok Zoo. The GB Meeting on 22.2.02agreed upon restock ing of wild population of red Panda in the Singhalila National Park by the Captive Red Pandas

of Darjeeling Zoo. State wildlife Advisory Board in its meeting on 1.3.2002 cleared the Project. Hair follicles for DNA study of the Red pandas in the zoo sent to WII. Results awaited for taking further

steps like arranging radio collars. Etc. The Lebong forest of 39 acres handed over to the Forest Department for management.

17. 2002-2003 A Discovery T.V. team from U.S.A for "Jeff Corwin Experience" in Animal Planet visited the zoo to cover Red panda Breeding Programme on 16.4.2002 and similar Programmes on Snow Leopard and Red Panda shown in various National channels. The Zoological Park COordinated the first ever complete census of wild animals in Darjeeling Hills. Project Red Panda is on the threshold of achieving its ultimate objective of releasing Zoo bred Red Pandas in the Singhalila National Park .all preparations like identification of the animals, creation of intermediary release facility for soft release, taxonomic status and genetic variability study and pre-release monitoring of habitat completed.

- 18.2003-04-- Red Panda "Mini" and "Sweety" sent to Intermediary release facility on 14th November 2003.Red Panda "Neelam" and "Dolma" sent to Intermediary release facility. At gairibas on 6th November 2003. Two Grey Peacock Pheasant acquired from Alipore Zoological Garden Kolkota in lieu of 3 Khaleej Pheasant (1:2). 3 Sambhar (1:2) received from Sanjay Gandhi Zoological Park, Patna.2 Japanese Green Pheasants (1:1) and 3 silver Pheasant (1:2) were transferred to Sanjay Gandhi Zoological Park.Post – release monitoring of the released animal by radiocollaring them.
- 2004-2005- A remarkable successful breeding of the Tibetan Wolves achieved with 13 births recorded. Births of four cubs of Snow leopard. Under animal exchange three Musk deer (1:2) acquired from Nainital Zoo in lieu of two Snow leopard (1:1) and five libetan wolves (2:3). Five

Himalay an Monal (2:3) and Five

Red Jungle Fowl (2:3) acquired from Shimla Zoo in exchange of two Snow leopard (1:1) and six Tibetan w o I v e s (3:3) from PNHZ Park. One leopard cat (0:1) and four Kaleej Pheasant (2:2) received form S i k k i m z o o

and two snow leopard (1:1) and four Tibetan wolf (2:2) given to them.

20. 2006-2007 -- Birth of one red Panda, two birth of barking deer, 2 births of Sambhar, 5 births of Golden Pheasant, 8 births of lady Amherst Pheasant, 3 Births of silver Pheasant and 13 births of red Jungle fowl.2 female Royal Bengal Tiger were acquired from Khutimari, Jalpaiguri Forest Division on 19.10.2006. 2 common langurs acquired from Kolkota, Forest Department on 7.3.07. 1 male golden Pheasant and 2 female Reeves pheasant brought from Kolkota zoo on 31.10.2006.1 male and 1 female lady Amherst pheasant given to Coochbehar Forest Division.1 male and 2 female Lady Amherst Pheasant given to Kolkota Zoo on 11.11.2006 1 male and 1 female of Silver Pheasant and Golden pheasant given to Gangtok Zoo. Workshop held on "Preparation of Zoo Management Plan" on 9th & 10th November 2006. Regional workshop held on developing "master Education Plan for Zoos" on7th & 8th June 2007.

- 21.2008-2009- An area of 4.645 Ha of Dow Hill Deer park have been taken over from the Kurseong Division under Directorate of Forests, West Bengal on 25.02.2009 for establishment of Satellite Zoo under Padmaja Naidu Himalayan Zoological Park, Darjeeling, the management plan for satellite zoo is incorporated in Padmaja Naidu Himalayan Zoological Park, Darjeeling.
- 22.2009-2010- PNHZ Park was granted membership by the World Association of Zoos and Aquariums (WAZA) on 14th September, 2009 at Berne. Coming under the umbrella of "WAZA" Organisation will help and support the fulfillment of the Zoological Park's Mission and in being able to continue the Protection and Conservation of Eastern Himalayan Endangered Species. Padmaja Naidu Himalayan Zoological Park Society has been dissolved in its final Governing Body Meeting held on 3/11/2009 at Kolkata. The Park as now onwards will be registered under the Zoo Authority of West Bengal. The Bengal Natural History Museum which was under the Wildlife Division I was handed over to the Darjeeling Zoo on 7th January 2010. The construction of the museum within the zoo premises is in the process and very soon will be shifted from its original location. The museum will be further upgraded and will serve the purpose of educating and entertaining the visitors. The Zoo received three pairs of Himalayan Tahr and two pair of Blue sheep from Okinawa Kids Foundation, Okinawa Japan. This was an animal exchange after more than twenty years.

23.2010-2011- An international exchange progra Z o o, P N H Z Park , Darjeeling, as one zoo born male Red Panda was sent to A u c kland Zoo, New Zealand and one female Red Panda was brought to Darjeeling Zoo

under the Animal Exchange Programme. The digitization of the items of Bengal Natural History Museum as handed over to PNHZ Park on 7th January, 2010 was done, by photographing each item and also providing information of the items thus making it easier to preserve, access and share in form of a book. Closed Circuit Television was installed at different locations of the park to monitor the presence and activities odf people foor enhanced security purposes and to keep areas under constant survellience and also at the Conservation Breeding Centre for documenting the Snow leopards, upgradation of visitors facilities etc. Different enrichment activities for Asiatic Black bear (Ursus thibetanus) was done. The tree at the peripheral areas/display areas of the Park was labeled for the convinence of the visitors, students, researchers etc. with name plates which includesscientific name, local name and family. Conturing of the Zoo and Dow Hill area has been done indictiong landforms and elevation, hydrography, transportation, vegetation boundaries, urban areas, buildings and a variety of other features which represents a fantastic response for educators as well. The site consisting of 5 hectares of land at Topkedara for construction of off Display Conservation Breeding Centre for Snow leopard (Uncia uncia) and Red Panda (Ailurus fulgens fulgens) was handed over to Padmaja Naidu Himalayan Zoological Park. A visitor's survey was conducted about planning to start a special educative facility that included guided tour of the zoo by zoo volunteers.

- 24.2011-2012- Padmaja Naidu Himalayan Zoological Park received 2:3 Temminck's Tragopan (*Tragopan temminckii*) and 1:3 Satyr Tragopan (*Tragopan satyra*) 0n 02.08.2011 from Paradise Wildlife Par, United Kingdom. Inaguration of Satellite facility at Dow Hill, Kurseong on 07.12.2011 by Shri Hiten Barman Hon'ble Minister in charge Department of Forest, Govt. of West Bengal and Dr. Rohit Sharma Hon'ble MLA of Kurseong Constituency along with other dignitaries and Forest Officials.
- 25.2012-2013 Acquisition of Temminck's Tragopan, Satyr Tragopan, one female snow leopard (0:1), Retirement of Store Keeper Mr. Nirmal Bhujel on 28.02.2013. Genetic analysis of captive stock of Red Panda and Snow leopard. Completion of Conservation Breeding Centre for

Red panda and Snow Leopard at Topkey dara. Closed Circuit television in enclosures of Temminck's Tragopan and Clouded leopard. Completion of seven unit pheasant at Dowhill Pheasant breeding center at Dowhill, Kurseong.

- 26.2013-2014 Acquisition of 0:2 Snow leopard from Lodz Zoo, Germany, Exchange programme with Pt. Govind Ballabh Pant High altitude Zoo, Nainital, Alipore Zoological Gardens, Kolkota, Rajkot Zoo, Gujarat, Himalayan Zoological Park, Sikkim, Mini Zoo, Jhargram and National Zoological park, Delhi. Completion of a Short term Research Project on "Study of Snow leopard" funded by Central Zoo Authority. A new offdisplay Conservation Breeding Centre for Snow leopard (Uncia uncia) and Red Panda (Ailurus fulgens) at Topkedara funded by the Govt.of West Bengal and Central Zoo Authority, MoEF was inaugurated on 08.10.2013 by the Honorable Minister in Charge (Forest) Shri. Hiten Barman along with North Bengal Development Minister Shri. Gautam Deb. The inauguration was followed up by the release of a pair of Snow leopard (Uncia uncia) by the two ministers.
- 27.2014-2015: Construction of 2 unit pheasantry at the Conservation Breeding Centre for Pheasants and Herbivores at Dow Hill, Kurseong, Reptile house. Facilities like water tank, Research room, quarters for the staffs with adequate facilities modification of night shelters as breeding dens, etc. Participation in the 35th Annual meeting of the Conservation Breeding Specialist Group (CBSG from 30th October-2nd November 2014) and the 69th WAZA Annual Conference and technical Congress from 2nd -6th November 2014) hosted by Central Zoo Authority. PNHZP recognized and honoured for exceptional hard work in conservation breeding of endangered Himalayan species with the Earth's Hero Award. Approval of three research projects by the West Bengal Zoo Authority. Transfer of 1:1 Red Panda to Pt. Govind Ballabh Pant High Altitude Zoo, Nainital for initiating Conservation Breeding of the species. Acquisition of 1:0 Snow leopard from Jhilava Zoo, Czech Republic. Exchange programme with Assam State Zoo cum Botanical Garden, Assam, and Pt. Govind Ballabh Pant High Altitude Zoo, Nainital.

28.2015-2016: The Park organized "Zoo Keeper's

Training Programme" for both North and South Bengal Zoos, Rescue centers and Deer Park's under West Bengal Zoo Authority from 22nd to 26th June 2015, followed by zoo keeper's of PNHZ Park who participated the Zoo keeper's Training Programme organized by Alipore. Zoo from 21st to 23rd September 2015. New site selection and construction of two more enclosures for the snow leopard and red panda at the Conservation breeding centre for Snow leopard and Red Panda at Topkedara, 3rd Mile. Zoo Evaluation for Recognition by Central Zoo Authority, MoEF & CC. GOI. The parks along with the breeding centres were evaluated on 26th and 27th November 2015. The park was granted Recognition by Central Zoo Authority to PNHZ Park vide their No F.No. 19-20/92-CZA (325) (Vol. IX)/367/2016 dtd 03.03.2016 as Medium Category Zoo valid upto20th January 2019.

The Park completed two short term research projects "Studies on biology, breeding behavior and aviary practices for improved performance of captive Himalayan pheasants" and "Red Panda Nutrition- an Approach towards Integration" funded by Central Zoo Authority. Initiated a Research project on "Studies on Population and Behavioural Ecology of Red Panda 9Ailurus fulgens) in Singalila National Park and Neora Valley National Park, West Bengal, India with special reference to Conservation"funded by West Bengal Zoo Authority. The Research & Education of the Park through a collaborative work with CCMB, Hyderabad published a paper on "Molecular sex identification of Red panda (Ailurus fulgens) suitable for non invasive genetic studies- Arun Kumar, Bhupen Roka, Upashna Rai, P. Anuradha Reddy. The paper has been published in the European Journal of Wildlife Research. ISSN1612-4642 DOI 10.1007/s 10344-015-0928-2.

NAME OF THE DIRECTORS HOLDING CHARGE OF PNHZ PARK

| SI. | NAME | FROM | то |
|-----|-----------------------|------------|------------|
| 1 | Sri D K Dey | 14/08/1958 | 01/08/1978 |
| 2 | Sri J Sammaddar | 02/08/1978 | 15/10/1978 |
| 3 | Dr A K Putatunda | 16/10/1978 | 09/01/1980 |
| 4 | Dr R K Lahiri | 10/01/1980 | 08/07/1984 |
| 5 | Sri A B Chowdhury IFS | 09/07/1984 | 10/09/1984 |
| 6 | Sri C Chatterjee IAS | 11/09/1984 | 07/11/1984 |
| 7 | Sri G Balagopal IAS | 08/11/1984 | 01/02/1985 |
| 8 | Dr R K Lahiri | 01/02/1985 | 25/06/1987 |
| 9 | Sri D P Patra IAS | 25/06/1987 | 07/12/1987 |
| 10 | Sri V Rishi IFS | 07/12/1987 | 27/04/1992 |
| 11 | Sri N C Bahuguna IFS | 27/04/1992 | 25/07/1994 |
| 12 | Sri Gopal Krishna IAS | 25/07/1994 | 02/09/1994 |
| 13 | Sri N C Bahuguna IFS | 02/09/1994 | 19/12/1995 |
| 14 | Sri S Dhaundyal IFS | 19/12/1995 | 07/02/1996 |
| 15 | Sri N C Bahuguna IFS | 07/02/1996 | 16/08/1998 |
| 16 | Sri D Biswas IFS | 17/08/1998 | 03/08/2000 |
| 17 | Dr B R Sharma IFS | 10/08/2000 | 06/04/2004 |
| 18 | Sri S Dhaundyal IFS | 06/04/2004 | 20/02/2006 |
| 19 | Sri B R Shewa WBFS | 10/02/2006 | 13/02/2006 |
| 20 | Sri A K Jha IFS | 13/02/2006 | 30/07/2010 |
| 21 | Sri J.B. Chettri WBFS | 30/07/2010 | 31/08/2010 |
| 22 | Sri A.K. Jha IFS | 31/08/2010 | 15/01/2015 |
| 23 | Sri. P. Chand IFS | 15/01/2015 | Till Date |

CHAPTER-1

1.1. INTRODUCTION

The Padmaja Naidu Himalayan Zoological Park Darjeeling formerly known as Himalayan Zoological Park, Darjeeling was established on 14th August, 1958. The Park is located at an altitude of 7000 ft (2150m) in Jawahar Parbat (Birch Hill), Darjeeling (West Bengal), India. 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. The Zoological Park is eminently suitable for housing and breeding of the animals from foot hills to the alpine zone as this is the optimal altitudinal zone for the purpose.

Though categorized as a small Zoo, it is one of the leading zoos of the world in terms of the objectives and its conservation vision. Padmaja Naidu Himalayan Zoological Park, (P.N.H.Z.P) also popularly known as Darjeeling Zoo, can also rightfully boast of being the only Zoo in South East Asia with one of the most successful conservation breeding programme of highly endangered Snow Leopard and Red Panda. This is the only Zoo in the world to breed the endangered Himalayan Wolf in captivity.

Today, the Zoo has a stable and genetically healthy population of Red Pandas and has released three Zoo bred Red Pandas back to the wild, more specifically in the Singallila National Park, Darjeeling, which is the natural habitat of Red Panda, holding a small Red Panda population. This is a major conservation step of Darjeeling Zoo, to supplement the dwindling population of Red Pandas in the wild with the captive stock.

This report further elaborates upon all the events of the zoo carried out in an effort to implement its objectives during the year 2014-15.

1.1.2 MISSION STATEMENT

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

1.2. OBJECTIVES

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.

1.3. THE GOVERNING BODY

The Padmaja Naidu Himalayan Zoological Park, Darjeeling, was under the administrative control of the Department of Forests, Govt. of West Bengal and was converted into a Registered Society in January 1972 under the West Bengal Societies Registration Act. The Memorandum of Association and Regulations of the Society were altered during the year 2002-2003 which the Registrar, Firm Societies and Non-trading Corporation, West Bengal gave its acceptance to the same on 09.08.2002 vide his No. S/482 dated 09.8.2002. Again later on the Park was handed over to the West Bengal Zoo Authority a Society under administrative control of the Deptt. of Forests, Govt. of West Bengal Order No. 3842/1(13)-For/FR/O/11M-7/2002 dated 14th Sept, 2010 vide Deptt. of Forests Govt. of West Bengal Order No. 3841/1(13)-For/FR/O/11M-27/2002 dated 14th Sept., 2010. Under the West Bengal Zoo Authority, the Governing Body, consist of the following members -

- 1. The Chief Secretary to the Govt. of West Bengal
- 2. Addl. Chief Secretary to the Govt. of West Bengal Dept. of Forest
- 3. Secretary to the Govt. of West Bengal, Dept of Finance
- 4. The Principal Chief Conservator of Forests, West Bengal
- 5. The Principal Chief Conservator of Forests (Wildlife & Biodiversity) and CWLW, W.B.
- 6. Member Secretary, Central Zoo Authority
- 7. Member Secretary, Zoo Authority West Bengal
- 8. Director, Animal Husbandary & Vet, Services, W.B.
- 9. Director, Padmaja Naidu Himalayan Zoological Park
- 10. Director, Zoological Gardens, Alipore, Kolkota
- 11. Chairman, Sri Sankar Dhar, People's for Animals, Alipurduar
- 12. Chairman, Sri Nantu Paul, Siliguri Municipal Corporation
- 13. President, Sri Mihir Chakraborty, All Backward Class Relief & Development Mission

Chairman Vice- Chairman Member Member Member

Member Member Member Member Member Member

The establishment of the Zoological Park is headed by one full time Director in the rank of Conservator of Forests. The Director, as the Principal Executive Officer of the Park is responsible for the day to day management and administration of the affairs of the Park under the general direction and guidance of the Governing Body and the Chairman. For the better control and co-ordination among different sections and works in the Zoological Park a separate section known as "Director's Personal Section" has been created and housed in the main administrative building. The Section is headed by the PA to the Director and assisted by one driver and one orderly peon. Management of the conference room/auditorium, visitor's rooms, rest house, zoo vehicle, telephones, mobile printer, scanner, Laptop, digital camera, video camera, still camera, LCD projector, Slide projector, Overhead projector, TV/VCR, Fax machine and Photo copier, computer networks etc. are other responsibilities of the sections.

CHAPTER-2

2.1. ADMINISTRATIVE SECTION

It is housed on the top floor of the administrative building next to the Director's Personal Section and is headed by the Head Clerk. The section has been further divided into two sections namely Account Section with one Accountant, one Clerk Typist, one Ticket Clerk and one Office Peon and the Establishment Section with one UDC and one LDC. The entire establishment section of the Zoological Park of 58 personnel is organized into 5 different wings and ten different sections. The total staff strength as on 31.3.2016 is stated below.

ESTABLISHMENT (As on 31.3.2016)

| SI. No. | Designation | Sanctioned Strength | Existing Strength | Vacancy | |
|------------|---------------------------------------|------------------------|----------------------|---------|-------------|
| 1. | Director | 1 | 1 | 0 | |
| 2. | Dy. Director | 1 | 1 | 0 | |
| 3. | Asst. Director-Cum-Veterinary Officer | 1 | 1 | 0 | |
| 4. | Zoo Biologist | 1 | 1 | 0 | outsourcing |
| 5. | Head Clerk | 1 | 1 | 0 | outooutoing |
| 6. | Accountant | 1 | 1 | 0 | |
| 7. | PA to Director | 1 | 1 | 0 | |
| 8. | Store keeper | 1 | 1 | 0 | |
| 9. | UDC | 2 | 1 | 1 | |
| 10. | LDC | 4 | 4 | 0 | |
| 11. | Ticket Clerk | 2 | 1 | 1 | |
| 12. | Zoo Supervisor | 2 | 1 | 1 | |
| 13. | Museum Supervisor | 1 | 1 | 0 | outsourcing |
| 14. | Estate Supervisor | 1 | 1 | 0 | 5 |
| 15. | Research Assistant | 1 | 1 | 0 | outsourcing |
| 16. | Education Assistant | 1 | 1 | 0 | outsourcing |
| 17. | Library Assistant | 1 | 1 | 0 | outsourcing |
| 18. | Taxidermist | 1 | 1 | 0 | outsourcing |
| 19. | Laboratory Assistant | 1 | 1 | 0 | J |
| 20. | Veterinary Assistant | 2 | 1 | 1 | |
| 21. | Asst. Zoo Supervisor | 2 | 1 | 1 | |
| 22. | Asst. Estate Supervisor | 2 | 0 | 2 | |
| 23. | Gate keeper | 2 | 1 | 1 | |
| 24. | Driver | 2 | 0 | 2 | |
| 25. | Zoo Keeper | 16 | 9 | 7 | |
| 26. | Cook | 2 | 0 | 2 | |
| 27. | Animal Attendant | 16 | 13 | 3 | |
| 28. | Garden Attendant | 14 | 5 | 9 | |
| 29. | Sanitary Attendant | 10 | 5 | 5 | |
| 30. | Security Personnel | 13 | 9 | 21 | |
| 31 | Black Smith cum carpenter | 1 | 1 | 0 | |
| 32 | Forester | 1 | 0 | 1 | Dying post |
| 33 | Veterinary Compounder | 1 | 1 | 0 | Dying post |
| 34 | Clerk Typist | 1 | 1 | 0 | Dying post |
| 35 | Forest Guard | 4 | 2 | 2 | Dying post |
| 36 | Mali | 4 | 2 | 2 | Dying post |
| 37 | Darwan | 2 | 1 | 1 | Dying post |
| 38 | Office peon | 1 | 1 | 0 | Dying post |
| 39 | Orderly peon | 2 | 1 | 1 | Dying post |
| 40 | Sweeper | 5 | 5 | 0 | Dying post |
| | Total - | | | | |

ACCOUNTS

This subsection is responsible for all matters pertaining to revenue and expenditure. As the Zoological Park is a joint venture of Govt. of India and Govt. of West Bengal, the Park is receiving maintenance budget from the Ministry of Environment and Forests, Govt. of India and Deptt. of Forests, Govt. of West Bengal. The Park is still receiving some maintenance funds from the Deptt. of School Education, Govt. of West Bengal, though the same has been very irregular.

<u>Receipts & Expenditure of the Zoological Park (Society)</u> <u>during the Year 2015-16</u>

| SI. | | Receip | ts in Rs | Expendit | ture in Rs |
|------------|---|--|--------------|----------------|--|
| Sl. No. | Source of Fund | Non-plan | Plan | Non-plan | Plan |
| 1 | Dept Deptt. of Forests Govt. of West Bengal | 7,73,99,000.00 | 20,00,000.00 | 77, 399,000.00 | 20,00,000.00 |
| 2 | Zoo Authority of West Bengal undeunder Admn Control of Deptt. of Forests, GOWB | - | | | 5.62,000.00 |
| 3 | Central Zoo Authority, Govt. of India | - | 5.62,000.00 | | |
| 4 | Ministry of environment & Forests, Govt. of India | | | | |
| 5 | Gate fee Collection a. Zoo Ticket b. Zoo Camera c. Animal Adoption d. Guest House e. Souvenir Shop f. Fees from rental stalls | 1,12,10,850 61,5560 1,50,000 10150 14379 121200 | | | 1,12,10,850 61,5560 1,50,000 10150 14379 121200 |
| | TOTAL | | | | |
| | <u>GRAND TOTAL – Rs. (Receipt)</u> | | | | |
| | | | | | |
| | | | | | |

ANIMAL SECTION

Ex-situ conservation breeding of targeted endangered animal species is the primary objective of the Padmaja Naidu Himalayan Zoological Park. The Zoo has done excellent works with planned conservation breeding of some of the highly endangered animal species of the Himalayas like Red Panda and Himalayan Wolf.

Breeding was observed in the year 2015-16 in respect of Grey Peacock Pheasant, Kalij Pheasant, Temminck's Tragopan, Asian Palm Civet, Markhor, Blue Sheep, Himalayan Tahr,Red Panda and Himalayan Wolf.

Death was also not uncommon. In the year 20115-16 **deaths** were recorded 25in mammals, **22** in pheasants and **9** in Reptiles. There has been considerable improvement in infant mortality of both mammals and pheasants due to constant medical supervision and Zoo keeper alertness.

2.3 DETAILS OF BIRTHS, DEATHS, ADDITION & DEDUCTION OF ANIMAL THROUGH EXCHANGE PROGRAMME.

BIRTHS OF MAMMALS / PHEASANTS AT PNH7 PARK DAR IFFLING

| | BIRTHS OF MAMMALS / PHEASANTS AT PNHZ PARK, DARJEELING | | | | | | |
|------------|--|-----------|--------|-----------------------|--|--|--|
| SI. No. | Name of the Animal | Male | Female | Unknown | | | |
| Mam | mals | | | | | | |
| 1 | Asian Palm Civet | 0 | 0 | 3 | | | |
| 2 | Markhor | 1 | 1 | 0 | | | |
| 3 | Blue Sheep | 2 | 0 | 0 | | | |
| 4 | Himalayan Tahr | 1 | 0 | 1 | | | |
| 5 | Red Panda | 3 | 1 | 0 | | | |
| 6 | Himalayan Wolf | 0 | 0 | 1 | | | |
| Pheas | sants | | | | | | |
| 1 | Grey Peacock Pheasant | 0 | 0 | 1 | | | |
| 2 | Kalij Pheasant | 0 | 0 | 3 | | | |
| 3 | Temminck's Tragopan | 0 | 0 | 8 | | | |
| 4 | Silver Pheasant | 0 | 0 | 1 | | | |
| 5 | Reeve's Pheasant | 0 | 0 | 3 | | | |
| 6 | Red Jungle Fowl | 0 | 0 | 21 | | | |
| 2 | Constant State State State | - make to | | and the second second | | | |

| DEATH OF MAMMALS / PHEASANTS/REPTILESAT PNHZ PARK, DARJEELING | | | | | | |
|---|--------------------|-----|--------|--|------------|--|
| SI. No. | Name of the Animal | Sex | Number | Cause of Death | Date | |
| Mam | mals | | | | | |
| 1 | Red Panda | М | 1 | Due to cardiac arrest due to excessive formation of gas | 11.04.2015 | |
| 2 | Red panda | М | 1 | Death may be due to cardiac arrest due to old age and deteriorating health condition due to paralytic hind quarters. | 19.04.2015 | |
| 3 | Himalayan Wolf | F | 1 | Death may be due to cardiac arrest due to old age with severe damage of the kidney of both side. | 29.04.2015 | |
| 4 | Himalayan Tahr | F | 1 | Death may be due to difficulty in parturition due to old age | 21.05.2015 | |
| 5 | Markhor | F | 1 | Death may be due to Dystocia due to old age. | 23.05.2015 | |
| 6 | Himalayan Wolf | М | 1 | Death may be due to respiratory failure due to old age | 23.06.2015 | |
| 7 | Snow Leopard | М | 1 | Death may be due to multi organ failure possibly due to cancerous nodule formation in the vital organs. | 26.05.2015 | |
| 8 | Snow leopard | М | 1 | Death may be due to respiratory failure due to emaciated lungs due to old age. | 29.05.2015 | |
| 9 | Blue Sheep | F | 1 | Death may be due to cardiac arrest probably due to shock | 26.07.2015 | |
| 10 | Himalayan Tahr | F | 1 | Death may be due to indigestion, gas formation due to the fur ball of gunny bag threads present in large amount in the stomach. | 31.07.2015 | |
| 11 | Snow leopard | F | 1 | Death may be due to water accumulation in the pericardial sac of the heart as well as hemorrhagic lungs causing respiratory distress leading to death. (Confirmatory diagnosis attached as Annexure I) | 14.09.2015 | |
| 12 | Markhor | Μ | 1 | Death may be due to water accumulation in the pericardial sac and congestion of the lungs. Accumulation of water also seen in the abdominal cavity. | 25.09.2015 | |
| 13 | Markhor | F | 1 | Death may be due to fluid accumulation in the lungs, heart (pericardial sac0 as well as in the abdominal cavity. | 06.10.2015 | |

| | DEATH OF MAMMALS / PHEASANTS/REPTILESAT PNHZ PARK, DARJEELING | | | | | | |
|------------|---|-----|--------|--|------------|--|--|
| SI. No. | Name of the Animal | Sex | Number | Cause of Death | Date | | |
| Mam | mals | | | | | | |
| 14 | Blue Sheep | М | 1 | Death may be due to injury in the neck and chest region resulting in hemorrhagic lungs causing asphyxia and death. | 12.10.2015 | | |
| 15 | Jungle cat | М | 1 | Death may be due to internal bleeding in the anal rectum lining swelling and infection in the anal passage. | 25.10.2015 | | |
| 16 | Himalayan Palm Civet | М | 1 | Death may be due to old age with slightly affected liver and lungs. | 02.01.2016 | | |
| 17 | Himalayan Wolf | F | 1 | Death may be due to dashing in the left side of the body causing excessive bleeding in the thoracic cavity, abdominal cavity with heart emaciated causing death. | 22.01.2016 | | |
| 18 | Jungle cat | F | 1 | Death may be due to hypothermia as indicated by the shrinkage of lungs which was pale in some region | 23.01.2016 | | |
| 19 | Snow leopard | М | 1 | Death may be due to injury in the chest region causing internal hemorrhagic I in the lungs causing asphyxia and death. | 01.02.2016 | | |
| 20 | Himalayan Wolf | М | 1 | Death may be due to chronic and resistant skin infection which led to secondary infection of lungs causing death | 29.03.2016 | | |
| 21 | Himalayan Goral | М | 1 | Death may be due to acute pneumonia with excessive gas formation causing cardiac arrest. | 22.06.2015 | | |
| 22 | Himalayan Goral | М | 1 | Death may be due to old age as per physical parameters heart congestion off depleted respiratory rate due to hemorrhagic lungs. | 31.07.2015 | | |
| 23 | Himalayan Goral | F | 1 | Death may be due to acute gastritis with probability of toxicity causing gas formation. | 03.08.2015 | | |
| 24 | Barking deer | U | 1 | Death may be due to injury to the chest region affecting the lungs and heart | 12.09.2015 | | |
| 25 | Barking deer | М | 1 | Death may be due to infighting | 02.11.2015 | | |

| 27Reeve's PheasantU1Death may be due to ill nursing10.06.20128Silver PheasantF1Death may be due to damage in vertebrae during flight15.06.20129Reeve's PheasantU1Death may be due to ill nursing25.06.20130Reeve's PheasantU1Death may be due to ill nursing28.06.20131Lady AmherstF1Death may be due to ill nursing28.06.20132Lady AmherstF1Death may be due to ill nursing25.09.20133Lady AmherstF1Death may be due to ilign in the offormation in the lobes of the liver enlargement mostly due to formation in the lobes of the liver enlargement mostly due to formation in the lobes of the liver enlargement mostly due to formation in the lobes of the liver bleeding seen.23.04.20134Red Jungle FowlF1Death may be due to injury in the chest region as internal bleeding seen.23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing24.06.20137Temminck's tragopanU1Ill nursing20.02.0138Chick of Temminck's tragopanU1Ill nursing20.02.0139Chick of Temminck's tragopanU1Ill nursing20.02.0141Grey Peacock PheasantF1Predato attack90.08.20142Temminck's tragopan <td< th=""><th colspan="7">DEATH OF MAMMALS / PHEASANTS/REPTILESAT PNHZ PARK, DARJEELING</th></td<> | DEATH OF MAMMALS / PHEASANTS/REPTILESAT PNHZ PARK, DARJEELING | | | | | | |
|---|---|------------------------------|-----|--------|---|------------|--|
| PheesantsImage: Constraint of the sector of the | | Name of the Animal | Sex | Number | Cause of Death | Date | |
| 26Reeve's PheasantF1bleeding and injury at the thoracic region02.04.201 region27Reeve's PheasantU1Death may be due to ill nursing vertebrae during flight10.06.20128Silver PheasantF1Death may be due to damage in vertebrae during flight15.06.20129Reeve's PheasantU11Death may be due to ill nursing 25.06.20125.06.20130Reeve's PheasantU11Death may be due to ill nursing 25.06.20125.06.20131Lady AmherstF11Death may be due to ill nursing enlargement mostly due to formation in the lobes of the liver enlargement mostly due to if and the lobes of the liver enlargement mostly due to bleeding seen.25.09.20133Lady AmherstF11Death may be due to inlighting with chest region as internal bleeding seen.26.09.20134Red Jungle FowlF11Death may be due to infighting with chest region as internal bleeding seen.23.04.20135Chick of Temminck's tragopanU11Ill nursing05.06.20136Chick of Temminck's tragopanU11Ill nursing23.04.20137Temminck's tragopanU11Ill nursing23.04.20138Chick of Temminck's tragopanU11Ill nursing26.06.20139Chick of Temminck's tragopanU11Ill nursing26.06.20139Chick of Temminck's tragopanU11Ill nursing | | sants | | | | | |
| 28Silver PheasantF1Death may be due to damage in vertebrae during flight15.06.20129Reeve's PheasantU1Death may be due to ill nursing25.06.20130Reeve's PheasantU1Death may be due to ill nursing28.06.20131Lady AmherstF1Death may be due to ill nursing25.09.20132Lady AmherstF1Death may be due to iver enlargement mostly due to formation inthe lobes of the liver of the liver25.09.20133Lady AmherstF1Death may be due to injury in the chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing26.02.0137Temminck's tragopanU1Ill nursing23.06.20138Chick of Temminck's tragopanU1Ill nursing26.06.20139Chick of Temminck's tragopanU1Ill nursing26.06.20141Grey Peacock PheasantF1Death may be due to injury in the chest region as in the chest region as actual actual | 26 | Reeve's Pheasant | F | 1 | bleeding and injury at the thoracic | 02.04.2015 | |
| 28Silver PneasantF1vertebrae during flight15.06.20129Reeve's PheasantU1Death may be due to ill nursing25.06.20130Reeve's PheasantU1Death may be due to ill nursing28.06.20131Lady AmherstF1Death may be due to cardiac arrest01.07.20132Lady AmherstF1Death may be due to liver enlargement mostly due to liver of the liver25.09.20133Lady AmherstM1Death may be due to injury in the chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanF1Death may be due to cardiac arrest23.06.20137Temminck's tragopanU1Ill nursing24.06.20138Chick of Temminck's tragopanU1Ill nursing26.09.20139Chick of Temminck's tragopanU1Predator attack09.08.20141Grey Peacock PheasantF1Predator attack09.08.20142Temminck's tragopanM1Predator attack09.08.20143Kalij PheasantF1Death may be due to fluid accumulatio | 27 | Reeve's Pheasant | U | 1 | Death may be due to ill nursing | 10.06.2015 | |
| 30Reeve's PheasantU1Death may be due to ill nursing28.06.20131Lady AmherstF1Death may be due to cardiac arrest01.07.20132Lady AmherstF1Death may be due to liver enlargement mostly due to formation in the lobes of the liver25.09.20133Lady AmherstM1Death may be due to injury in the obeest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20138Chick of Temminck's tragopanU1Ill nursing08.06.20139Chick of Temminck's tragopanU1Ill nursing24.06.20139Chick of Temminck's tragopanU1Ill nursing26.09.20139Chick of Temminck's tragopanU1Ill nursing26.06.20139Chick of Temminck's tragopanU1Ill nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantF1Death may be due to fluid accumulation in the pericardia areast and abdominal region and neck region as internal bleeding seen in the thoraci and abdominal region and ack region as internal bleeding seen in the thoraci and abdominal region and ack region as internal bleeding seen in the thoraci and abdominal region and ack region as internal bleeding seen in the thora | 28 | Silver Pheasant | F | 1 | | 15.06.2015 | |
| 31Lady AmherstF1Death may be due to cardiac arrest01.07.20132Lady AmherstF1Death may be due to isor enlargement mostly due to formation in the lobes of the liver enlargement mostly due to formation in the lobes of the liver bleeding seen.25.09.20133Lady AmherstM1Death may be due to injury in the chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing08.06.20137Temminck's tragopanU1Ill nursing24.06.20138Chick of Temminck's tragopanU1Ill nursing24.06.20139Chick of Temminck's tragopanU1Ill nursing26.09.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantF1Death may be due to fuid accumulation in the pericardial sac leading to ardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region.28.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 29 | Reeve's Pheasant | U | 1 | Death may be due to ill nursing | 25.06.2015 | |
| 32Lady AmherstF1Death may be due to liver enlargement mostly due to formation in the lobes of the liver25.09.20133Lady AmherstM1Death may be due to injury in the chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing05.06.20137Temminck's tragopanU1Ill nursing26.09.20138Chick of Temminck's tragopanU1Ill nursing05.06.20139Chick of Temminck's tragopanU1Ill nursing26.06.20140Grey Peacock PheasantF1Death may be due to cardiac arrest23.04.20141Grey Peacock PheasantF1Predator attack09.08.20142Temminck's tragopanM1Predator attack09.08.20143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic28.03.20144Red Jungle FowlU1Death may be due to ill nursing28.03.20145Red Jungle FowlU1Death may be due to ill nursing20.03.20145Red Jungle FowlU1Death may be due to ill nursing20.03.201 | 30 | Reeve's Pheasant | U | 1 | Death may be due to ill nursing | 28.06.2015 | |
| 32Lady AmherstF1enlargement mostly due to formation in the lobes of the liver25.09.20133Lady AmherstM1Death may be due to injury in the chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing08.06.20137Temminck's tragopanF1Death may be due to cardiac arrest23.04.20138Chick of Temminck's tragopanU1Ill nursing08.06.20139Chick of Temminck's tragopanU1Ill nursing24.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sacc leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to fluid accumulation in the pericardial sacc leading to cardiac arrest28.03.20144Red Jungle FowlU1Death may be due to Ill nursing30.03.20145Red Jungle FowlU1Death may be due to Ill nursing30.03.20146Red Jungle FowlU1Death may be due to Ill nursing30.03.201 <td>31</td> <td>Lady Amherst</td> <td>F</td> <td>1</td> <td>Death may be due to cardiac arrest</td> <td>01.07.2015</td> | 31 | Lady Amherst | F | 1 | Death may be due to cardiac arrest | 01.07.2015 | |
| 33Lady AmherstM1chest region as internal bleeding seen.26.09.20134Red Jungle FowlF1Death may be due to infighting with damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing08.06.20137Temminck's tragopanF1Death may be due to cardiac arrest23.04.20138Chick of Temminck's tragopanF1Death may be due to cardiac arrest23.06.20139Chick of Temminck's tragopanU1Ill nursing24.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sacc leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the cheat region and neck region as internal bleeding seen in the thoracici and abdominal region.30.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 32 | Lady Amherst | F | 1 | enlargement mostly due to | 25.09.2015 | |
| 34Red Jungle PowrF1damage to right side of the body23.04.20135Chick of Temminck's tragopanU1Ill nursing05.06.20136Chick of Temminck's tragopanU1Ill nursing08.06.20137Temminck's tragopanF1Death may be due to cardiac arrest23.06.20138Chick of Temminck's tragopanU1Ill nursing24.06.20139Chick of Temminck's tragopanU1Ill nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic arrest28.03.20144Red Jungle FowlU1Death may be due to Ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 33 | Lady Amherst | Μ | 1 | chest region as internal | 26.09.2015 | |
| 36Chick of Temminck's tragopanU1III nursing08.06.20137Temminck's tragopanF1Death may be due to cardiac arrest23.06.20138Chick of Temminck's tragopanU1III nursing24.06.20139Chick of Temminck's tragopanU1III nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to III nursing30.03.20145Red Jungle FowlU1Death may be due to iII nursing30.03.201 | 34 | Red Jungle Fowl | F | 1 | | 23.04.2015 | |
| 37Temminck's tragopanF1Death may be due to cardiac arrest23.06.20138Chick of Temminck's tragopanU1III nursing24.06.20139Chick of Temminck's tragopanU1III nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.30.03.20144Red Jungle FowlU1Death may be due to III nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 35 | Chick of Temminck's tragopan | U | 1 | III nursing | 05.06.2015 | |
| 38Chick of Temminck's tragopanU1III nursing24.06.20139Chick of Temminck's tragopanU1III nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 36 | Chick of Temminck's tragopan | U | 1 | III nursing | 08.06.2015 | |
| 39Chick of Temminck's tragopanU1III nursing26.06.20140Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sace leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 37 | Temminck's tragopan | F | 1 | Death may be due to cardiac arrest | 23.06.2015 | |
| 40Grey Peacock PheasantF1Predator attack09.08.20141Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.88.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 38 | Chick of Temminck's tragopan | U | 1 | III nursing | 24.06.2015 | |
| 41Grey Peacock PheasantM1Predator attack09.08.20142Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to ill nursing 30.03.20130.03.20145Red Jungle FowlU1Death may be due to ill nursing and abdominal region.30.03.201 | 39 | Chick of Temminck's tragopan | U | 1 | III nursing | 26.06.2015 | |
| 42Temminck's tragopanM1Death may be due to fluid accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to ill nursing30.03.20145Red Jungle FowlU1Death may be due to ill nursing30.03.201 | 40 | Grey Peacock Pheasant | F | 1 | Predator attack | 09.08.2015 | |
| 42Temminck's tragopanM1accumulation in the pericardial sac leading to cardiac arrest30.09.0143Kalij PheasantF1Death may be due to injury in the chest region and neck region as internal bleeding seen in the thoracic and abdominal region.28.03.20144Red Jungle FowlU1Death may be due to Ill nursing 30.03.20130.03.20145Red Jungle FowlU1Death may be due to ill nursing series30.03.201 | 41 | Grey Peacock Pheasant | М | 1 | Predator attack | 09.08.2015 | |
| 43 Kalij Pheasant F 1 the chest region and neck region as internal bleeding seen in the thoracic and abdominal region. 28.03.201 44 Red Jungle Fowl U 1 Death may be due to III nursing 30.03.201 45 Red Jungle Fowl U 1 Death may be due to ill nursing 30.03.201 | 42 | Temminck's tragopan | М | 1 | accumulation in the pericardial sac | 30.09.015 | |
| 45 Red Jungle Fowl U 1 Death may be due to ill nursing 30.03.201 | 43 | Kalij Pheasant | F | 1 | the chest region and neck region as internal bleeding seen in the thoracic | 28.03.2016 | |
| | 44 | Red Jungle Fowl | U | 1 | Death may be due to III nursing | 30.03.2016 | |
| 46Golden PheasantF1Death may be due to infighting30.3.201 | 45 | Red Jungle Fowl | U | 1 | Death may be due to ill nursing | 30.03.2016 | |
| | 46 | Golden Pheasant | F | 1 | Death may be due to infighting | 30.3.2016 | |

| | DEATH OF MAMMALS / PHEASANTS/REPTILESAT PNHZ PARK, DARJEELING | | | | | | |
|------------|---|-----|--------|---|------------|--|--|
| SI. No. | Name of the Animal | Sex | Number | Cause of Death | Date | | |
| Pheas | sants | | | | | | |
| 47 | Reeve's Pheasant | Μ | 1 | Death may be due to damaged liver and lungs condition developed due to the tumor mass at the back and also a case of old age | 28.03.2016 | | |
| Repti | iles | | | | | | |
| 48 | Star Tortoise | U | 1 | Death may be due to old age | 12.04.2015 | | |
| 49 | Star Tortoise | U | 1 | Death may be due to old age | 18.04.2015 | | |
| 50 | Star Tortoise | U | 1 | Death may be due to old age | 11.05.2015 | | |
| 51 | Star Tortoise | U | 2 | Death may be due to old age | 22.05.2015 | | |
| 52 | Indian Sand Boa | F | 1 | Death may be due to Hypothermia | 23.05.2015 | | |
| 53 | Star Tortoise | U | 1 | Death may be due to old age | 12.06.2015 | | |
| 54 | Star Tortoise | U | 1 | Death may be due to old age | 14.06.2015 | | |
| 55 | Star Tortoise | U | 1 | Death may be due to old age | 25.06.2015 | | |
| 56 | Star Tortoise | U | 1 | Death may be due to old age | 28.06.2015 | | |

VETERINARY SECTION

The veterinary hospital is housed in the ground floor of the hospital building. The hospital is equipped with almost all the equipments required for the up keeping of the health and maintenance of the animals in the zoo. The section is headed by Veterinary Officer who is assisted by a Compounder and a laboratory technician. The treatment cards, outpatient register, In patient register, Post mortem register and report, Laboratory analysis register, Stock register of medicines/instrument etc. are maintained and updated.

Animal health care receives utmost attention in the zoo. The Veterinary Doctor assisted by one Compounder and Laboratory technician carries out day to day checkups and treatments of the animals. The section

Daily diet of meat like beef, mutton, chicken along with dry ration etc. is inspected by the Veterinary Officer for their quality and quantity on daily basis.

All the enclosures, cages are thoroughly washed with disinfectants early in the morning before the zoo is opened for the day to the visitors. Filtered water and blowers are provided to every animal. As part of the animal health care, deworming, testing of stool, urine and blood samples of all the animals are done on regular basis

No major illness or outbreaks witnessed by the park during this annual. Regular deworming and vaccination was done. The section also assisted the Forest Department in conducting post moterm of Common Leopard and Barking Deer.

| Date | Species | Sex | Area | Remark |
|------------|------------------------------------|-----|-----------------------------|--|
| 11.01.2016 | Himalayan eagle (Aquila sp) | U | Teesta range | Treated and released back |
| 18.02.2016 | Common leopard (Panther pardus) | М | Takdah cantonment clud area | Treated and released back to the wild |
| 23.02.2016 | Common leopard (Panther pardus) | М | Sonada | Treated at the rescue centre at Sonada but the animal died on 03.03.2016 |

2.6.1. Dis-infection programme

- 1) As a part of daily programme, the concrete and the wooden floor are cleaned with Savlon. Feeding and watering trough are cleaned with Kmn04 @ 2gm/ltr. Water. The drains are cleaned thoroughly by the Zoo Keepers. The daily Dis-infection works are completed before the Zoo opens for the public in the morning.
- 2) As annual programme the floors, rods and wires were sterilized with blow torch, once during rainy season. The walls of the cages were white washed and the rods, wires were painted.

Due attention is also given for ensuring a good health care to the Zoo staffs. All the Zoo keepers and other field staffs who are in direct and indirect contact with the zoo animals are vaccinated against Rabies and Tetanus to control communicable diseases.

2.7.OTHER IMPORTANT SECTIONS

2.7.1.COMMISSARY SECTION

The Zoological Park has a well established Commissary section with dry ration store, meat house, modern Kitchen using LPG. The Commissary Section weighs all diet materials they receive in the weighing machine. Meat and fruits if required early the next day are kept in deep freezer. All dry rations are stored in polydrums. All

the animal diets are acquired by annual tenders. All the diet items are checked for quality and quantity by the Veterinary Officer before issuing the same to the animal section on proper challan. One full time storekeeper and one trained cook constitute the establishment of the Commissary section.

2.7.2 Education

The Education Section is headed by the Scientific Officer. The section is in-charge of regular school visits, visit by the college and university students including forest officials. The section is in-charge of publication of pamphlets and books concerning zoo issues and also updating the sinages of different kinds.

The Park celebrated World Environment Day on 5th June 2015. The theme for this year was "*Greening the Blue*". Different primary schools from Darjeeling were invited to participate in the programme to promote awareness on the importance of trees and biodiversity and its impact on the environment and our lives in general. Sit and Draw competition and Quiz competition was organised for the students from Grade I-IV. Four school with a total of twenty two students participated in the programme.

The winner of the sit and Draw competition were as follows:

- First prize : Sneha Tamang, Municipal Girls Primary School.
- Second Prize : Alishan Rai, Municipal Girls Primary School
- Third Prize : Ankit Sharma, Swami Vivekananda Primary School

Swami Vivekananda Primary School was declared winner in Inter Primary School Quiz Competition.

| SI. No. | Date | Name of School/Training Institute /Colleges/Universities | Number of Students | Number of Teachers | Educational Incentives |
|------------|--------------|---|-----------------------|-----------------------|----------------------------------|
| 1 | 30.03.2015 | Carmel High School, Giddha Pahar Kurseong (Class II & III) | 28 | 3 | Visit to Zoo and interaction. |
| 2 | 31.03.2015 | Carmel High School, Giddha Pahar Kurseong (Class VI) | 22 | 3 | Visit to Zoo and interaction. |
| 3 | 08.04.2015 | Assembly of God Church, School | 102 | 4 | Visit to Zoo and interaction. |
| 4 | 24.04.2015 | Loreto Convent, Darjeeling | 123 | 10 | Visit to Zoo and interaction. |
| 5 | 08.05.2015 | Namchi Government College, Kamrang South Sikkim | 14 | 03 | Visit to Zoo and interaction. |
| 6 | 13.05.2015 | Uttarakhand Forestry Training Academy, Haldwani, Uttarakhand | 40 | 2 | Visit to Zoo and interaction. |
| 7 | 19.05.2015 | St. Antony School, Darjeeling | 40 | 5 | Visit to Zoo and interaction. |
| 8 | 20.05.2015 | Madhyamik Siksha Kendra | 44 | 4 | Visit to Zoo and interaction. |
| 9 | 23.05.2015 | Thurbo High School, Darjeeling | 9 | 2 | Visit to Zoo and interaction. |
| 10 | 27.05.2015 | Municipal Boy's Primary School | 40 | 3 | Visit to Zoo and interaction. |
| 11 | 27.05.2015 | Central Academy for SFS, Burnihat, Assam | 34 | 1 | Visit to Zoo and interaction. |
| 12 | -28.07.2015- | Forest Range Officer's for the year 2015-16 Central Academy for State Forest Service, Burnihat, Assam | 39 | - 1 - | Visit to Zoo and interaction. |

SCHOOL VISIT 2015-16

SCHOOL VISIT 2015-16

| | SCHOOL VISIT 2013-10 | | | | | | | | | | |
|------------|----------------------|--|-----------------------|-----------------------|--|--|--|--|--|--|--|
| SI. No. | Date | Name of School/Training Institute /Colleges/Universities | Number of Students | Number of Teachers | Educational Incentives | | | | | | |
| 13 | 04.08.2015 | 104th Batch Dr/Fr Trainees of West Bengal Forest School, Dow-hill, Kurseong | 18 | 3 | Visit to Zoo and interaction. | | | | | | |
| 14 | 25.08.2015 | Goethals Memorial School, Kurseong | 110 | 6 | Visit to Zoo and interaction. | | | | | | |
| 15 | 11.09.2015 | Participants of Wildlife Trade workshop | 35 | 2 | Visit to Zoo and interaction. | | | | | | |
| 16 | 15.09.2015 | Goethals Memorial School, Kurseong | 38 | 2 | Visit to Zoo and interaction. | | | | | | |
| 17 | 15.09.2015 | Border's Guard, Bangladesh | 25 | 3 | Visit to Zoo and interaction. | | | | | | |
| 18 | 26.09.2015 | 57th Session of Forest Guard's Trainees, Forestry Training Centre, Rajabhatkhawa | 29 | 2 | Visit to Zoo and interaction. | | | | | | |
| 19 | 29.09.2015 | St. Teresa's Higher Secondary School, Darjeeling | 450 | 15 | Visit to Zoo and interaction. | | | | | | |
| 20 | 09.10.2015 | The Assembly of God Church School, Darjeeling | 126 | 06 | Visit to Zoo and interaction. | | | | | | |
| 21 | 09.10.2015 | Crayon's Preparatory School, Darjeeling | 60 | 07 | Visit to Zoo, lecture and interaction. | | | | | | |
| 22 | 14.10.2015 | State Forest Service and Senior Range Officer's Course, 2015 | 35 | 01 | Visit to Zoo, lecture and interaction. | | | | | | |
| 23 | 16.10.2015 | Glendale Academy, T.N. Road, Darjeeling | 40 | 06 | Visit to Zoo, lecture and interaction. | | | | | | |
| 24 | 04.11.2015 | R.C. Mission, Maney Bhanjayang, Darjeeling | 36 | 07 | Visit to Zoo, lecture and interaction. | | | | | | |
| 25 | 05.11.2015 | State Environment and Forest Training Institute, Nagaland | 20 | 04 | Visit to Zoo, lecture and interaction. | | | | | | |
| 26 | 06.11.2015 | Sunshine Academy, Soom 2nd Division, Darjeeling | 23 | 07 | Visit to Zoo, lecture and interaction. | | | | | | |
| 27 | 07.11.2015 | Mother's Nursery School, Darjeeling | 65 | 07 | Visit to Zoo, lecture and interaction. | | | | | | |
| 28 | 20.11.2015 | Notre Dame School, Kinjalay Bazar | 49 | 5 | Visit to Zoo, lecture and interaction. | | | | | | |
| 29 | 24.11.2015 | Simana for Basic School, Sukia | 20 | 06 | Visit to Zoo, lecture and interaction. | | | | | | |
| 30 | 24.11.2015 | Majidhura Primary School, Sukhia, Darjeeling | 10 | 04 | Visit to Zoo, lecture and interaction. | | | | | | |
| 31 | 25.11.2015 | E.F.R.C, Kurseong | 13 | 01 | Visit to Zoo, lecture and interaction. | | | | | | |
| | | | 10 | | | | | | | | |

| | SCHOOL VISIT 2015-16 | | | | | | | | | | | |
|------------|----------------------|---|-----------------------|-----------------------|---|--|--|--|--|--|--|--|
| SI. No. | Date | Name of School/Training Institute /Colleges/Universities | Number of Students | Number of Teachers | Educational Incentives | | | | | | | |
| 32 | 01.12.2015 | Anulia High School | 54 | 14 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 33 | 02.12.2015 | Sai Krishna Vidhya Academy | 70 | 07 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 34 | 05.12.2015 | Zion Academy, Sumbuck | 40 | 08 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 35 | 07.12.2015 | Divya Jyoti Academy, Sonada | 30 | 07 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 36 | 09.12.2015 | Badamtam Jr. Basic School, Darjeeling | 23 | 07 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 37 | 18.12.2015 | West Bengal Forest School, Dowhill, Kurseong | 18 | 02 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 38 | 29.12.2015 | Patikabari High School | 50 | 10 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 39 | 20.01.2016 | Jubilant Elite Academy | 16 | 04 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 40 | 21.03.2016 | Telangana State Forest Academy | 69 | 1 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 41 | 20.03.2016 | Nabil's Memorial School, Jorthang | 38 | 5 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 42 | 30.03.2016 | Municipal Boys Primary School | 27 | 6 | Visit to Zoo, lecture and interaction. | | | | | | | |
| 1 | | TOTAL | 2172 | 206 | a sould | | | | | | | |

SCHOOL VISIT 2015-16

Number of Student's Visited = 2172 Number of Teachers visited = 206

2.7.4 <u>Research</u>

The update of animal records such as History cards, Stud books, and others were done using the International Species Information System. Projects on Study of soil micro- flora and micro-fauna of the enclosures of Padmaja Naidu Himalayan Zoological Park, Darjeeling, Dow Hill and Topkedara were initiated for which a laboratory was set up. The laboratory was equipped with a laminar flow, refrigerator, incubator, instruments and chemicals etc. The project on *Population and behavioural Ecology of red Panda Ailurus fulgens of Singalila National Park and Neora valley National Park, West Bengal, India with special reference to Conservation was initiated and field work is in progress.*

MEETINGS AND TRAINING ATTENDED BY ZOO OFFICERS& STAFF Workshop and Training Programme attended by Zoo Official and Staff

| Sl. No. | Name of the training | Name of the person | Place | Period |
|------------|--------------------------------|---|-------------------------------|--|
| 1 | Zoo Keepers Training Programme | Shri. K.P. Rai, Zoo Keeper Shri Amar Chettri, Zoo Keeper | Zoological Garden, Alipore | 21 st to 23 rd September 2015 |

TRAINING/WORKSHOPORGANISED:

Name of the Training: "Zoo Keeper's Training Programme"

Date and Venue:

In the 10th meeting of the Governing Body of the West Bengal State Zoo Authority held on 28th January 2015 the proposed training programme for the Zoo keepers in Zoological gardens for both North and South Bengal was approved by the Governing body. The training-workshop took place from 22nd to 26th June 2015 at Padmaja Naidu Himalayan Zoological Park, Darjeeling.

Training Programme and the Team:

The members of the training team were mr. Piar Chand IFS, Director, Dr. Uttam mani Pradhan, veterinary Officer, Mr. Shiromani Syangden, Estate Officer, Mr. Purna Ghishing, Animal Supervisor, Mr. Sudhir Ghatraj, Ranger, Ms. Upashna rai, Zoo Biologist, Mr. Bhupen Roka, Education Assistant, Ms. Pranita Gupta, Research Scholar and Mr. Aditya Mitra, Research Scholar.

Agenda

The training team agreed to a draft agenda prior to the training- workshop which was approved by the participants. Day 1:

Opening and Introduction

Introduction to Zoos in India: History of Zoos, category of Zoos, Role in Conservation.

Zoo Keeping and the Challenges Ahead

Visit to the Park and Old Conservation Breeding Centre Snow leopard and Red Panda.

Day 2:

Lectures

Management of carnivores in Captivity

Environment Enrichment techniques for captive animals.

Environmental Enrichment for Birds and Pheasants

Feeding Enrichments in Captive animals.

Hands on training (Preparing enrichment items)

Day 3

Visit to New Conservation Breeding Centre for Snow leopards and red panda and |Conservation Breeding Centre for Pheasants and herbivores.

Day 4

Lectures

Types of diseases, treating and taking care of diseased animals

Importance of Hygiene in captive animals.

Role of zookeepers in enclosure designing for captive animals

Disaster management and emergencies in zoos.

Practical demonstration (Animal restraint and animal handling during treatment)

Day 5

Importance of feeding in captive Animals. Record keeping and its importance Animal Transportation and Exchange Programmes. Keeper's talk Valedictory.

Participants

The training workshop was attended by nineteen zoo keepers from various zoos, rescue centres and parks

| Sl. No. | Name of the Zoo | No. of Candidate |
|------------|--|------------------|
| 1 | Alipore Zoological Park, Kolkata | 2 |
| 2 | Sunderban Wild Animals Park, Jharkhali | 0 |
| 3 | Paschimanchal Zoological Park, Burdawan | 2 |
| 4 | Bardhaman Zoological Park, Burdawan | 2 |
| 5 | Rasikbil Mini Zoo, Coohbehar | 2 |
| 6 | Surulia Mini Zoo, Purulia | 1 |
| 7 | Garchumuk Deer Park, Howrah | 1 |
| 8 | South Khaibari Rescue centre, Alipurduar | 1 |
| 9 | Adina Deer park, Maldah | 0 |
| 10 | Kunjanagar Nature Park, Alipurduar | 1 |
| 11 | Kumari Kangsabati Deer Park, Bankura | 2 |
| 12 | Padmaja Naidu Himalayan Zoological Park | 5 |
| | TOTAL | 19 |

The training –workshop began with an inaugural function where the Director and the senior officers of the park lighted the diva followed by a welcome address by the Director. The director during his address highlighted the importance and the need of such a training programme. The director's address was followed by a word or two from the senior officers of the park regarding the training programme. The participants were then asked to introduce themselves. After the inaugural function everyone gathered for a photo session followed by tea. The plenary session began at 12:00 noon where Mr. Bhupen Roka, Education Assistant of the park in his lecture highlighted about a **zoo, history about the zoo, concept of modern zoos, aims and objectives of zoos and conservation** breeding programmes. After lunch break Ms. Upashna Rai, Zoo Biologist presented a lecture on Zoo keeping as a profession and the challenges that lie ahead for the zookeepers and the profession. The participants were then taken for a visit to the display area of the Park and the Conservation breeding centre. The participants during their visit were shown various species of high altitude and were also made aware as to how a collection plan of the zoo should be planned. The other important facilities like signages (Informative and directional), drinking water, resting area, toilets, guides etc were also made aware to the participants. In the breeding centre the participants were given information as to why c Conservation Breeding centre is required and manage-mental practices done for red panda and snow leopard were shown. The day ended with a discussion with the participants regarding the day's event and also allowing the participants to express their views and comments. The second day lectures focused on Animal Enrichment Programme. Ms. Rai in her presentation highlighted adverse effect of captivity, making enrichment for the captive animals a necessity, what is it, importance, goals to be achieved, types of enrichment, who should be enriched, documented effects and its pitfalls, Mr. Aditva Mitra, Research Scholar of the park and Mr. Bhupen Roka Education Assistant in their lectures highlighted about the environmental enrichment for birds and pheasants and feeding enrichment of wild animals in captivity respectively. In the second half the trainees were divided into two groups to design enrichment for the animals in the breeding centres and the display area. On the third day of the training the trainees were taken for a visit to the two Conservation Breeding centres at Topkedara, 3rd Mile and Dow Hill, Kurseong. At the facilities the trainees were given a lecture on **why a** Conservation breeding centre is required, what are the aspects that needs to be considered while developing a breeding centre and the modern facilities to be made available for better captive management of the species concerned. In the Pheasant and herbivore breeding centre a practical demonstration was given on- Pheasant capture, proper handling of the pheasant, ringing and ways to assess the health status of the pheasant. The seven and the two unit aviaries, egg incubation, chick rearing and medical treatment attached to these aviarieswere shown to the trainees and the significance **of having such a compact facility was also explained.** On the fourth day Dr. Uttam mani Pradhan, Veterinary Officer delivered a lecture on signs of animal sickness, clinical and preventive diseases including preliminary treatments that can be done by the zookeepers. Dr. Pradhan also talked about the hygiene in captive animals. The lecture was followed by useful information on enclosure designing for captive animals by Mr. Shiromani Syangden, Estate officer of the Park. On the later part of the day Dr. Uttam Mani Pradhan and the veterinary team gave a field demonstration on animal restraint, emergency treatments on the field, ways to maintain hygiene in the enclosures, nightshelters and surrounding areas. On the last day Ms. Rai delivered a lecture on Record keeping and its significance followed by Mr. Mitra in his lecture giving information on record keeping of birds and pheasants. The final presentation highlighted on Animal transportation and exchange programmes. Reading material prepared by the Park and West Bengal Zoo Authority was also distributed to the participants for future reference. A keeper's talk was organised at the end followed by a valedictory session. Certificate and mementos were distributed to the participants. The fee- back forms received from the participants were analyzed. Maximum of the participants were of the opinion that the training programme have been very useful for them and they shall adopt certain feasible methods in their park. They have also expressed that such training programmes should ben organised in future as well.

Completed a short term research project on "Studies on biology, breeding behaviour and aviary practices for improved performance of captive Himalayan Pheasants funded by Central Zoo Authority. The project was initiated on

Initiated a research project funded by West Bengal Zoo Authority on:

- 1) Studies on Population and Behavioural Ecology of Red Panada (*Ailurus fulgens*) in Singalila National Park and Neora Valley National Park with special reference to conservation.
- 2) **Publications:**
- Arun Kumar, Bhupen Roka, Upashna rai, P. Anuradha Reddy. Molecular sex identification of red panda (Ailurus fulgens) suitable for non invasive genetic studies. European Journal of Wildlife Research. ISSN 1612-4642 DOI10.1007/S10344-01`5-0928-2.

| SI. No. | Name of the Intern | School/College/University/ Other Institution | Country | Duration of Internship | Area of Work |
|------------|--------------------------|---|---------|---|---|
| 1 | Miss. Deepshika Shah | International Baccalaureate 1 st year Canadian International School, Banglore | India | 25.06.2015- 03.08.2015 | Captive management of animals at PNHZ Park |
| 2 | Mr. Samir Thapa | M.Sc. Zoology Darjeeling Government College, Darjeeling | | 20.09.2015 - 20.10.2015 | Parasitic Study of captive Animals (mammals & Pheasants) |
| 3 | Mr. Akash Thapa | 1 st Year, Botany (Hons.), St. Joshep's College, Darjeeling | | 24.009.2015 | |
| 4 | Mr. Palden Tamang | 1 st Year, Botany (Hons.), St. Joshep's College, Darjeeling | | | |
| 5 | Mr. Himanshu Umesh Damle | 4 th year B.V.Sc. & A.H. Bombay Veterinary College, Mumbai | | 3.01.2016- 16.01.2016 | High Altitude herbivore hair key |
| 6 | Mr.Supriyo Dalui | 4 th Year, Zoology (Hons.) University of Calcutta | | 05.10.2015-18.05.2015/ 13.03.2016-22.03.2016 | Review work on Project Snow leopard |

Zoo Interns: Following are the Zoo Interns for the year 2015-2016

The Park provided them with all the necessary assistance required by them including a certificate and remunerations for their service to the Park.

2.7.5. GARDEN SECTION

The Garden Section under the supervision of the Estate Officer was given proper attention. For proper care of the orchids, succulent and ornamental plants, glass house was constructed which housed a store room at the ground floor. Proper storage room has also been created for storing of manure throughout the year in the Zoological Park. Nursery has been made for seasonal flowering plants. All the peasantries, lesser cats enclosures and Red Panda enclosures have been carpeted with grass to give a natural look. Regular infilling and new plantation is done to provide suitable habitat for the zoo animals. The work has been outsourced by way of tender, to technical persons. This was warranted by old age and death of Malis.

The trees at the peripheral areas/display areas of the park were labeled for the convenience of the visitors, students, researcher's etc with name plates which includes scientific name, local name and family.

2.7.6. SANITATION SECTION

Sanitation in the Zoological Park has been given due importance. On one hand enclosures are being cleaned with disinfectants every morning and on the other hand cleaning of the debris as well as remains of the animal waste and left over of animal feeds are done every day. In the mean time, all the left out bones of the animal's feeds, excreta, of the animals is being burnt regularly in the burning shades using diesel and fire wood. A new electric

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incinerator has been installed at this park with the Central Zoo Authority funding in the last year for safe disposal of carcass and other waste.

2.7.7. SECURITY SECTION

The section under the supervision of the Estate Officer looks after the security of the Zoological Park both day & night. The main area of the Zoological Park has been encircled by 7 feet high concrete boundary wall with coiled concertina wire on top. This has stopped the fear of encroachment. Private security personnel have been engaged in addition to the regular forest guards and they have also been provided with Khukuri/lathis and torches.

CHAPTER – 3

3.1. PROJECT SNOW LEOPARD

Extremely threatened due to hunting, killing, IUCN (2006) lists as endangered (EN-C2a (i) on the IUCN Red List and IWPA lists it as a Schedule I species. CITES includes it as an Appendix I species. Population estimated below 2500.

Snow leopard is an extremely beautiful animal distributed along the habitat scattered throughout a vast region surrounding the Central Asian deserts and plateaus ranging from Afghanistan to Uzbekistan. Throughout most of its range, snow leopards are associated with arid and semi arid shrub-land, grassland or steppe. The species is generally found at elevation between 3000m -4600m, although they are known to go above 5500 m in the Himalayas. Steep terrain broken by cliffs, ridges, gullies and rocky outcrops is preferred, although in certain parts like Mongolia and Tibet plateau they can be found in relatively flat country. In India, snow leopard is distributed in the Himalayan chain from Kashmir to Sikkim, northwards their territory extends into Tibet, Central Asia and the Altias in the region of stupendous rock and cliff above the tree-line some 12,000-13,000ft (3660-3965m) above sea level.

Hunting of the Snow leopard is one of the major threats to the species. Snow leopards have been hunted out of many of the areas of the high Central Asian Mountain. There is a demand for snow leopard bone from the Chinese medicine trade. Garments of Snow leopard fur were once highly priced in fashion world and although no longer in International trade, fur coats and novelty furs have seen for sale in shops throughout China, Taiwan and Mongolia.

The species have become extremely rare in many parts of its native habitat. In India, where snow leopards occur on the southern slopes of the Himalayas. The species is listed as endangered under the Wildlife Protection Act (1972). In this respect PROJECT SNOW LEOPARD (PSL), a flagship species programme to strengthen wildlife conservation in the Himalayan high altitude was launched.

PNHZ Park started work on captive breeding project of this rare species in the year 1983. Apart from a number of *insitu conservation efforts*, a *global captive breeding programme* is in place. Darjeeling zoo has been a part of this initiative since 1986.

Experts Dr. Ingo Rieger and D. Walzthoeny from USA inspected the site in July 1983 and gave their approval.

Site selection for off- display conservation breeding centre for snow leopard is the North- Western corner of Jawahar Parbat (Birch Hill) at an altitude of 27 degree and longitude 88 degree East. Altitude is 6900ft.

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

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

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

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

*Wildcaughtfounder("Meeta"227)didnotmakeanycontributiontothebreedingprogramme.

Padmaja Naidu Himalayan Zoological Park in 2003 had 18 Snow leopards (9:9), one of the largest captive population, inasinglezoo, in the world.

Nextstepwastohave 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 paire achofs now leopard was sent from Darjeeling zooto Himalayan Zoological Park, Gangtok, Pandit Govind Ballabh Pant High Altitude Zoo, Nainital and Himalayan Nature Park, Kufri, Shimla to start subsidiary snow leopard breeding centers in these Himalayan zoos.

Inbetween2004-2013threeindividuals died with one cubsurvival 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 snowleopard in the facility came up with the following recommendations:

- ScientificmanagementoftheBreedingprogrammeincludingdevelopmentof husbandryprotocols.

-Inordertomaintainthegeneticvariabilityandtoprovidewithlargerbreedingoptionsanimalexchangeshouldbe made regularly in consultation with the International Stud book keeper. Individuals > 16 years should not be considered for breeding.

-Demographicandgeneticanalysismandatoryofcaptivestock.

-Newerbreedingfacilitiestobeestablished.

Basedontherecommendations

Ashorttermresearchonthe "*StudyofSnowleopards*" funded by Central ZooAuthority 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 bornin 2012 and 2014 survived. Besides this there search work helpeding iving inputs during the establishment of the new breeding centre for the snow leopards where the night shelters, breeding dens, enclosures, veterinary facilities have been developed based on the recommendations of the findings.

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

Studbook analysis: *inbreeding- not advisable Low coefficient- advisable*. Demographic analysis suggestedthatnewfoundersbeaddedtothecaptivepopulationandthepopulationsizebeincreasedtoatleast100 individualswithequalsexratiointheperiodofnexttenyears. Thepopulation projection for both actual and modeled population suggest that the goal of maintaining at least 100 genetically viable and demographically stable individuals in captivity in India cannot be achieved without the addition of fresh founders and utilizing the reproduction potential of the captive population to the maximum.

Basedonthegeneticanddemographicanalysisofthecaptivestock2:2individualswasincludedinthecaptive. ThecaptivestockinJune2014isasfollows:

| SI. No. | Name | Stud# | Sex | Birth Date | Sire | Dam | Location | Transponder |
|------------|---------|-------|-----|------------|------|------|----------------|------------------|
| 1 | Karan | 1897 | М | 23.10.1995 | 1059 | 1474 | Darj | 981098102057256 |
| 2 | Tista | 2399 | F | 29.03.2002 | 1897 | 2228 | Darj | 00-0611-4DB1 |
| 3 | Budha | 2401 | М | 19.06.2002 | 1850 | 1797 | Darj | 00-061-FA9B |
| 4 | Prabhat | 2405 | М | 8.07.2002 | 1850 | 1899 | Darj | 00-0618-24E0 |
| 5 | Ritu | 2538 | F | 11.032004 | 1897 | 2228 | Darj | 981098102056547 |
| 6 | Yasmin | 2540 | F | 25.05.2004 | 1850 | 1797 | Darj | ID-00-00F6-8A38 |
| 7 | Rare | 2994 | F | 19.06.2012 | 2405 | 2538 | Darj | 95600002158446 |
| 8 | Kim | 2846 | F | 29.05.2012 | 2566 | 2430 | Nurnberg, Darj | 3968000005548177 |

| SI. No. | Name | Stud# | Sex | Birth Date | Sire | Dam | Location | Transponder |
|------------|---------|-------|-----|------------|------|------|--------------------------------|-----------------|
| 9 | Subash | 2402 | Μ | 08.07.2002 | 1850 | 1899 | Darj | 00-0617-C8C5 |
| 10 | Lavani | 2861 | F | 06.05.2010 | 2469 | 2274 | Lodz,Darj | 968000005545293 |
| 11 | Zima | 2862 | F | 06.05.2010 | 2469 | 2274 | Lodz,Darj | 968000005542846 |
| 12 | Sici | | М | 22.05.2011 | | | Jhilava zoo, Czech Republic | 95600001977872 |
| 13 | Unnamed | | U | 02.05.2014 | 2401 | 2861 | Darj | |
| 14 | Unnamed | | U | 02.05.2014 | 2401 | 2861 | Darj | |

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

Death of one male in 2014, death of 2 males in 2015 and 1 male in 2016 skewed the breeding options leaving the Park with 1 male and 8 female.

In consultation with the International Stud book keeper an animal exchange programme has been proposed with Dudley zoo and Mulhouse zoo.

| SI. No. | Name | Stud# | Sex | Birth Date | Sire | Dam | Location | Transponder |
|------------|-------------------------|-------|-----|------------|------|------|---------------|------------------|
| | Tista | 2399 | F | 29.03.2002 | 1897 | 2228 | Darj | 00-0611-4DB1 |
| | Ritu (Topkeydara) | 2538 | F | 11.03.2004 | 1897 | 2228 | Darj | 981098102056547 |
| | Yashmin | 2540 | F | 25.05.2004 | 1850 | 1797 | Darj | ID-00-00F6-8A38 |
| | Rare | 2994 | F | 19.06.2012 | 2405 | 2538 | Darj | 956000002158446 |
| | Kim (Topkey dara) | 2846 | F | 29.05.2012 | 2566 | 2430 | Nurnberg,Darj | 3968000005548177 |
| | Subash (Topkey dara) | 2402 | М | 08.07.2002 | 1850 | 1899 | Darj | 00-0617-C8C5 |
| | Lavani (Topkey dara) | 2861 | F | 06.05.2010 | 2469 | 2274 | Lodz,Darj | 968000005545293 |
| | Zima | 2862 | F | 06.05.2010 | 2469 | 2274 | Lodz,Darj | 968000005542846 |
| | Tista | 2399 | F | 29.03.2002 | 1897 | 2228 | Darj | 00-0611-4DB1 |

Current stock of the species at the park as on 31.03.2016

Total population and their sex ratio: 8 (1:8)

FUTURE WORKS:

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

Project Red Panda

Red panda *Ailurus fulgens* is a small mammalof the Himalayas, almost of the size of the jungle cat with chestnut coat and ringed tail. It is distributed in the Himalayas from Central Nepal through northern Burma in the mountains of southwestern China at altitudes between 900-13,000 feet. In India, red panda is distributed in Sikkim, Darjeeling Hills and Arunachal Pradesh.

Red panda is threatened by habitat loss and fragmentation. Red panda was also hunted and trapped in large number to be kept as pets and for supply to zoos all over the world. The species is enlisted as Endangered by the IUCN (2006) with a declining population in its distribution range. The species is a protected species in all its range countries (Nepal, Bhutan, India, Burma and China). In India the species receives protection under the Indian Wildlife Protection Act (1972). The species is also under the CITES I Appendix. Population estimated below 2500.

In captivity, a global captive breeding program is in place something which started in the early 1990s in Europe. Padmaja Naidu Himalayan Zoological Park, Darjeeling which at present has 17 (10:7) red pandas is also a part of this breeding program for the red panda. The zoo was able to restock four red pandas back to the wild as a conservation initiative.

A planned conservation Breeding Project as a part of the Global Captive Breeding Project as a part of the Global Captive Breeding Master Plan was initiated in early nineties in the Zoological Park in response to the International Conservation efforts, through initiation of the project and improvement/modification of existing housing facilities which already existed.

Zoological Park had one male (Basant) and three females (Amita, Chanda and Divya) all of wild origin in the stock at the beginning of the Project in 1990. Hence one male "Oscar" (d.o.b June 29,1992) was brought from Rotterdam Zoo in April 1, 1993 to augment the existing population of 4 red Pandas in the zoological Park.

The first successful planned breeding of red Panda occurred on 20.06.1994 when two cubs "Ekta" and "Friend" were born to "Basant" and "Amita"

Hari (d.o.b – June 30, 1993, Rotterdam), Gora (male, d.o.b-June 25,1993, Koln)and Indira (female d.o.b.-June 26,1993, Madrid) arrived in Darjeeling on November 10, 1994 to induce new blood and to continue the planned breeding programme.

PNHZ Park in 2003 had a stable and genetically healthy population of 21 red pandas in captivity. Pair at Gangtok (Sikkim) Zoo (a subsidiary breeding center established in the region) has also started breeding.

The zoological park was in a position of realizing the ultimate objective of the project of releasing zoo bred red pandas in the wild in the Singalila national park, to begin with

Guidelines stipulated by the IUCN for re-introduction/re-stocking of captive born wild animals were followed in totality for the programme. All necessary clearances from Govt. of India and Govt. of West Bengal were obtained for the purpose.

Pre-release monitoring of the red panda population and habitat in the Gairibans area of the Singalila National Park was organized during November/December, 2002.

DNA based analysis was conducted in collaboration with Centre for cellular and Molecular Biology, Hyderabad for taxonomic status and genetic variability studies.

An Intermediary release facility (50 sq m) for soft release o the animals were created near Gairibans Beat office (around 8500ft) of South Singalila Range in the Singalila national Park. The construction cost was fully funded by the Central Zoo Authority, Govt. of India.

Both the animals were shifted to the intermediary release facility at Gairibans for acclimatization and kept there for 3-4 months. Though they were in the wild, they were still under the supervision and observation of some of the zoo staffs posted there. When the animals were thought to have acclimatized well to the environment, they were finally released into the wild.

Radio collars of appropriate size and weight were fitted on the animals for their post-release monitoring for at least 12 months (or till batteries of the collars were functional).

Out of the two female red pandas (Mini and Sweetie) released in 2003, sweetie gave birth to a cub in July 2004 in a hollow of an oak tree in Gairibans (SNP, Darjeeling).

In 2007 and 2008 two wild caught males were added to the captive stock including one female from Auckland zoo to increase the breeding potential.

In 2010 one captive born female was brought from Auckland Zoo, New Zealand to add variability to the existing population.

In 2012 Red Panda census was carried out in two phases the objective of the census was to -Conduct meetings and train locals for the census, Assess the population number -*Assess the habitat, Further verification of the population status by genetic analysis through fecal samples, Other existing animals in the Red Panda habitat, Threat analysis, GIS Mapping of both the National Parks.*

31 Red Pandas through direct sighting in both National parks. Through genetic analysis 38 in SNP (17:4:17) and 32 (12:13:7) in NVNP.

A short term research Project was also initiated from March 2012-2014 funded by Central Zoo Authority on "Study of Red Panda (*Ailurus fulgens*) in ex-situ facilities in co-relation with insitu 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 Aproach*".

Population Habitat Viability Analysis for Red Panda done on November 2014.

Pt. Govind Ballabh Pand High Altitude Zoo, Nainital approved as participating Zoo by Central Zoo Authority vide letter F.N.O 24-7/2007-CZA(Vol.II)(A)/3613 dated 25.9.2013.

A pair of Red Panda was transferred to Nainital Zoo on 25.11.14. The pair gave birth to two cubs in 2015, thus ensuring a captive population that shall later assist the breeding programme at Darjeeling Zoo.

One captive female added to the captive stock from Sikkim Zoo for further breeding.

| SI. No. | Name | Stud Book No. | Sex | Sire | Dam | DT of ACQ | DOB | Transponder No. | Remarks |
|------------|----------|------------------|-----|-------|---------|-----------|----------|--------------------|-------------|
| 1 | Shakya | 01127 | М | Gora | Ekta | - | 18.06.01 | ID-00-0611-3083 | |
| 2 | Sheetal | 0356 | F | Omin | Kalita | - | 02.07.03 | 981-0981-02055661 | |
| 3 | Samridhi | 0886 | F | John | Sheetal | - | 06.07.08 | 9810-9810-205573 | |
| 4 | Pokhraj | 01128 | М | Gora | Ekta | - | 18.6.01 | ID-00-061-FD19 | |
| 5 | Ram | 1088 | М | John | Sheetal | - | 22.06.10 | 0006B82659 | Topkey dara |
| 6 | Janaki | 1089 | F | John | Sheetal | - | 22.06.10 | 0006B7428B | Topkey dara |
| 7 | Rigsel | 0789 | F | Rahul | Lucky | 31.10.11 | 28.05.07 | 0006B7107E | |

| SI. No. | Name | Stud Book No. | Sex | Sire | Dam | DT of ACQ | DOB | Transponder No. | Remarks | | |
|------------|----------|------------------|-----|----------|-----------|-------------------------------|------------|--------------------|-------------------------------------|--|--|
| 8 | Smile | 12123 | F | Kaijalay | Samridhi | - | 19.06.2012 | 956000002159372 | | | |
| 9 | Shifu | 13175 | М | Kaijalay | Risgel | - | 27.06.2013 | 956000002147924 | Shifted to Topkey dara on 7.12.2015 | | |
| 10 | Kitchi | 13176 | F | Kaijalay | Risgel | - | 27.06.2013 | 956000002145534 | Topkey dara | | |
| 11 | Shova | 11116 | F | Ram | Lucky | 22.02.2014 from Sikkim Zoo | | 956000002158277 | Topkey dara | | |
| 12 | Shine | - | F | Kaijalee | Sambridhi | - | 04.07.2014 | - | | | |
| 13 | Balam | 15117 | М | Kaijalee | Janaki | - | 07.06.2015 | • | | | |
| 14 | Prashana | 15118 | F | Ram | Shova | - | 16.06.2015 | - | | | |
| 15 | Noel | 15119 | М | Shifu | Sheetal | - | 14.07.2015 | • | | | |
| 16 | Joel | 15120 | М | Shifu | Sheetal | - | 14.07.2015 | - | | | |
| 17 | Karma | 10118 | F | Ram | Lucky | 23.11.2015 from Sikkim Zoo | 03.06.2010 | 956000002158469 | Shifted to Topkey dara on 7.12.2015 | | |

The current population of Red Panda at Darjeeling Zoo stands as 7:10

Total: 7:10

Ongoing Work in the Red Panda Project:

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

Future Work:

Ex-situ:

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

In-situ:

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

CHAPTER - 5

5.1. INVENTORY OF ANIMALS

Annual Inventory Report of Padmaja Naidu Himalayan Zoological Park, Darjeeling for the month of 01.04.2015-31.03.2016

| E | ndangered Species: | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--------|-------|--------|-----------------|---|----------|---|-------|---|---|---|---|---|---|---|--------|--------|---|--------|
| | | | | | | | | | | | | | | | | | | | | | | |
| Sl. No. | Animal Name | Scientific Name | Opening stock as on 01.04.2015 - 31.03.2016 | | Birth | | Acquisitio n | | Disposal | | Death | | | Closing stock as on 01.04.2015 - 31.03.2016 | | | | | | | | |
| | Bird | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 1 | Pheasant Bhutan Grey Peocock | Polyplectron bicalcaratu m (Lowe, 1925) | 4 | 3 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 2 | 1 | 6 |
| 2 | Pheasant Cheer | <i>Catreus wallichii</i> (Hardwicke, 1827) | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |
| 3 | Pheasant Impeyan (Monal) | Lophophorus impejanus (Latham, 1790) | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |
| 4 | Pheasant Nepal Kalij | Laphura leucomelana (Latham, 1790) | 1 1 | 6 | 0 | 1 7 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 3 | 4 | 0 | 1 7 |
| 5 | Tragopan Temminick' s | Tragopan temminickii (Gray, 1831) | 6 | 5 | 0 | 1 1 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 5 | 4 | 4 | 1 3 |
| 6 | Tragopan Satyr | Tragopan satyra (Linnaeus, 1758) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | | 2 5 | 1 8 | 0 | 4 3 | 0 | 0 | 1 2 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 3 | 4 | 2 5 | 1 4 | 5 | 4 4 |
| | Mammal | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 1 | Bear Asiatic Black/ Himalayan Black | Ursus thibetanus G. Cuvier, 1823 | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |
| 2 | Blue Sheep Himalayan/ Bhoral/ Nayur | Pseudois nayaur (Hodgson, 1833) | 7 | 4 | 0 | 1 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 8 | 3 | 0 | 1 1 |
| 3 | Cat Jungle | <i>Felis chaus</i> (Schreber, 1777) | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| 4 | Cat Leopard | Prionailurus bengalensis (Kerr. 1792) | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 5 | Civet Asian Palm/Com mon Palm Civet | Paradxurus hermaprodit us (Kerr,1792) | 3 | 2 | 0 | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 8 |

| Sl. No. | Animal Name | Scientific Name | 0 | enin as 1.04. 31.03 | on 201! | 5- | | Birtl | 1 | Ace | quisi n | tio | Di | spos | al | D | eatl | h | on | sing 01.04 1.03 | 1.20 2 | 15 - |
|------------|--|--|--------|------------------------------|------------|--------|---|-------|---|-----|------------|-----|----|------|----|--------|------|---|--------|-----------------------|---------------|--------|
| | Mammal | 1 | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 6 | Himalayan Palm Civet | Paguma larvata (Hamiltonn -Smith, 1827) | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 2 |
| 7 | Jackal | <i>Canis aureus</i> (Linnaeus, 1758) | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8 | Langur Common | Semnopithec us entellus (Dufresne, 1797) | 2 | 4 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 |
| 9 | Leopard Clouded | Neofelis nebulosa (Griffith, 1821) | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 10 | Leopard Snow | <i>Uncia uncia</i> (Schreber, 1775) | 4 | 9 | 0 | 1 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 8 | 0 | 9 |
| 11 | Leopard common | Panthera pardus (Linnaeus, 1758) | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |
| 12 | Markhor | Capra falconeri (Wagner, 1839) | 2 | 4 | 0 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 5 |
| 13 | Panda Red | Ailurus fulgens (Cuvier, 1825) | 6 | 8 | 0 | 1 4 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 1 0 | 0 | 1 7 |
| 14 | Slow Loris | Nycticebus coucang (E. Geoffroy, 1821) | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 15 | Thar Himalayan | Hemitragus jemlachius (Smith, 1826) | 3 | 5 | 0 | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 4 | 0 | 8 |
| 16 | Tiger Bengal | Panthera tigris (Linnaeus, 1758) | 1 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| 17 | Himalayan Wolf | Canis lupus himalayensis (Gray, 1863) | 2 | 8 | 0 | 1 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 1 | 5 | 0 | 6 |
| 18 | Yak | Bos grunniens (Linnaeus, 1766) | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| | То | otal | 4 4 | 5 2 | 0 | 9 6 | 7 | 2 | 2 | 1 | 1 | 0 | 1 | 2 | 0 | 1 1 | 9 | 0 | 4 2 | 4 7 | 0 | 8 9 |
| | Reptile | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 1 | Python Indian/ Indian Rock Python | Python molorus (Linnaeus,1 758) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 2 | Russell Viper | Daboia russelii (Shaw & Nodder, 1797) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| | | Total | 2 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |

Annual Inventory Report of Padmaja Naidu Himalayan Zoological Park, Darjeeling for the month of 01.04.2015-31.03.2016

| Exc | otic Species: | | | | | | | | | | | | | | | | | | | | | |
|----------------|--------------------------------|---|--------|---|--------|----|---|-------|---|----|------------|------|----|------|-----|---|------|---|--------|--------|-----------------------|--------|
| | | | | | | | | | | | | | | | | | | | | | | |
| Sl. N o. | Animal Name | Scientific Name | on | Opening stock as on 01.04.2015 - 31.03.2016 | | | 1 | Birth | 1 | Ac | quis on | siti | Di | spos | sal | С |)eat | h | on | 01.0 | stoci 4.20 .201 | 15 - |
| | Bird | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 1 | Amazon Orange Winged | Amazoa amazonica (Linnaeus,176 6) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 2 | Torraco | Corythaixoides concolor (Smith,1833) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 3 | Macaw Blue & Gold | Are chloropterus (Gray 1859) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 4 | Macaw Red & Blue | Are chloropterus (Gray,1859) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 5 | African grey parrot | Psittacus erithacus (Linnaeus,175 8) | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 6 | Sulphur crested Cockatoo | Cacatua galerita (Latham,1790) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 7 | Electus Parrot | Eclectus roratus (Muller,1776) | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 8 | Rose Ringed Parakeet | Psittacula krameri (Scopoli,1769) | 0 | 1 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 6 |
| 9 | Bare Eyed Cockatoo | Cacatua sanguinea | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| 10 | Cocktiels | Nymphicus hollandicus (kerr, 1792) | 0 | 0 | 3 2 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2 8 | 2 8 |
| 11 | Roseat Cockatoo | Eolophusroseic apilla (Vieillot,1817) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| | Pheasant Green | Phasinus versicolor (Vieillot,1825) | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 12 | Pheasant Chinese Silver | Lophura nycthemera (Linnaeus,175 8) | 4 | 1 0 | 6 | 20 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 6 | 1 1 | 0 | 1 7 |
| 7 | Pheasant Golden | Chrysolophus pictus (Linnaeus,175 8) | 1 6 | 1 8 | 7 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 1 | 0 | 1 3 | 1 9 | 0 | 3 2 |

| 8 | Reeve's Pheasant | Syrmaticus reevesi (Gray,1829) | 4 | 6 | 0 | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 3 | 5 | 0 | 8 | |
|---|-------------------------------|--|--------|--------|--------|---------|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|--------|---------|--|
| 9 | Pheasant Lady Amherst's | Chrysolophu s amherstiae (Linnaeus,17 58) | 2 | 1 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 1 | 8 | 0 | 9 | |
| | To | otal | 3 7 | 5 3 | 5 0 | 14 0 | 0 | 0 | 4 | 0 | 0 | 0 | 5 | 6 | 0 | 2 | 5 | 7 | 3 4 | 5 2 | 3 3 | 11 9 | |

Annual Inventory Report of Padmaja Naidu Himalayan Zoological Park, Darjeeling for the month of 01.04.2015-31.03.2016

| 0 | ther Species: | | | | | | | | | | | | | | | | | | | | | |
|---------|-------------------------|---|----|-----------------|----|----|---|------|----|-----|-------|-----|---|-------|----|---|------|---|----|----|-----------------|----|
| | | | | | | | | | | | | | | | | | | | | | | |
| Sl. No. | Animal Name | Scientific Name | | ening n 01.0 | | | | Birt | h | Acq | uisit | ion | D | ispos | al | I | Deat | h | | | tock a .2016 | |
| | Bird | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| 1 | Red Jungle Fowl | Gallus gallus (Linnaeus, 1758) | 12 | 10 | 0 | 22 | 0 | 0 | 21 | 0 | 0 | 0 | 5 | 6 | 0 | 0 | 1 | 2 | 8 | 5 | 16 | 29 |
| | | Total | 12 | 10 | 0 | 22 | 0 | 0 | 21 | 0 | 0 | 0 | 5 | 6 | 0 | 0 | 1 | 2 | 8 | 5 | 16 | 29 |
| | Mammals | | | | | | | | | | | | | | | | | | | | | |
| 1 | HimalayanGoral | Namorhaedus goral (Hardwicke,1825) | 8 | 3 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 6 | 2 | 0 | 8 |
| 2 | Barking Deer | Muntiacus muntjack (Rafinesque,1815) | 14 | 11 | 0 | 25 | 0 | 0 | 4 | 0 | 0 | 0 | 9 | 8 | 0 | 1 | 0 | 1 | 4 | 6 | 0 | 10 |
| 3 | Sambar deer | Rusa unicolor (Kerr,1792) | 1 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| | То | otal | 23 | 18 | 0 | 41 | | 0 | 4 | 0 | 0 | 0 | 9 | 10 | 0 | 3 | 1 | 1 | 11 | 10 | 0 | 21 |
| | | | М | F | U | Т | М | F | U | М | F | U | М | F | U | М | F | U | М | F | U | Т |
| | Reptiles | | | | | | | | | | | | | | | | | | | | | |
| | Tortoise Indian Star | Geochelone elegans (Schoepf,1795) | 1 | 1 | 9 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 1 | 0 | 2 |
| | Indian Sand Boa | Eryx johnii (Russell, 1801) | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 3 |
| | | | 2 | 2 | 9 | 15 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 9 | 3 | 2 | 0 | 5 |
| | Amphibian | | | | | | | | | | | | | | | | | | | | | |
| | Himalayan Newt | Tylototriton verrucossus (Anderson, 1871) | 6 | 7 | 16 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | 16 | 29 |
| | | Total | 6 | 7 | 16 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | 16 | 29 |

PHEASANTS AND ANIMALS IN THE ZOO AS ON 31ST MARCH, 2016- AN ABSTRACT

| AMPHIBIAN HIMALAYAN NEWT (Tylototriton verrucosus) | 29 |
|---|-----|
| TOTAL AMBHIBIAN | 29 |
| PHEASANTS & BIRDS | |
| PHEASANT GREY PEACOCK (Polypectron bicalcaratum) | 6 |
| PHEASANT IMPEYAN MONAL (Lophophorus impejanus) | 4 |
| RED JUNGLE FOWL (Gallus gallus) | 29 |
| PHEASANT KALEEJ (Lophura leucomelanos) | 17 |
| PHEASANT CHEER (Catreus wallichii) | 4 |
| SATYR TRAGOPAN (Tragopan satyra) | 0 |
| TEMMINCK'S TRAGOPAN (Tragopan temminckii) | 13 |
| LADY AMHERST (Chrysolophus amherstiae) | 9 |
| PHEASANT SILVER (Lophura nycthemera) | 17 |
| PHEASANT GOLDEN (Chrysolophus pictus) | 32 |
| PHEASANT GREEN (Phasianus versicolor) | 1 |
| PHEASANT RING NECKED (Phasianus colchicus) | 0 |
| HILL MYNA (Gracula religiosa) | 0 |
| REEVE'S PHEASANT (Syrmaticus reevesii) | 8 |
| ROSE RINGED PARAKEET (Psittacula krameri) | 6 |
| RED AND BLUE MACAW (Ara chloroptera) | 2 |
| BLUE AND GOLD MACAW (Ara ararauna) | 2 |
| GREY TORRACO (Corythaixoides concolor) | 2 |
| ORANGE WINGED AMAZON (Amazona amazonica) | 2 |
| AFRICAN GREY PARROT (Psittacus erithacus) | 3 |
| BARE EYED COKATOO (Cocatue sanguine) | 2 |
| SULPHUR CRESTED COCKATOO (Cocatua galerita) | 2 |
| ROSEATE COCKATOO (Eolophus roseicapilla) | 2 |
| ECLECTUS PARROT (Eclectus roratus) | 1 |
| COCKATAILS (Nymphicus hollandicus) | 28 |
| TOTAL BIRDS & PHEASANTS | 192 |

MAMMALS **INDIAN TIGER** (*Panthera tigris*) 3 CLOUDED LEOPARD (*Neofelis nebulosa*) 1 COMMON LEOPARD (Panthera pardus) 4 SNOW LEOPARD (Uncia uncia) 9 BLACK PANTHER(Panthera pardus) 1 6 HIMALAYAN WOLF (Canis lupus himalayensis) 1 JACKAL (Canis aures) 4 ASIATIC BLACK BEAR (Ursus thibetanus) **RED PANDA** (Ailurus fulgens) 17 2 LEOPARD CAT (Prilonarius bengalensis) JUNGLE CAT (Chaus chaus) 1 2 HIMALAYAN PALM CIVET (Pamuga larvata) COMMON GREY LANGUR (Seminopithecus entellus) 4 8 ASIAN PALM CIVET (Paradoxurus hermophroditus) SLOW LORIS (*Nycticebus coucang*) 1 8 HIMALAYAN GORAL (Nemorhaedus goral) 8 HIMALAYAN THAR (Hemitragus jemlahicus) 11 BLUE SHEEP (Pseudois nayaur) 3 SAMBAR DEER (Cervus unicolor) 10 BARKING DEER (Muntiacus muntjac) 5 MARKHOR (Capra falconeri) 2 YAK (Bos grueins) **TOTAL MAMMALS** 111 REPTILES 2 STAR TORTOISE 2 Indian rock python (*Python molours*)

RUSSELL'S VIPER (Eryx johnii)

INDIAN SAND BOA

TOTAL REPTILES

TOTAL ANIMALS

- a) Amphibian : 29 b) Pheasants/Birds : 192 c) Mammals : 111
- d) Reptiles : 9
 - TOTAL ANIMALS : 341

2

3

9

| HISTORY SHEET OF ENDANGERED ZOO ANIMALS FOR THE YEAR 2015-2016 Red Panda (Ailurus fulgens) | | | | | | | | |
|---|---------------------------------------|--------------------|-----------------------|-----------|---------|---------------|----------------|--|
| House Name | Sex | Int. Stud Book No. | Transponder No. | Sire | Dam | Date of Birth | Place of Birth | |
| Balam | М | 15117 | | Kaijalee | Janaki | 07.06.2015 | PNHZ Park | |
| Prashana | F | 15118 | | Ram | Shova | 16.06.2015 | PNHZ Park | |
| Joel | М | 15120 | | Shifu | Sheetal | 14.07.2015 | PNHZ Park | |
| Noel | М | 15119 | | Shifu | Sheetal | 14.07.2015 | PNHZ Park | |
| | | Blue | Sheep (Pseudois | s nayaur |) | | | |
| House Name | Sex | Int. Stud Book No. | Transponder No. | Sire | Dam | Date of Birth | Place of Birth | |
| Umang | М | | | Neel | Bubbly | 22.05.2015 | PNHZ Park | |
| Unnamed | М | | | Moon | Venus | 22.05.2015 | PNHZ Park | |
| | | Himalayan | Tahr(<i>Hemitrag</i> | gus jemla | thicus) | | | |
| House Name | Sex | Int. Stud Book No. | Transponder No. | Sire | Dam | Date of Birth | Place of Birth | |
| Anita | F | | | Sushil | Sania | 18.05.2015 | PNHZ Park | |
| Unnamed | F | | | Somdev | Sania | 20.05.2015 | PNHZ Park | |
| Unnamed | М | | | Sushil | Sania | 21.05.2015 | | |
| 6.1. VISITORS | CHAPTER 6 5.1. VISITORS STATISTICS | | | | | | | |

The visitor flow for last six years was as below-

| MONTH | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-2015 | 2015-2016 |
|----------------|---------|---------|---------|---------|---------|---------|-----------|-----------|
| April 2015 | 27549 | 28187 | 52834 | 35788 | | 50308 | 56,464 | 58834 |
| May 2015 | 48325 | 49775 | 55587 | 61977 | 83161 | 73933 | 95,663 | 79190 |
| June 2015 | 15867 | 47202 | 30112 | 60810 | 67198 | 95371 | 74,188 | 60651 |
| July 2015 | 2974 | 7779 | 12267 | 19119 | 18120 | 13825 | 25,290 | 18628 |
| August 2015 | 6929 | 8646 | 8133 | 14191 | 15208 | 476 | 18,514 | 17514 |
| September 2015 | 11782 | 20723 | 13584 | 17862 | 16251 | 6465 | 20,515 | 24536 |
| October 2015 | 37047 | 42257 | 39869 | 63237 | 48415 | 32512 | 67,441 | 56990 |
| November 2015 | 23018 | 25644 | 31386 | 35463 | 43510 | 25589 | 42,119 | 45223 |
| December 2015 | 20478 | 19703 | 27950 | 35503 | 40474 | 34069 | 46,993 | 46270 |
| January 2016 | 10198 | 15716 | 12321 | 25599 | 26011 | 23406 | 29,550 | 37795 |
| February 2016 | 9078 | 16027 | 5680 | 20574 | 19443 | 19494 | 26,344 | 31113 |
| March 2016 | 17291 | 26458 | 20615 | 36545 | 41814 | 47256 | 48,738 | 64635 |

| MONTH | NO. OF INDIAN VISITORS | NO. OF FOREIGN VISITORS | TOTAL VISITORS | REVENUE EARNED (Rs) |
|----------------|---------------------------|----------------------------|----------------|------------------------|
| April 2015 | 57244 | 1590 | 58834 | 12,24,380.00 |
| May 2015 | 78424 | 766 | 79190 | 16,06,780.00 |
| June 2015 | 60302 | 349 | 60651 | 12,23,490.00 |
| July 2015 | 18314 | 314 | 18628 | 3,81,980.00 |
| August 2015 | 17016 | 498 | 17514 | 3,65,220.00 |
| September 2015 | 23675 | 861 | 24536 | 5,16,550.00 |
| October 2015 | 54918 | 2072 | 56990 | 12,01,960.00 |
| November 2015 | 43325 | 1898 | 45223 | 9,61,400.00 |
| December 2015 | 45479 | 791 | 46270 | 9,49,130.00 |
| January 2016 | 37024 | 771 | 37795 | 7, 79,030.00 |
| February 2016 | 29867 | 1246 | 31113 | 6,59,640.00 |
| March 2016 | 62872 | 1763 | 64635 | 13,45,590.00 |
| | | | | 1,12,15,150.00 |

6.2 What the visiting Dignitaries had to say:-

| Date of Visit | Name of the Visitor and Designation | Remarks |
|---------------|--|--|
| 04.05.2015 | Mr. Sushil Srivastava , IFS PCCF, HoFF Himachal Pradesh | An outstanding place which is a must for anyone visiting Darjeeling. Extremely well kept and well planned for which full marks to energetic dynamic and very knowledgeable Director Shri Piar Chand and his team. I wish them all the very best. |
| 12.05.2015 | Mr. S. Khamar , WBJS Judge, Industrial Tribunak (3 rd) Kolkata. | This is a nice place for visiting of everyone who comes to see Darjeeling. The authority is well maintaining this place. I advice everyone including me to do our duties properly to make our nation good and to resolve all problems raising our head high. |
| 13.05.2015 | Mr. K.S. Samant , IFS CCF/Director Uttarakhand Forestry Training Academy, Uttarakhand | I have visited Padmaja Naidu Himalayan Zoological Park twice, once during my training 1979-81 and again with FRO trainees of UFTA along with Dy. Director, YFTA. PNHZ Park is now emphasizing for the breeding of Red panda, snow leopard. PNHZ park Director and Education officer has presented a case study of Red panda to our FRO Trainees. Very nice to see Red Panda, Snow leopard and many carnivore and herbivore even birds. Park management has kept the zoo efficiently and carefully. |

| Date of Visit | Name of the Visitor and Designation | Remarks |
|---------------|--|---|
| 20.05.2015 | Dr. V.K. Saraswat , Member Niti Aayog Parliament Street, New Delhi | I am really delighted to see the zoological park set up for nurturing the Himalayan Biological Species. It was highly educative and for my grand children it was fun. I am happy to see the professional upkeep of the zoo. The research activities are of very high standard and scientists are eager to take it to international standard. It is time we provide higher level of funding to improve the standard and provide better facilities. I congratulate the team for their outstanding work and wish them all the best in their future endeavours. God bless you all. |
| 29.05.2015 | Dr. U. R. R. Singh IFS | Very comfortable stay. Enjoyed the Darjeeling climate. The zoo is very well maintained. I compliment the Director and his team for the outstanding management of the zoo and receiving wide variety of visitors in the zoo and fulfilling their expectation. I wish all the success. |
| 25.11.2015 | Ms. Ashwika Kapur Wildlife Filmaker Recipient of Green Oscar | My heartiest congratulations to the Darjeeling Zoo team for their immense dedication towards the upkeep of the breeding projects here. The Darjeeling Zoo's work makes me very proud as a conservationist. Keep up the super work. |
| 25.03.2016 | Dr. Kailash Chandra Director Zoological Survey of India, Kolkota | I compliment Zoo Authority (PNHZP) Darjeeling for showing me and my family all the enclosures and details of all the species particularly inhabiting Himalayan Region. Although ZSI has been extending all sorts of identification services of seized wildlife material to West Bengal Forest Department, but also like to expand the collaborative activities for phylogeny of species of Himalayas. Thanks to Ms. Upashna for the hospitality. |
| 25.03.2016 | Dr. Indrani Das Head of the Department, Department of Botany, S.A. Jaipuria College Kolkata | An excellent place to get all kind of goodness. Animals are kept in good condition. One of my memorable days i have ever spent. |
| | | |

CHAPTER – 7 **A Brief History of Dowhill and Topkedara**

Dowhill Satellite Park, Kurseong.

Dowhill Deer Park, Kurseong is located at uphill of Kurseong town, 4 km away amidst hilly forested tracts under Kurseong Forest Division. It was established in 1980 over 5.2 hectares of land. The Deer Park before housed Yak, Barking Deer, Mountain Goat, Rabbit. There is one abandoned Interpretation Center 8m x 8m. At present 2 CDL Quarter and a Rest Shed is on the other side of the Park. There is one shed near the gate. Before the Deer Park was managed by a Beat Officer assisted by two Group 'D' Staff and 3 daily wage worker. Most of the area of the existing deer park is mainly covered with thick wood having steep slope.

NEED TO DEVELOP THE DEER PARK, DOWHILL, KURSEONG AS SATELLITE ZOO.

Eastern Himlayan Zone, notably, Sikkim & Darjeeling forest are rich in biodiversity. Some hervibore species are rare and endemic and in the wild, their population is in dwindling state. A huge and partial infrastructural facility for creation of pheasantry and other breeding projects, so with the renovation of existing infrastructure conservation breeding of different herbivore and pheasants species can be done.

PLANNING FOR EXTENSION ACTIVITY OF PROPOSED SATELLITE ZOO, DOWHILL, KURSEONG.

In XXVIII Annual General Body Meeting and XXXIII Governing Body Meeting, the animal collection plan of this zoo was reviewed for inclusion in animal and birds collection plan of the zoo which may be kept in the proposed Satellite Zoo, Dowhill, Kurseong.

With reference to the Principal Conservator of Forests, West Bengal vide Letter No. 4428/CS/2M - 379/08 dated 29/09/08, and area of 4.65 hectares and 1.28 hecters of forest land under Kurseong Forest Division has been handed over for construction of Satellite Zoo and staff quarters respectively to Padmaja Naidu Himalayan Zoological Park, Darjeeling to develop it into a satellite zoo for the purpose of pheasantry as well as conservation breeding projects as dated 25/02/09.

After the handing of the Deer Park, Kurseong to PNHZ Park following work has been initiated.

- 1. Area Survey of Dowhill Eco Park.
- 2. Contouring of the Dowhill area has been done indicating landforms and elevations, hydrography, transportation, vegetation boundaries, urban areas, buildings and a variety of other features.
- 3. Construction of aviary, herbivore enclosures, staff quarters, Dy. Directors residential quarter, construction of suspension bridge.
- Transfer of animals –Himalayan Monal, Golden Pheasant, Lady Amherst Pheasant, Satyr tragopan, Silver pheasant, Temminck's tragopan,Kaleej pheasant, Blue sheep, Himalayan Thar, Barking Deer, Himalayan goral.
- 5. The breeding centre has been doing remarkably well with successful births of endangered high altitude herbivores.
- 6. Births of exotic and indigenous pheasants have also taken place

- 7. Taking a step further ahead in the Conservation Breeding of pheasants, the Park has come up with a 2-unit pheasantry at the Pheasants and Herbivores Breeding Centre, Satellite Facility, Dow Hill, Kurseong adjacent to the previously constructed 7-unit pheasantry, complete with chick rearing and artificial incubation rooms, covering an approximate area of 426.43 sq. m.
- 8. Electrification of the chick rearing house complete and made functional.

CONSERVATION BREEDING CENTRE FOR SNOW LEOPARD AND RED PANDA AT TOPKEDARA

5 hctrs of land in Topkedara block under Senchal Wildlife Sanctuary has been handed over to Padmaja Naidu Himalayan Zoological Park for the construction of the off- display Conservation Breeding Centre for Snow leopard and Red Panda. The area was inspected by the Chief Conservator of the Forests/Wildlife (North and Director/PNHZ Park on 30 November 2010. Survey of the area has been completed and contouring of the area is in process.

The new off-display Conservation Breeding Centre for Snow leopard (*Uncia uncia*) and Red Panda (*Ailurus fulgens*) at Topkedara funded by the Govt.of West Bengal and Central Zoo Authority, MoEF was inaugurated on 08.10.2013 by the Honorable Minister in Charge (Forest) Shri. Hiten Barman along with North Bengal Development Minister Shri. Gautam Deb. The inauguration was followed up by the release of a pair of Snow leopard (*Uncia uncia*) by the two ministers.

Two new enclosures each have been constructed at Topkedara for the Red Panda and Snow leopard. The two new enclosures for Red panda is 210 sq meters each and that for the snow leopard is 680 sq m each. After the completion of the two red panda enclosures appropriate enrichments like aerial walkways, breeding boxes, resting shades were put up in both the enclosures. Two pairs of red pandas have been shifted on **07.12.2015** in the enclosures.

BENGAL NATURAL HISTORY MUSEUM

With the establishment of the Northern Bengal State Railway in 1878 and connection with Darjeeling in 1881 with the name Darjeeling Himalayan Railway the popularity of Darjeeling as Hill Station spread eventually and visitors began thronging the Hill Station, many were amazed by the faunal diversity of this place. As recorded during that period the mammalian species comprised between 80-90 species including some of the rarer cats, pandas and the Himalayan flying squirrel. About 450 species of birds- nearly one- fifth of the total species found in the Indian sub- continent, 100 species of Snakes, exceedingly rich in insects and butterflies.

With this richness in 1903 the Lt. Governor of Bengal intimated the Govt. of India of his idea of starting a small Museum at Darjeeling allowing the visitors to the hill station an opportunity to obtain information about Birds and Butterflies of the district.

A suitable site was chosen in the Lloyd's Botanical Garden and a building was constructed for the purpose. The Museum was looked after by the committee comprising the Dy. Commissioner, Tea Planter, a vice Chairman of Darjeeling Muncipality, Dy. Conservator of Forest and Executive Engineer. This arrangement proved unsatisfactory and in 1915 Lord Carmichael, Governor of Bengal took and interest in the Museum and the present building was completed in 1915. The maintenance was still a problem and inspite of approaching the Indian Museum, Calcutta and the Zoological Survey of India the offer was turned down for the upkeep of the Museum. It was finally decided that the Bengal PWD would be responsible for the building; the committee for arrangement direly saw the requirement of a Curator. In 1922 it was proposed that a Natural History Society should be established to take over the Museum and be responsible for its maintenance and the publication of small quarterly periodicals. Thus Darjeeling Natural History Society was accordingly formed which took over the management of the Museum in 1923 with the aims and objectives as follows:

To promote the study of Natural History of Northern Bengal and Eastern Himalayas and to get together a representative collection of the fauna of North Bengal and the adjoining

| SI. No. | Items | Species |
|------------|-----------------|---|
| 1 | Skull | Ibex, Blue sheep, Great Tibetan sheep, Marcopolo sheep, Takin, Serow, Goral, Shapu, Black buck, Tibetan Antilope, Shou, Shamber Deer, Spotted Deer, Indian Gaur |
| 2 | Anklers | Barasingha, Shou, Barking Deer, Hog Deer, Kashmir stag, Sambhar Deer, Spotted Deer |
| 3 | Horns | Goral, Black buck, Indian Gazella, Nilgiri Thar |
| 4 | Head mount | Nilgiri Thar, Indian Gazella, Black buck, Barasingha, Barking deer, Hog deer, Kashmir stag, Shamber Deer, Spotted Deer, Indian gaur, Wild Buffalo, Indian Wild Boar, Tiger, Asiatic Black Bear, Snow Leopard, Yak |
| 5 | Full body mount | Clouded Leopard, Royal Bengal tiger, Common Leopard, Spotted Deer Calf, Yellow Throated Martin, Asiatic Black Bear, Red Panda, Eastern Pangolin, Common Indian Mongoose, Estuarine Crocodile |
| 6 | Skin | Monitor Lizard, Royal Bengal Tiger, Snow Leopard, Otter, common Leopard, Asiatic Black Bear, Shamber, Spotted Deer, Himalayan Palm Civet, Martin, Yak, Goral, Leopard Cat, Flying Squirrel, etc. |
| 7 | Tusk & Feet | Elephant |

| SI. No. | Items | Species |
|------------|----------------------------|--|
| 8 | Birds | Mynas, Night jar, Thrush, Warblers, Flycatchers, Kingfisher, Snipe, Wood peckers, Birds of prey, Swifts, Niltava, Water birds, Barbets, Hornbills, Cuckoos, parrots & Parakeets, Owls, Minivets, Fantails, Chats, Robin, Buntings, Sunbirds, Broadbills, Finches, Nutcrackers, Suthora, Jay, Weaver birds, Munia, Sparrows, Swallows, Shrikes, Leothrix, Cutia, Barbing, Bablers,Larks, Vulture, Bustards, etc. |
| 9 | Pheasants | Koklas, Satyr Tragopon, Red Jungle Fowl, Himalayan Monal, Indian Peacock, Mrs. Hume Barred Backed, Cheer |
| 10 | Nest | Warblers, Flycatcher, Thrush, Tit, Bablers, Chat, Flowerpeckers, Bulbul, Finch, Swift |
| 11 | Eggs | Thrush , Jacana, Kingfisher, Mynas, Bushchat, warbler, Plover, Curlews, Weaver, Partidge, Robins, Cracke, Baye, Kite, Koel, Pheasant, Owl, White eye |
| 12 | Dragon, Flies & Insects | Cicadidae, Fulgaidae, Pentatoenidae, Cosmomcorta, Longicora, Coleoptera, Elatridae, Chycomellidae, Curculionidae |
| 13 | Grasshoppers | |
| 14 | Moths | |
| 15 | Beetles | |
| 16 | Butterflies | Lime Butterfly, Western Courtier, Autumn Leaf, Blue Admiral, Plain Tiger, Blue Bottle, Red Helen, Paris Peacock etc. |
| 17 | Snakes | Vipers, Krait, whip Snake, Rat Snake, Cat Snake, Cobra, Coral Snake etc. |
| 18 | Fishes | Katla, Bagha, Chega, Pabda, Singhi, Magur, Tengra, Katle, etc. |
| 19 | Others | Green Turtle Star Fish, Giant Leech, Indian Salamander etc. |

Parts of Sikkim, Nepal and Bhutan.

- Maintaining the Natural History Museum
- To engage in such other acts as are incidental or conducive to the attainment of the above objects.

Mr. Charles M. Inglis, an amateur ornithologist was persuaded to accept the post of the curator. He served the Museum for 26 years from 1923- 1948 and built up the Museum by also adding his own private collection.

HANDING OVER OF BENGAL NATURAL HISTORY MUSEUM TO PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK

On the keen interest of the Ex- Governor of West Bengal Mr. Gopal Krishna Gandhi who wanted the museum to be shifted to Padmaja Naidu Himalayan Zoological Park, the museum was Officially handed over to the Park on 07.01.2010 till date which was directly under the control of the Wildlife Division I for its upkeep and maintenance and further upliftment of the museum in the near future Bengal Natural History Museum, Darjeeling, provides the keen visitors with precious knowledge on the natural world and resources, significant enough to generate the commoner's awareness about natural environ. Bengal Natural History Museum, Darjeeling, enchants visitors with a fascinating presentation of diverse nature, full of flora and fauna , the museum is not only important form the archaeological point of view, but also focuses on the process of natural evolution.

There are a wide variety of items in the exhibit area at present. An inventory of all the items on display including the stock has been prepared. Later these items have been digitized by photographing each items and also providing information's of the items thus making it easier to preserve, access, and share in the form of a book. The items at the museum includes Skull, Antlers, Horns, Head mounts, Full body mounts, Skin of different animals, Tusk & feet of Elephant, Birds, Pheasants, Nests and Eggs of various birds and Pheasants, Dragonflies, Insects, Grasshoppers, Moths, Beetles, butterflies, snakes, fishes etc.details as below.

During this annual the exhibit area was completed in the new building. The exhibit area was developed with the concept of showing the faunal diversity of eastern Himalayas including the lower plains. The exhibit begins with the history of the Bengal Natural History Museum, exhibits of the old stuffed specimens of birds, old publications, different types of ecosystems of West Bengal, Entomology section, bird section, Mountain ecosystem, display of mammals, skin, head mounts, skulls etc. the new museum also houses an auditorium for educational purposes. The exhibit items are being maintained with regular cleaning and frequent changing of the preservatives. Besides this other activities of the BNHM includes:

- 1) Digitization of the entire exhibit items completed.
- 2) Cleaning and repairing the stock items.
- 3) Stuffing of the new specimens- Red Panda, Pheasants etc.

The museum day to day work is supervised by the Research and education cell of the park with the help of Museum supervisor a taxidermist and two attendants.

BIODIVERSITY OF DARJEELING ZOO

BIRDS

| | Scientific Name | Local Name |
|----|--------------------------|----------------------------------|
| 1 | Aethopyga nipalensis | Green tailed sunbird |
| 2 | Alcippe castaneceps | Rufous winged fulvetta |
| 3 | Arachnothera longirostra | Little spider hunter |
| 4 | Certhia nipalensis | Rusty flanked tree creeper |
| 5 | Cissa chinensis | Common green magpie |
| 6 | Corvus macrorhynchos | Largebilled crow |
| 7 | Culicicapa ceylonensis | Gray headed canary flycatcher |
| 8 | Dendrocopos canicapillus | Grey-capped pygmy woodpecker |
| 9 | Dendrocopos darjellensis | Darjeeling woodpecker |
| 10 | Dendrocopos macei | Fulvous breasted woodpecker |
| 11 | Eumyias thallasina | Verditer flycatcher |
| 12 | Ficedula hyperythra | Snowy browed flycatcher |
| 13 | Ficedula westermanni | Little pied flycatcher |
| 14 | Garrulax erythrocephalus | Chestnut crowned laughing thrush |
| 15 | Gracula religiosa | Hill myna |
| 16 | Heterophasia capiatrata | Rufous sibia |
| 17 | Hypsipetes leucocephalus | Black bulbul |
| 18 | lcinaetus malayansis | Black eagle |
| 19 | Lanius tephronotus | Grey backed shrike |
| 20 | Leiothrix argentauris | Silver eared mesia |
| 21 | Minla ignotincta | Red tailed minla |
| 21 | Minla strigula | Chestnut tailed minla |
| 22 | Monticola rufiventris | Chestnut belliedrock thrush |
| 23 | Myiomela leucora | White tailed robin |
| 24 | Myophonus caeruleus | Blue whistling thrust |
| 25 | Niltava grandis | Large niltava |
| 26 | Orthotomus cuculatus | Mountain tailorbird |
| 27 | Parus monticolus | Green backed tit |
| 28 | Passer montanus | Urasian tree sparrow |
| 29 | Pericrocotus ethologus | Long tailed minivet |
| 30 | Pericrocotus flammeus | Scarlet minivet |
| 31 | Phylloscopus affinis | |

| | Scientific Name | Local Name |
|----|---------------------------|------------------------------------|
| 32 | Phylloscopus trochiloides | Greenish tree warbler |
| 33 | Picus chlorolophus | Lesser yellownape |
| 34 | Picus flavinucha | Greater yellownape |
| 35 | Psittacula eupatria | Alexandrine parakeet |
| 36 | Psittacula krameri | Rose ringed parakeet/ green parrot |
| 37 | Pycnonotus flaviventris | Black crested bulbul |
| 38 | Rhipidura albicollis | White throated fantail |
| 39 | Rhipidura aureola | White browed fantail |
| 40 | Rhyacornis fuliginosus | Plumbeous water redstart |
| 41 | Seicercus castaniceps | Chestnut crowned warbler |
| 42 | Sitta himalayensis | White tailed nuthatch |
| 43 | Tesia castaneocoronata | Chestnut headed tesia |
| 44 | Turdus boulboul | Grey winged black bird |
| 45 | Yuhina flavicollis | Whiskered yuhina |
| 46 | Yuhina gularis | Stripe throated yuhina |

FLOWERING PLANTS

| TREE | FLOWERING P | LANTS |
|------|---|------------------------|
| | | |
| | Scientific Name | Local Name |
| 1 | Acer campbellii Hk . f.& T. | Kapasi |
| 2 | Acer laevigatum W all. | Putli |
| 3 | Acer osmastonii Ga mble. | Kapasi |
| 4 | Acer thomsonii M iq. | Melo kapasi |
| 5 | Actinodaphne sikkimensis M e issn. | Siksiki / Phurke sissi |
| 6 | Alnus nepalensis D. Don. | Utis |
| 7 | Beilschmiedia sikkimensis Kin g. | Tarsing |
| 8 | Betula alnoides | Saur |
| 9 | Brassaiopsis hispida | Phutta. |
| 10 | Bucklandia populnea R.B r. | Pipli |
| 11 | Casearia glomerata Ro xb. | Barkaunle |
| 12 | Castanopsis hystrix A. DC. | Katus |
| 13 | Toona ciliata M .Roem. | Tooni |
| 14 | Cinnamonum bejolghata (Bu ch.Ham) Sweet | Bhale sinkoli |
| 15 | <i>Cryptomeria japonica</i> Do n. | Dhupi |
| 16 | Elaeocarpus sikkimensis Ma st. | Bhadrase |
| 17 | Engelhardita spicata Blu me. | Mauwa |
| 18 | Eriobotrya petiolata Hk .f. | Maya |

FLOWERING PLANTS

Local Name

Phaledo

Khanakpa Nevaro Dudilo

Dole malata Bangikath Hare/Lise.

Okhar

Ghurpis

Siltimur

Latikath

Bilaune

Chutro

Chinde

Angeri

Paiyun

Arupate

Amphi

Arkawla

Sanu malata

Lapche kawla

Lekh dabdabe

Tite champ

Rani champ

Lekh chilauna

Sanu jhingani

TREES

| | Scientific Name |
|----|--------------------------------|
| 19 | Erythrina arborescens Ro xb |
| 20 | Eurya acuminata DC . |
| 21 | Evodia fraxinifolia Hk .f. |
| 22 | Ficus hookeri M iq. |
| 23 | Ficus nemoralis W all. |
| 24 | Glochidion acuminatum Mu ell. |
| 25 | <i>Hovenia dulcis</i> Th unb. |
| 26 | <i>llex sikkimensis</i> Ki ng. |
| 27 | <i>Juglans regia</i> Li nn. |
| | |

28 Leuceptrum canum Sm .

29 . *Litsaea citrata* Bl ume.

30 *Macaranga denticulata* Mu ell.

31 *Macaranga pustulata* Ki ng.

32 *Machilus edulis* King.

33 Maesa chisia D on.

34 *Mahonia acanthifolia* G.D on.

35 *Meliosma wallichii* Pla nch.

36 *Michelia cathcartii* Hk .f.& T.

37 *Michelia excelsa* Bl ume.

38 Nyssa javanica W angerin

39 *Pentapanax leschenaultia* See m.

40 *Pieris ovalifolia* W all.

41 *Prunus cerasoides* Do n.

42 *Prunus nepaulensis* C. K.Schn.

43 *Pyrularia edulis* A. DC.

44 *Quercus fenestrata* Ro xb.

VIP VISITS





Visit of Dr. V.K. Saraswat, Member of Niti Ayog, to Padmaja Naidu Himalayan Zoological Park



Visit of to Padmaja Naidu Himalayan Zoological Park

Visit Of To Padmaja Naidu Himalayan Zoological Park Workshop And Training Programmes













104[™] BATCH Dr/Fr TRAINING, WEST BENGAL FOREST SCHOOL, DOWHILL









CENTRAL ACADEMEY FOR CFS, ASSAM



UTTARAKHAND FORESTRY TRAINING ACADEMY, HALDWANI









OUTREACH ACTIVITIES AND CONSERVATION EDUCATION





CELEBRATION OF WORLD ENVIRONMENT DAY





EDUCATIONAL TOUR OF MOUNT CARMEL SCHOOL





EDUCATIONAL TOUR OF LORETO CONVENT



EDUCATIONAL TOUR OF MANEBHANJYANG SCHOOL





EDUCATIONAL TOUR OF R.C. MISSION, MANEYBHANJAYANG





EDUCATIONAL TOUR OF, SOOM TEA ESTATE

AUDIT REPORT



P. DHAR & ASSOCIATES Charamed Accountants

INDEPENDENT AUDITORS' REPORT

Head Office : 221, Main Mandie Lanie, Katkata, 700 129 621, Main Mandie Lanie, Katkata, 700 129 564040 Q00ce : 274/1 Matutime Gandhi Hoad, Kradioa Maw Chine iran Honghy -712 101, 6, 0831991145 E-meil - ovaki, Chur & radifficiel.com

The Member Secretary, West Bengal Zoo Authority

We have audited the accompanying financial statements of **Padmaja Naidu Himalayan Zoological Park, Darjeeling**, ("the Park") which comprise the Balance Sheet as at March 31, 2016, and the Income & Expenditure Account for the year ended on that date, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position and financial performance of the Park in accordance with the accounting principles generally accepted in India along with the Accounting Standards issued by the Institute of Chartered Accountants of India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Park's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion.

Basis for Qualified Opinion

 non-ascertainment and non-provision of accumulated gratuity and leave encashment liability at the year-end on actuarial basis and its consequential impact of the statement of offairs for the year (Para 2 in Annexure to Audit Report);





P. DHAR & ASSOCIATES Chartered Accountents Head Office 221, Mart Mancie Laire Knichtz - 700 005 8 Janoch Office 2744 - Mahatma Grandhi Ford, Rhadina Mara Dhinbarah, Hooghy 718 10 - 6 (983/992146 E-rost pinaki dhar 9 sdriftnañ com

- non-ascertainment of actual valuation of stock of Animals and Birds and Its consequential impact of the statement of affairs for the year (Pt. 6 of the Notes on Accounts in Note G)
- nan-capitalisation of outstanding advances and its consequential impact on the state of
 affairs(Para 4 in Arinexure to Audit Report);
- non-adherence to the Accounting Standard 12 on Government Gronts, particularly with respect to the grant against capital expenditure and its consequential impact on financial statements. (Para 6 in Annexure to Audit Report)
- non-updation of Fixed Assets Register and non-verification of Fixed Assets acquired prior to 2015-16 and its consequential impact on the affairs of the Park (Para 3 in Annexure to the Audit Report)
- non-occounting of refundable Earnest Money received from unsuccessful tender bidders (Para 13 in Annexure to the Audit Report)

Opinion

In our opinion and to the best of our information and according to the explanations given to us, except for the effects of the motter described in the Basis for Qualified Opinion paragraph, the financial statements give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) In the case of the Balance Sheet, of the state of affairs of the Padmaja Naidu Himalayan Zoological Park, Darjeeling as at March 31, 2016; and
- (b) in the case of the locome and Expenditure Account of the Padmaja Naidu Himalayan Zoological Park, Darjeeling, of the statement of affairs for the year ended on that date;

Further to our comments in Annexure to the Audit Report, we also report that:

- We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
- In our opinion proper books of account have been kept by the PNHZ Park so far as appears from our examination of the books;
- The Balance Sheet, the Income and Expenditure Account and the Receipts and Payments Account dealt with by this report, read with the Annexure to the Audit Report and Notes on Accounts, are in agreement with the books of account;

Place: Kolkata Date: 14.02.2017





Head Office -321, Main Marchington, Kokata - 700 236 Branco Office -7243 Mahatma Gerula Rowi, Khadimi More Chinasimi, Hooghie - 712 101 92 - 3831/822146 E-mail pinose data Bradifinal nom

Padmaja Naidu Himalayan Zoological Park, Darjeeling

ANNEXURE TO AUDIT REPORT FOR THE YEAR ENDED 3157 MARCH, 2016

- According to the Accounting Policy, all liabilities and receivables for the year were
 considered in the accounts under audit. The policy was however, not followed in the
 preceding year and as a result, the current year accounts include the payments / earnings
 made for the preceding year also. The net financial impact of the same is not readily
 ascertainable.
- The actuarial liability towards gratuity and leave encashment, in accordance with Accounting Standard (AS-15) on Employee Benefits, as on 31st March, 2016 remains unascertained and hence unaccounted for. We have been informed that since the PNHZ Park, being a part of West Bengal Zoo Authority, the same would be provided for at their end.
- The fixed assets purchased during 2015-16, as informed by the management, have been
 physically verified during the year under audit. However, Fixed Assets acquired prior to
 2015-16 were not physically verified as informed. The Fixed Assets Register as maintained
 by the Park was found to be pending as on date.
- In the absence of the completion as well as handing over of certificates the following advances against capital nature of expenditure have not been capitalized since long:
 - a) Advance to Executive Engineer, P.W.D.
 Rs. 9.27 Lakhs

 b) Advance to Hill Development Work, P.W.D.
 Rs. 9.84 Lakhs

 c) Advance to Electric Dvn. Siliguri, P.W.D.
 Rs.0.64 Lakhs

 d) Advance to Executive Engineer, PHE
 Rs.4.05 Lakhs

Immediate steps should be taken to adjust/settle/reconcile the above advances, which are lying unadjusted for more than a decade.

 Beconciliation of Advance to Staff, with respect to the very old outstanding amounting to Rs. 65,531.50, remaining unadjusted / unrealized since considerable period, has not been made in view of the absence of any documentation/ records etc. Further, no provision has been in accounts in respect of the said amount.

An advance of Rs. 3,92,272.00 receivable from Mr. A. K. Jha, Ex-Director of the Park is lying unadjusted since long.



P. DHAR & ASSOCIATES Chartered Accountants

Brance Other 174/1 Mahatma Gandhi Fulei, Khasha More Chinalash, Nooshy - 712 (01, 40, 9031992146 - maili - protei pharthranar both

Head Office

 The society does not maintain separate accounts for plan funds as well as non plan funds as received from WBZA, both the funds are transferred by WBZA in one bank account i,e SBI, Darjeeling as maintained by the Park. Expenditure are met from the said account.

-2-

 The forest land as transferred to the park includes some parts in the possession of the fixed demand holders from which the park has not collected any rent nor renewed their licenses since 2000 subsequent to the direction of the Forest Department, West Bengal under Forest Conservation Act, 1980. In our opinion, steps should be taken to regularize the same.

· In terms of the change in basis as well as rate of depreciation from earlier year, depreciation for the year was decreased by an amount of Rs. 5,42,417.40 which has a consequential impact of the statement of affairs for the year and corresponding value of the related assets at the Balance Sheet date (refer to Para 10 in Notes on Accounts in Note G

- Depreciation on False Ceiling and on Library Books has been charged on 100% hasis during the year as per Management Policy (refer to Para 11 in Notes on Accounts in Schedule - G)
- Income Tax on payments (Rs 1,62,971/-) made to ABP Ltd. on account of Advertisement was not deducted.
- · No Internal Audit was undertaken for the year. Considering the volume and nature of transactions, an in-depth internal audit is very much required to have proper internal control.
- · Confirmation of depositing Provident Fund on payment for labour supplied by the putsourcing agency namely Sri Manoj Gurung, Darjeeling was not available with the Park and the consequential liability of the Park, if any, could not be readily ascertainable.
- · Earnest Money received from Tender Bidders for Rs. 16.95 lakhs lying with PNHZP Authority as on 31.03.2016 (refundable to the unsuccessful bidders), was neither deposited into bank nor accounted for.

Place: Kolkata Date: 14.02.2017 P DHAR, Partner

Membership No. 059194 P DHAR & ASSOCIATES CHARTERED ACCOUNTANTS FRN: 325149E

Je Contraction 4 33,55,179,50 8,95,517,70 25,51,66,310.71 1,38,82,739.04 23,44,83,610.57 10. CH 11C 25 Amnumt [Rc] Elpolhi 72,267,500 8,097,108,00 1,095,16,507,05 70,002,006,005 1,55,783.00 Amount [Re.) For P. OHAR & ASSOCIATES Firm Rep. No. 325149E Chartened Accordingness For F. Blanc, Associate (pp)Most op-dynaberskip No. pp)Most op-dynaberskip No. U.S. No. 0581104 MUTT -23.754.00 Gain in Hand \$50.00° to dise set of the - 2 minimum 77.769 \$40.00° to dise set of their AC No.-120821265322 601282.00 These of their AC No.-120821265322 Gurrent Austry, Loans & Advantance Animals & Birtle (lose (Acris) Becarts Closing Roome-PADMAJA NAIDU HIMALAYAN 200LOGICAL PARK 1,07,04,214.50 640am Cuang South Merkene S.11,720.48 Source in Shop Filed Aspens Planet Annets Balance Sheet As At 31St March, 2016 WEST BENGAL ZOO AUTHORITY 85 255 66, 81 17 18 , 75, 25, 25 377.542.005.000.005 0511110520 1,07,04,214,50 Amount (Ro.) Amount (Ro.) Reviews Year C0.258,FL0FT 10.02,459.03 16,28,431.00 20,27,33,439,04 18'86"-19'16'1 Kyadon Member Societad 11.65.111.00 1,62.400.00 12,23.000.00 46, 58,776,000 26,19,201,00 36,71,01,00 t -104 -5 -** 3 1 Farners Money Ao act Last Accounts Addr-filesched During Yeer Loos: Roth of dod During The Yeer Socially Money An per trait Accounts. And: Hoosted During Year Jess - Rehunded During the reat-Control Zoo Aurbority Plan Fund Weet theopy CONT Plan Dund 6000 Tolliontion Rom Turners Durberding Leftitien for Log Paimeer Paimeer Concerningerment. Paimeer Pail 1 FNH2P DOVE Opmont First Lishilius Dimerts Twee (TDA) Pathor Soundy hand Current Linkingerutos tel Aucturta CONFUS AUMDS OTHER FUND mart 1016,578 AF 22,27,40,129 54 \$0.000 PC/25'S OURFELLS. 21.56,101.00 41,10,779,00 24,73.60,865.96 Freetoca Year

| 6ª | | | | | | 8 | | | | | | | | |
|----------|---|----------------|-----------------|--|-------------------------------------|----------------|-----------------|---|----------------|-----------------|---|-------------------------------------|--|-------------|
| | | | | ġ | | | | | | | 21 | | 10000000000000000000000000000000000000 | Samuel Para |
| | | Amount (in Rs) | 25,27,40,129,54 | | | 1,23,05,288.51 | 26,50,45,418,05 | | Amount (in Rs) | -3,72,74,418.04 | | 1,81,07,219:22 | -1,91,67,198.82 | |
| | gical Park Id as on 31.03.2016 | Amount (in Rs) | | 1,31,36,198.00 53,06,000.00 1,23,20,206.00 | 1,84,57,115.49 | | | coological Park s on 31.03.2016 | Amount (in Rs) | | 14,04,828.00 5,62,000.00 7,94,00,000.00 | 6,32,61,108.78 | | |
| а (4) | Note-A Padmaja Naidu Himalayan Zoological Park PNHZP Development Fund as on 31.03.2016 | Particulars | OPENING BALANCE | Add During the Year Plan Fund Central Zoo Authority Plan Fund Govt Of West Bengal Plan Fund West Bengal Zoo Authority | Less:- Depriciation of Fixed Assets | | Closing Balance | Note-B Padmaja Naidu Himalayan Zoological Park PNHZP Society Fund as on 31.03.2016 | Particulars | OPENING BALANCE | Add:- During the Year Non-Plan Grant form Govt OF West Bengal Non-Plan Grant form Govt OF India Non-Plan Grant form WBZA Sale of Fixed Assets | Less:- Transferred to Non-Plan Fund | Closing Balance | |

| 100 | |
|-----|--|
| Y | |
| _ C | |
| 10 | |
| - | |
| - | |

Padmaja Naidu Himalayan Zoological Park Schedule of Fixed Assets as an 31.03.2016

DEPRECIATION FOR THE YEAR ENDED 31ST MARCH' 2016

| | | W.D.V. AS | ADDITION | ADDITION | DIAL | DEFRECIATION | W.U.Y.VBURE |
|--|-------------|----------------|---|---|---|-------------------|--------------------|
| DESCRIPTION OF ASSETS | RATE | NO | OF TO | AFTER | AMOUNT | DURING | AS ON |
| | D | 01.04.2015 | 30.09.2015 | 30.09.2015 | | THE YEAR | 31.03.2016 |
| a strategy and a | And council | | 100 | 10 | ALL | The second second | A - AN LOCATION OF |
| vic Conditioner | 10% | 8,43,750.00 | 5. | Sec. | 8,43,750.00 | 84,375,00 | 7,59,375.00 |
| Animal & Birds Enclosure | 2% | 1,78,66,280.51 | 16,75,198.00 | 86,80,878.00 | 2,82,42,356.51 | 11,95,096.00 | 2,70,47,260.51 |
| Audio Visual./ Music System | 10% | 10,25,683.68 | 19 - S | Di Pressione | 10,95,683.68 | 1,03,568.00 | 9,86,115.58 |
| Binocular | 10% | 6,94,348,20 | 2 | | 6,94,348,20 | 69,435.00 | 6,24,913,20 |
| Boundary | 85 | 3,02,25,414.74 | | 1 × 1 | 3,02,25,414,74 | 15,11,271,00 | 2,87,14,143.74 |
| Duilding & Sheds | 5% | 6,19,24,450.11 | 41,24,811.00 | 40,89,055.00 | 7,01,38,316.11 | 32,04,669.00 | 5,67,33,527.11 |
| Careless Digital Throne | 10% | 13,410.00 | 100 | 1.1.1 | 13,410.00 | 1,341.00 | 12,065.00 |
| Erpets | 10% | 768.13 | | | 768.13 | 21,00 | 61.13 |
| CCTV System & Networking | 10% | 1,06,83,554,38 | | 4,48,200.00 | 1,12,31,794,38 | 10,90,709,01 | 1,00,41,025,38 |
| Coffee Machine | 10% | 16,415,10 | 22 | | 16,415.10 | L,642.00 | 14.773.10 |
| Compluter System | 80% | \$2768/16/11 | 100.249,944,00 | 3,01,472,00,5 | 37,45,308,25 | 18,54,943.00 | 13,305,365,25 |
| Dehumidifter | 15% | 1,93,363.50 | 17,27,450.00 | Sector and | 19,10,859.50 | 2,86,629.00 | 16,24,230.50 |
| Digital Camera | 10% | 20,80,797,26 | 00'000'66 | 11 | 11,74,797,26 | 1,17,480.00 | 10,57,317,26 |
| Electric Installation | 10% | 1,45,13,774.73 | Section of the | 22,80,442.00 | 1,65,94,216.73 | 15,55,400.00 | 1,50,38,816.73 |
| fascope & Endovicion System | 80% | 2,11,043.02 | | | 2,21,043.02 | 1,26,626.00 | 84,417.02 |
| EPSBX / Intercom Telephone | 15% | 1,58,688.00 | + | 10 | 1,68,688.00 | 25,303.00 | 1.43,385.00 |
| Falae Ceiling | 100% | 12,92,7/0.80 | | 2.4 | 12,92,770.80 | 12,92,770.80 | |
| ax Machine and Phone | 15% | 41,445,68 | 11 11 11 11 11 11 11 11 11 11 11 11 11 | 17,535,00 | 58,980.68 | 7,532,00 | 51,448.68 |
| Fire Extinguisher | 15% | 3,87,519.53 | 部 | | 3,87,519.53 | 58,128.00 | 3,29,391.53 |
| Fish Aquarium | 80% | 4,25,421.36 | | | 4,25,221,36 | 0,55,253.00 | 1,70,168.36 |
| fitness Equipments | 15% | 79,712.35 | 1.1 | | 79,712.95 | 11,957.00 | 67,755.95- |
| Humiture | 10% | 40,92,676,71 | 26,300.00 | | 41,18,976.71 | 4,11,898.00 | 37,07,078.71. |
| Generator | 15% | 28,94,476.33 | | 7 | 28,94,476,33 | 4,34,171.00 | 24,60,305,33 |
| Ceyser | 10% | 1,33,306.35 | 14,400.00 | 12,361,00 | 1,60,069.35 | 15,389.00 | 1,44,680.35 |
| Heater | 10% | 17,721.73 | 1 Stations | | 17,721.73 | 1,772.00 | 15,949.73 |
| Himalayan Nature Into Center | 10% | 5,07,768.73 | В. | 0 | 5.07,768.73 | 50,777,00 | 4,56,991.73 |
| hybride Solar Ught | 10% | 30,46,396.50 | 1.4 | | 3D,46,396.50 | 3,04,640.0D | 27,41,756.50 |
| Incinerator Machine | 15% | 5,09,758.88 | 143 | 57 | 5,99,758.88 | 89,964.00 | 5,09,794.88 |
| inverter | 10% | 48,194,00 | | 14 - 14 - 14 - 14 - 14 - 14 - 14 - 14 - | 48,195.00 | 4,820.00 | 43,575,001 |
| Kitchen Appliances | 15% | 1,95,111.00 | 200 | | 1.95,111.00 | 29,267.00 | 1,05,844.00 |
| tabel Printer | 60% | 6,42,015.00 | 1000 | | 6,42,025.00 | 3,85,209.00 | 2,56,806.00 |
| Laboratory Equipments | にお | 02/21E/20/2 | | - | 5,07,332,70 | 76,097,00 | 4,31,215,70 |
| nd & Land Bouelanment / Freichmant | | 2,20,18,612,45 | The second se | 0. | 2,20,18,612.45 | Contraction of | 2.20.18,612.45 |



| Ubrary Books | 100% | 17,522.69 | | | 1,77,522.69 | 1,77,522.69 | |
|--------------------------------------|------|-----------------|----------------|----------------|-----------------|----------------|-----------------|
| Machinery & Equipments | 15% | 1,58,310.00 | 12,82,857.00 | + | 14,41,167.00 | 2,16,175.00 | 12,24,992.00 |
| Metal Detector | 10% | 2,05,519.96 | | 1.5 | 2,05,519.05 | 20,552,00 | 1,84,967.99 |
| Motor Car & Tailer | 30% | 3.26,533.02 | | | 3,26,533.02 | 00'096'/6 | 2,26,573.02* |
| Projector | 80% | 5,26,493.93 | æ | 2 | 3,96,493.93 | 2,37,696.00 | 1,58,597,93 |
| Phiblic Address System | 10% | 6,48,000.00 | | | 6,48,000.00 | 64,800.00 | 5,83,200.00 |
| Publication & Signage | 5% | 81,75,735.10 | 13,36,301.00 | 73,584.00 | 05,85,620.10 | 4,77,441.00 | 91,08,179.10 |
| Reinigerator | 10% | 2,72,842.16 | | 14,500.00 | 2,87,342.16 | 28,009.00 | 2,59,333.16 |
| Road & Fencing | 5% | 1,44,15,705.68 | | | 1,44,15,705.68 | 7,20,785.00 | L36,94,920.68- |
| Sanitation Sys. For Animal Enclosure | 5% | 1,03,10,577.12 | | | 1,03,10,577.12 | 5,15,529,00 | 97,95,048.12 |
| Showcase | 950T | 37,34,181.00 | - | | 37,34,181.00 | 3,73,418,00 | 33,60,763.00 |
| Snake Tone | 5% | 14,700,002 | | - | 14,700.00 | 735.00 | 13,965.007 |
| Stabfier | 10% | 8,255.56 | | 1 | 8,255,56 | 826.00 | 7,429.56 |
| Suspension Bridge | 5% | 20,15,365,30 | | 1000 C | 20,15,385.30 | 1,00,769.00 | 14,616.30 |
| Felevision | 10% | 15,06,073.53 | 14,900.00 | 通 | 15,20,973.53 | 1,52,997.00 | 13,68,876.53 |
| Thermotiversetabs | 10% | 1.653.30 | | allente - | 1,653.30 | 165.00 | 1,488.30 |
| voe Avritter | 15% | 1,409.09 | | 240 | 1,409.09 | 211.00 | 1,198.09 |
| Vaccum Cleaner | tox | 8,395.15 | | - 20.00 | 8,395.15 | 840.00 | 7,555.15 |
| Vet Hospital Equipments | 10% | 25,86,537,90 | 10 | | 06.752,86,52 | 2,58,554,00 | 23,27,883.90- |
| Video Camera (Sony) | 10% | 25,566.08 | | | 25,566.08 | 2,557,00 | 23,009.08 |
| Washing Machine | 10% | 53,626,70 | | | 53,626.70 | 5,363.00 | 48,263.70 |
| Water Fitter | 10% | 28,775.23 | | 4 | 28,775,23 | 2,878.00 | 15,897.23 |
| ter Purkter | 10% | 50,654.43 | | - | 50,664.43 | 5,066.00 | 45,596.43 |
| Water Purifier / Hot Hinwer | TON | 7,530,24 | 1.5 | | 7,530.24 | 753.00 | 6,777.24, |
| Water Works | 5% | 160/122/22/12 | | | 21,22,721.09 | 1,06,136.00 | 20,16,585,09 |
| Weighing Scale | 10% | 54,403.85 | | | 54,405.85 | 5,441.00 | 48,964,85 |
| Xerox/Copier Machine | 10% | 2,02,475.18 | | | 2,02,475,18 | 20,248.00 | 1,82,227.18 |
| Sub-Total (A) | | 22,67,89,498,06 | 1,04,25,201.00 | 1,57,24,027.00 | 25,29,39,726.59 | 1,84,57,115.49 | 23,44,82,610.57 |

| E) | | Amount | - | | | | T | | 4 000 00 | Arrow L | | | - | ł | | | | ſ | | T | T | | | 4,000.20 | | | | | | |
|--|-------------------------------------|--------------------------------|---------|--------------|----------------|------------|-----------|-----|------------|------------|-------------|------------|-------------|-------------|-----------|---------|-----------|----------|------------|-------------|-----------------|------------|-------------|--------------|-------|---|-------|-------|---|---|
| A. | CLOSING BALANCE AS ON 31.03.2016 | < | - | | 10 | | | | 1 MOD | | | | + | 1 | | 2 | | | | | | 1 | 5 | 8 | 1 | | 1 | ave. | 4 | S |
| | CLUSING ON 31 | H | - | ţr. | | | - 41 | - 2 | - | | - 11 | - 50 | | | 1 | - 1 | + * | 1 60 | 10 | + | | | 1 | 1,056 | anna. | | PANO. | toop. | | |
| | | nt Chy. | 1 | | - | | 1 | | | | | | - | - | | 1 | | - | | - | - | | _ | 12 | | 0 | 100 | | ý | |
| | TANGE IN THE | rige Amo | - | | - | - | + | | 2 | | | | - | | | 1 | - | | E1 | 1 | - | | - | | | | | | | |
| | DICREASE BY CASLALTY OR SXCHANGE | Gaualty Exchange Amount | - | Ŧ | 1 | Ŧ | ~ | | + | - | - | - | - | | 7 | | | | 14 | 1 | | - | | 23 23 | | | | | | |
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PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING

NOTE - G

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NOTES FORMING INTEGRAL PART OF ACCOUNTS FOR THE YEAR ENDED 31.03.2016

1. Significant Accounting Policies

- The financial statements have been generally prepared on mercantile basis except in case of License Fees and Bonus, which are accounted for on cash basis.
- Grants in Aid from Government or any other sources, Gate collection money and income from any sources are deposited with WBZA. Expenditure are mat from the Fund received from WBZA.
 However, Funds, as transferred, not utilized at the year-end is shown under PNHZP Society Fund – Note B.
- Fixed assets are stated at cost, which is inclusive of all incidental expenses
 incurred at the time of acquisition/installation/commissioning less depreciation
 which is provided for on written down value of the assets at the rates
 considered appropriate by the WBZA Management. Depreciation on additions
 made during the second half of the year is provided for half year and on
 additions before that is for the whole year based on the dates of acquisition/
 installation/commissioning.
- The valuation of animals and birds has been made at the cost of acquisition. The loss of animals/birds due to casualty is charged to revenue. However no value is put against addition by way of gift/ exchange or birth of the animals/birds.
- The stock of consumable stores (Medicine and Stock at Souvenir Shop) is valued at cost while consumable stores (including stationery items and publication on zoo) are directly charged to revenue.
- Gratuity and Leave Encashment payable to the employees is accounted for on cash basis.
- According to the Accounting Policy all liabilities and receivables at the end of the year were considered in the accounts. The policy was, however, not followed in the preceding year and as a result, the current year accounts include the payments / earnings made for the preceding year also



16 -2-The management and the running of the Padmaja Naidu Himalayan Zoological Park 3 has been handed over to the West Bengal Zoo Authority (a society under West Bengal Societies Registration Act XXXVI of 1961) vide Notification No 3841-For/FR/O/11M-27/2002 dated 14* September, 2010 issued by Department of Forests Govt. of West Bengal. PNHZP Development Fund includes the value of land of approximately 27 hector 4 which the society is holding on 31st March, 2016. 5 The forest land as transferred to PNHZP includes some parts in the possession of the fixed demand holders from which the park has not collected any rent nor renewed their licenses since 2000 subsequent to the direction of the Forest Department, West Bengal under Forest Conservation Act, 1980. Consequent upon the Resolution passed at the Annual General Meeting held on 23" 6. August, 1997 no adjustments towards additions in value on account of birth/gift/exchange of animals and birds are being made in the accounts as per continuing practice. The PNHZP management has been given permissive possession of 7 hector land for 7. the purpose of development of Satellite Zoo Park and pheasant breeding centre at Dowhill, Kurseong by the Directorate of Forests, Govt, of West Bengal vide letter Ref. No 4428/CS/2M-379/08 dated 29/09/2008. However the ownership of the aforesaid land and property handed over by the Directorate of Forest will remain with Forest Directorate. 8. The PNHZP management has been given permissive possession of 5 hectare land for the purpose of Off Display Conservation Breeding Centre at Topkeydara Block under Senchal Wild Life Sanctuary, Darjeeling by the Directorate of Forests, Govt. of West Bengal vide letter Ref No 11613/CS/2M-379/08 dated 18.03.2011. However the ownership of the aforesaid land and property handed over by the Directorate of Forest will remain with Forest Directorate. 9 Advance to Staff includes Particulars Opening Advance Advance Closing Balance given refunded/ Balance as As on Adjusted OT 01.04.2015 31.03.2016 n Mr. A. K. Jha, Ex-392272.00 0 392272:00 Director 65531.50 0 Ő 65531 50 Old Unreconciled advances

5 -3-The basis and the rate of depreciation on Assets have been changed during the year 10. to keep the Assets under specified Block of Assets as per guidelines of WBZA. Consequently, depreciation was charged less by an amount of Rs. 5,42,417.40 during the year due to the change, as said, from earlier year. The value of False Ceiling and Library Books was fully depreciated during the year. 11. Fixed Assets purchased during the year were physically verified by the Management. 12. All personal account ledger balances, whether debit or credit are subject to 13. confirmation. Steps are being taken to regularise income tax and secretarial matters. 14 Previous year's figures have been regrouped and re-arranged, wherever necessary. 15. Director Per our report of even date Inda Member Secretary West Bengal Zoo Authority P.DHAR, PARTNER Membership No. 059194 **P.DHAR & ASSOCIATES** Place: Kolkata CHARTERED ACCOUNTANTS Date: 14.02.2017 FRN: 325149E





PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK

GOVERNMENT OF WEST BENGAL DARJEELING (INDIA) Tel : 91-354-2254250 (Ch.) | 2253709 (Off) | 22542522(Fax) E-mail : pnhzp@yahoo.com | Website : www.pnhzp.gov.in