



Photo credit: N. N. Kalita

## INTRODUCTION TO ZOOS

### ASSAM STATE ZOO CUM BOTANICAL GARDEN, GUWAHATI

—Chandan K. Bora

Assam State Zoo cum Botanical Garden (ASZBG), with an area of 175 hectares, is located right in the heart of the fast growing city of Guwahati, which is also considered as the “gateway of North East India”. The zoo area includes the Hengerabari Reserve Forest, with its hillock and lush green forests. The greenery amidst the thickly populated city serves as the “green lung of the city”. The undulating topography with natural forests gives a unique look to this zoo, and people find beauty in seeing the animals in almost natural conditions.

ASZBG had its origins in a humble menagerie, way back in 1957. In that year, the 64th Indian National Congress Session was held at Pandu, which was then a busy rail station and an important port on the south bank

of the river Brahmaputra. The present Saraighat bridge over the mighty Brahmaputra was not in existence. At that Congress session, the Assam Forest Department arranged to display some wild animals of the region for attracting and amusing both delegates and the public. A female Leopard cub named Spotty drew crowds and was the principal attraction. The Congress session, ended but the animals had to be housed somewhere, and thus germinated the idea of a zoo in Assam. Initially the animals were shifted to the Jalukbari Forest School campus and then to the Cutchery Forest Office, Pabazar, Guwahati. But both the areas were found to be unsuitable for displaying these animals permanently. To create facilities to house the animals, a hillock with a forested area, with an area of 130 hectares in a scenic landscape far from the busy township, was selected. It was located near a remote village called Japori Gog.

Thus, Spotty and her animal friends formed the seed collection when Assam State Zoo was established here in 1957. The zoo was opened to the public a year later. The total numbers of animals and birds at the time of the zoo’s inception were 42 individuals (22 species) and 236 individuals (31 species), respectively.

Over the years, what started off as a mere exhibition of animals grew and expanded to accommodate new species and ideas. In course of time, a museum and a botanical garden were added to the original layout. Due to public demand, the focus was on having greater numbers of species and those the more spectacular and eye-catching exotic ones. Thus, the zoo, during various periods of time, had Chimpanzees, White and Black Rhinos, Zebras, Ostriches and Giraffes from Africa; Pumas, Jaguars and Llamas from South America;

and Kangaroos from Australia. With time, the importance has shifted to indigenous species. The role played by zoos as ex-situ conservation centres has also started gaining prominence. Wild animals that stray into Guwahati or are stranded in its vicinity or marooned elsewhere in the state are rescued and sent to Assam State Zoo. As a matter of fact, before the establishment of the Centre for Wildlife Rehabilitation and Conservation (CWRC) at Panbari, near Kaziranga, in 2002, Assam State Zoo was the only rescue centre for the entire state and was successful in rearing innumerable wild species. The rescued animals in Assam State Zoo make it a sort of source book of the animals found in suburban Guwahati and reflect the diversity of the wildlife of the state.

In 1982, a botanical garden (area 80 hectares) was established at Assam State Zoo. At that time the zoo campus had an area of 130 hectares. The botanical garden is located in the hilly landscape that lies to the east of the exhibit-area. In 2002 another 45 hectares of the Hengrabari Reserved Forest was added to the zoo. Today the total area of the zoo is 175 hectares. The zoo area was entirely hilly, with a patch of flat land lying to its west, that is, near its entrance gate on R.G. Baruah Road. The zoo authorities procured a small strip of plain land to the southwest of the zoo area from a private owner. This is the area

that lies between the present Pelican and aquatic bird enclosures in the southwestern part of the zoo. During the period 1999–2000, almost 175 hectares of zoo area was demarcated by erecting a boundary wall. Of the total zoo area, about 50 hectares is occupied by animal enclosures and buildings. The botanical garden comprises 30 hectares of land. The rest of the area is occupied by natural forest. Roughly 95 hectares of forest is almost virgin and forms part of the Hengerabari Reserved Forest. The vegetation type is a mixture of Tropical Moist Deciduous and Semi Evergreen Forests, in different seral stages of secondary succession. Bamboo Forest, which is another subset of this type, is also well represented. There is a teak plantation on the eastern boundary, with a patch of tall grass and scrub growing along the exposed slopes. A small Sal patch was planted in 1963.

Over a period of time, many housing facilities were created and several magnificent animals were housed in the zoo; however, many of these activities were undertaken in an ad hoc manner.

When Assam State Zoo was established, an officer of the rank of Assistant Conservator of Forests was in charge of the zoo. In 1959 a forest division, namely Assam State Zoo Division, was created and the zoo was

put under this division. In the initial years a large number of animals were collected from the wild and procured from animal dealers and animal traders. The intention was to collect diverse species of animals, both indigenous and exotic, which had display value to the visitor. The general public wished to view exotic animals as at that time the animal habitats of Assam were intact and the local people were used to seeing indigenous animals in the forests in the proximity of their villages. Assam State Zoo used to send indigenous animals such as the Indian One-Horned Rhinoceros to many other countries and in return receive exotic animals such as the Chimpanzee, Giraffe, Zebra, Kangaroo and Tapir.

**Uniqueness of the Assam State Zoo cum Botanical Garden:**

1. ASZBG is one of the CZA's recognized large zoos.
2. It has a collection of about 895 animals, birds and reptiles belonging to 119 species, both indigenous and exotic.
3. Apart from a built-up area of about 50 hectares, the sprawling campus also contains the botanical garden and a part of the Hengerabari Reserve Forest, which remains wild and wooded, harbouring a large number of free-ranging wild species. A total of 15 species of



Sloth Bear enclosure at Assam State Zoo, Guwahati

Photo credit: Himanshu Mahotra



Mission:- To sensitize people, in consistence with interest in the upkeep of the species, through adequate visitation, recreation facilities and education in order to elicit support for conserving the wild fauna and flora of the Northeast Biogeographic Zone and to elevate ASZBG into an ideal institution for conservation breeding of the rare, endangered and endemic species of fauna of the region.



Vision:- This zoo envisions creating a mechanism for enhancing expertise on excellence in the upkeep and ex-situ conservation of the rare and endangered fauna and flora of the region. Consistent with the above mission of the zoo, ASZBG displays some rare and endangered species such as the Great Indian One-Horned Rhinoceros, Golden Langur, Hoolock Gibbon, Golden Cat, Brow-Antlered Deer, Binturong, Serow and Slow Loris (all found only in Northeast India) and others such as the Asian Elephant, Tiger, Black Panther, Leopard Cat, Jungle Cat and most of the primate species of the region.

Photo credit: Dr. Brij Kishor Gupta

Serow with calf at Assam State Zoo, Guwahati





Photo credit: N.N.Kailla

Golden Langur at Assam State Zoo, Guwahati

Hog Breeding Centre, at Basistha, near Guwahati, came into being. As a part of the captive breeding exercise, four Pygmy Hogs were brought from Barnadi Reserved Forest in 1974 and kept in specially designed enclosures, away from visitors. The efforts were rewarded as four piglets were born in 1976.

Another endemic species, namely the White-Winged Wood Duck, was also bred in captivity. In 1970 White-Winged Wood Ducks were regularly brought in, and they bred well in the zoo till they succumbed to disease.

Another species of importance, the Great Indian Rhino, has been bred in captivity since 1963 at ASZBG. The following table shows the history of Rhino births in this zoo. However, as no data on the individual species were maintained and lineages were not recorded, there were possibilities of inbreeding among the animals. Systematic records, including a studbook are maintained as part of the present ex-situ conservation breeding programme of the zoo. DNA analysis is also carried out. The programme achieved success when the first calf was born on 1 September 2014 in the

mammal are to be found here, including thriving populations of Sambar, Barking Deer and Serow, apart from a host of lesser fauna such as reptiles, amphibians and butterflies. The campus is also a birdwatcher's paradise, 152 species of birds have been recorded.

**Breeding History**

Assam Zoo began to focus on a captive breeding programme and was successful in breeding several endangered species such as the Rhino, Gibbon and Pygmy Hog apart from host of other species. Perhaps this zoo is the first to breed the Pygmy Hog, a species endemic to Assam, in captivity long before the present Pygmy

4. Assam State Zoo achieved success in ex-situ conservation breeding of the Great One-Horned Rhinoceros when the first male rhino calf was born on 1 September 2013 in the off-display breeding centre.
5. A museum with a vast collection of priceless trophies, unique specimens, mounted skins and minor forest produce gathered from all over the region gives visitors opportunities to get an idea of the biological richness of Northeast India, a globally acclaimed biodiversity hotspot.
6. The botanical garden, which was established in 1982 adjacent to a virgin forest tract, is considered to be a veritable botanical treasure trove and is recognised as being one of the finest botanical gardens in the region.



Photo credit: Himanshu Malhotra

Pitcher Plant at Assam State Zoo



Photo credit: Chandan K. Bora

One horned rhinoceros at Assam State Zoo, Guwahati

newly constructed ex-situ conservation breeding enclosures. Efforts to breed the remaining animals are also in progress. Accordingly, this zoo had donated several Rhinos to different zoos of the country and abroad.

The Golden Langur was bred in this zoo way back in 1970. The table below shows the breeding records.

### Present Activities

The present activities of ASZBG include renovation and construction of the animal enclosures and improvement of the infrastructure of the zoos. The Government of Assam has taken keen interest in the zoo and sanctioned six crore rupees for execution of the following work:

- Construction of connecting roads
- Improvement of footpath
- Purchase of five battery-operated cars
- Construction of a new reptile house
- Construction of a walk-through aviary
- Renovation of the children's park
- Creating a new Hippopotamus enclosure
- Building a cafeteria
- Strengthening the boundary fence in vulnerable areas
- Landscaping and beautification

### BIRTH RECORDS OF ONE - HORNED RHINOCEROS AT ASSAM STATE ZOO

S.No	House name	Date of Birth	Sex	Sire	Dam
1.	Depali (Jr.)	10/04/1963	F	Wild	Deepali (Sr.)
2.	Japori	10/07/1963	F	Shivaji	Padmini
3.	Krishna	12/09/1971	M	Shivaji	Padmini
4.	Lachit	23/05/1974	M	Shivaji	Padmini (Jr.)
5.	Lakhimini	09/01/1978	F	Shivaji	Padmini
6.	Shyam (Jr.)	09/06/1982	M	Shivaji	Padmini (Jr.)
7.	Bishnu	11/05/1987	M	Laxman	Lakhimi
8.	Mohesh	30/03/1989	M	Laxman	Lakhimi
9.	Rita	22/02/1994	F	Laxman	Lakhimi
10.	Nil (Still Birth)	25/11/1994	F	John	Jini
11.	Nil (Still Birth)	15/06/1999	F	John	Jini
12.	Pori	04/06/2002	F	Bishnu	Baghekhaiti
13.	Nil	01/09/2013	M	Bishnu	Baghekhaiti

### BIRTH RECORDS OF GOLDEN LANGUR AT ASSAM STATE ZOO

S.No	House name	Date of Birth	Sex	Sire	Dam
1.	-----	07/04/1970	F	Wild	Wild
2.	-----	25/09/1976	M	Unknown	Unknown
3.	-----	27/12/1977	M	Unknown	Unknown
4.	Miranda	02/11/1977	F	Chamunda	Unknown
5.	Joon	03/12/2006	M	Ramunda	Chameli
6.	Moon	04/04/2008	M	Ramunda	Chameli
7.	-----	30/06/2010	F	Ramunda	Chameli



## Development Work

In addition, a nocturnal house and new enclosures for the Royal Bengal Tiger, White Tiger, Pygmy Hog and Stump-tailed Macaque with funds granted by the CZA are under construction.

The construction of a new amphibian house has been started in the old museum building.

Rhino and Golden Langur ex-situ conservation breeding is going on.

A new revised layout plan with an emphasis on showcasing the rich biodiversity of the Northeastern region has been approved, and new enclosures have been constructed as per the new plan.

The state government has granted permission to the Director, Assam State Zoo to become a member of the World Association of Zoos and Aquariums (WAZA).



*The author is Director of Assam State Zoo cum Botanical Garden, Guwhati, Assam*



Rescue operation of Leopard

## ZOO NEWS

### LEOPARD RESCUED BY JAIPUR ZOO

A unique and first-of-its-kind rescue operation involving a female leopard was carried out successfully in October 2013. A female Leopard strayed out from the forest area and entered an inhabited area of Jaipur and injured four people. The Leopard was surrounded and attacked with stones, which caused it grievous injury. The Jaipur Zoo authorities stepped in to save the Leopard. After considerable effort, the animal was captured and taken to the zoo. The Leopard was operated on, and with the help of fluid therapy and life-saving drugs, she was saved. After a 51-day stay in the zoo the leopard, was finally released in Sariska Tiger Reserve on 17 December 2013.

### CZA SPONSORED OFFICERS FOR THE DURRELL WILDLIFE CONSERVATION TRUST JERSEY

The Central Zoo Authority deputed Shri B.P.S. Parihar, Director, Van Vihar National Park and Zoo, Bhopal and Dr Arvind Mathur, Veterinary Officer, Jaipur Zoo, Jaipur to attend a two-week training programme on endangered species recovery for 2013 summer school course at Durrell Wildlife Conservation Trust, Jersey, British Channel Islands.

### WILDLIFE WEEK CELEBERATION IN RAJASTHAN

Dr. Arvind Mathur, Veterinary Officer, Jaipur Zoo, received an award 'For Outstanding Contribution in wild animal exchange for Jaipur Zoo' from the Principal Chief Conservator of Forests Shri Rahul Kumar and Shri A.S. Brar, Additional Principal Chief Conservator of Forests & Chief Wildlife Warden, Rajasthan Forest Department at the 59th Wildlife Week function at Jaipur Zoo, Jaipur (Rajasthan).

