

  
**ex-situ**  
UPDATES



Central Zoo Authority  
केन्द्रीय चिड़ियाघर प्राधिकरण



Ministry of Environment, Forest  
and Climate Change

**INTERNATIONAL  
ZOOKEEPERS DAY  
2020**

**Talking Heads  
Dr Liz Romer**

**Species in Focus  
Gharial**







## EDITORIAL TEAM

### CHIEF ADVISOR

Dr S P Yadav, IFS

### EDITOR

Dr Sonali Ghosh, IFS

### EDITORIAL TEAM

- Sruthy Boopathy
- Dr Gowri Mallapur
- Lakshminarasimha R
- Dr Devender Kumar



#### On the Cover:

Animal Keeper with the Greater One-horned Rhino  
Assam State Zoo cum Botanical Gardens, Guwahati  
(Photo: Rupankar Bhattacharjee)

## Wildlife Week 2020



Ex-situ Updates - Vol. 1 | Issue 1



Ex-situ Updates - Vol. 1 | Issue 2

# CONTENTS

From the desk of Member Secretary	ii
Tribute: <b>DR LALJI SINGH</b>	01
<b>MOST VISITED ZOOS IN INDIA</b> Map	02
CZA News	03
Zoo news	04
CZA Awards - <b>PRANI MITRA</b>	05
<b>EX-SITU CONSERVATION BREEDING PROGRAMS- AN OVERVIEW</b>	09
Talking Heads <b>DR LIZ ROMER</b> - President International Zoo Keepers Association	13
Species in Focus <b>THE GHARIAL STORY – MCBT</b>	15
Zoo in Focus - International <b>WILDLIFE RESERVE SINGAPORE</b>	19
Zoo in Focus - India <b>ASSAM STATE ZOO CUM BOTANICAL GARDENS</b>	21
From the pages of History <b>VEERMATA JIJABAI BHOSALE UDYAN &amp; ZOO, MUMBAI</b>	25



© Rupankar Bhattacharjee

A majestic Greater One - horned Rhino in the naturalistic enclosure at the Assam State Zoo cum Botanical Garden, Guwahati.

## ZOO *in focus*

# Assam State Zoo cum Botanical Garden, Guwahati

*Text: Mr Tejas Mariswamy, IFS - Director    Photos: Rupankar Bhattacharjee*

Established in 1957 and spread across an area of 175 ha, in the picturesque landscape of the Hengrabari Reserve Forest lies the Assam State Zoo cum Botanical Garden popularly known as the Assam Zoo, a large category zoo. Being the largest zoo in the northeast India, it has around 55 enclosures housing over 41 species of mammals, 51 species of birds & 32 species of reptiles totalling over 1000 individuals. Among them are some iconic species; Western Hoolock Gibbon, Golden langur, Oriental Pied-hornbill, Leopard (melanistic), Greater One-horned Rhino, Pygmy Hog, Himalayan Serow and Greater Adjutant Stork of which, most of the species have been bred successfully by the zoo.

Under the ten-year Vision Plan, the zoo is on the brink of a major makeover to be completed by 2022 with new and futuristic enclosures which are based on animals' wild habitat as the theme. The Assam State Zoo firmly believes that the enclosures are animal-centric and provide for their physical and psychological needs; making people be a part of this immersive experience. A few ambitious plans are already under implementation -

African Savannah Habitat and Indigenous Walk-in Aviary. The African Savannah Habitat, the first of its kind, aims to visually transport the zoo visitor to the African Savannah with Giraffe, Zebra and Ostrich together. The Aquascape, Amazonian habitat, and futuristic Vulture and Leopard enclosures are also on the anvil.

The Assam State Zoo is the coordinating zoo for the conservation breeding program of five conservation dependent species namely- Greater One-horned Rhino, Golden Langur, Golden cat, Himalayan Serow and Grey Peacock-pheasant. Recently the zoo has proposed to include two more endangered species in the list- Black Soft-shell Turtle and the White-winged Wood Duck.

In September 2019, the zoo and its associates, have supplemented in-situ populations of the endangered Black Softshell Turtle artificially incubating the eggs collected from temple ponds. The hatchlings have been reared to the appropriate size and in accordance to the IUCN protocols released in the vicinity of Pobitora Wildlife Sanctuary.



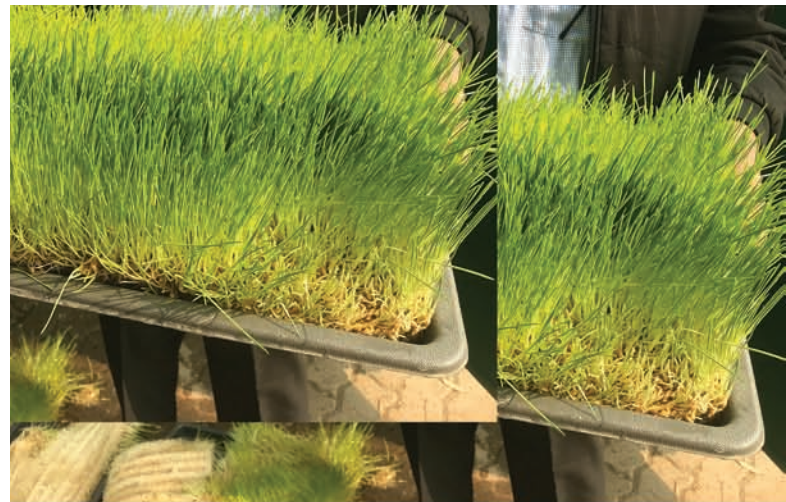
As part of the conservation breeding plan, a joint initiative by Nagaland Zoological Garden, Dimapur and Assam State Zoo the lone individuals of Himalayan serow at both the zoos were paired by means of a breeding loan which led to successful breeding. The Assam State Zoo is also actively engaged in rescue of wildlife straying into human habitat, and their rehabilitation or life-time care of those that cannot be rehabilitated in the wild. The Guwahati city is surrounded by Amchang Wildlife Sanctuary on one side and Meghalaya forests on the other. As such, the role played by the Assam State Zoo in mitigating man - animal conflict in the city is unparalleled, especially with regard to wild elephants. Twice in the last 20 months, the Assam State Zoo has successfully restrained wild elephants that had strayed into the city thereby preventing any major casualties or damage to property. This apart, mitigation of conflict concerned with leopards and reptiles is a regular activity for the zoo personnel.

***The Assam State Zoo is also the first zoo in the country to introduce the concept of Hydroponics - a system which can produce up to 1200 kg green fodder per day in a space of 1000 sq. feet.***

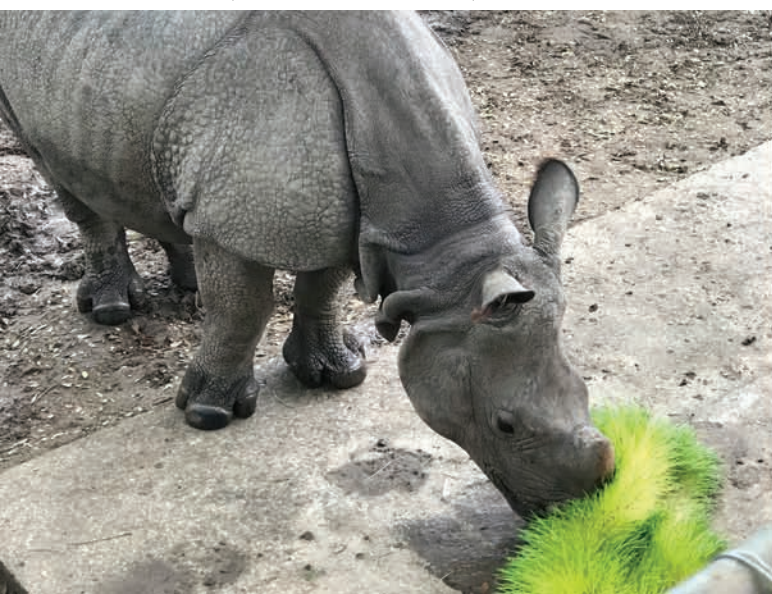
The Guwahati Refineries under their CSR initiative have funded the project. This is a step towards self-reliance, which the zoo is striving for. Another important development for the Assam State Zoo is the creation of a society to retain the revenue generated and later strive for financial self-sufficiency. Such a system is already in place in many zoos in the country.



Fodder grown using the concept of Hydroponics.



The fodder to be fed to the animals from the freshly in-housegrown batch.



The Greater One-horned Rhinos being fed with the fodder grown using Hydroponics.





Green Cat Snake



A mother and young one of Western Hoolock Gibbon

## Diversification of Zoo Activities

As indicated earlier, the Assam State Zoo can be divided into two sections - zoo area with animal enclosures of 30 ha. and the pristine forest area of 145 ha. The forest patch of the Zoo is very diverse in terms of its biodiversity. Approximately 637 species of flora and over 100 species of fauna are found in the area. The zoo intends to retain this patch and propose forest-based ecotourism activities. The zoo being in the centre of the Guwahati City, the Forest area acts as its Green lung, providing the city inhabitants various ecosystem services. The Assam State Zoo has signed an agreement with the Assam Mountaineering Association and it is proposed to initiate adventure-based tourism.

To summarize, the Assam State Zoo is now successfully implementing its core objective of conserving endangered native species, while also imparting conservation education to the citizens of the country in diverse ways. The Assam State Zoo has their foot on the accelerator on the long journey it has embarked upon.



Brow Antlered Deer in their enclosure

© Rupankar Bhattacharjee



Northern giraffe, necking around

© Rupankar Bhattacharjee





**Jungle Cat kittens**

© Assam State Zoo cum Botanical Gardens, Guwahati, Assam - Rupankar Bhattacharjee



**Egyptian Vulture**

© Rupankar Bhattacharjee



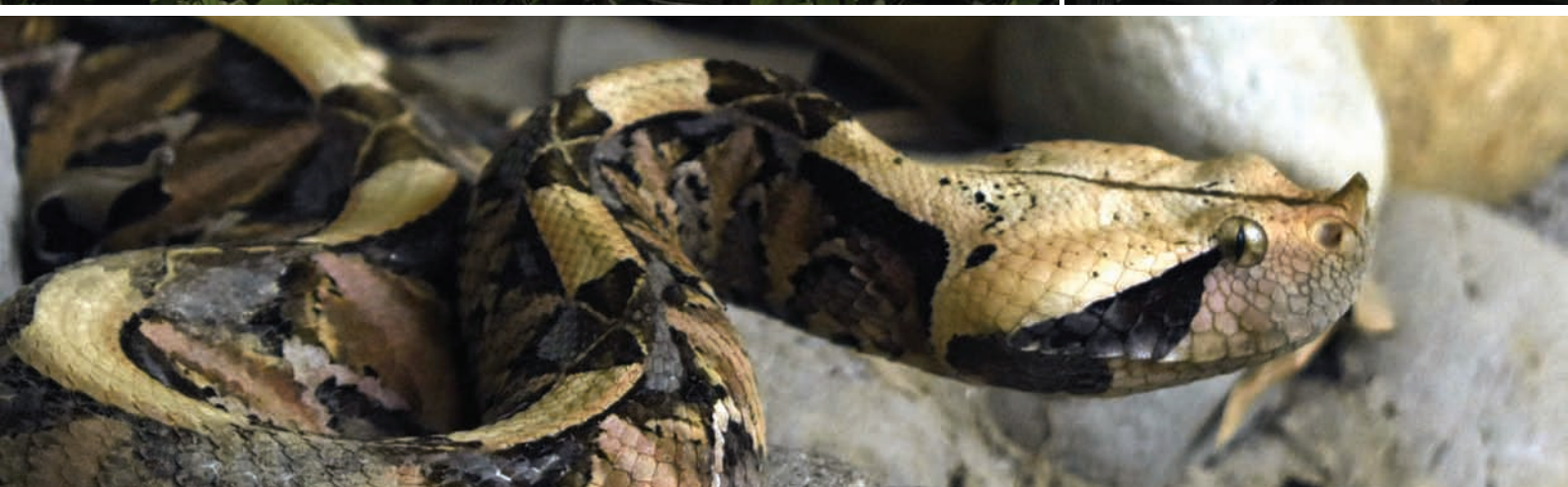
**Binturong**

© Assam State Zoo cum Botanical Gardens, Guwahati, Assam - Rupankar Bhattacharjee



© Rupankar Bhattacharjee

**Himalayan Vulture**



**Gaboon Viper**

© Assam State Zoo cum Botanical Gardens, Guwahati, Assam - Rupankar Bhattacharjee





The 67-foot-high Italianate Sassoon clock tower, stands close to the main road adding charm and character to the neighbourhood.

Exquisite lattice woodwork inspired by Decimus Burton's Palm House at the Royal Botanic Gardens, Kew

The stony grotto, made from basalt stone with high compression and abrasion strength, was once used as the hiding den and feed house for the Asiatic black bear and is symbolic of the olden time concept of animal housing.

# from the pages of **HISTORY** **Veermata Jijabai Bhosale Udyan & Zoo, Mumbai**

Text & Photos: Dr Sanjay Tripathi - Director

## June 1861

Established as Victoria Garden

## November 1862

Formally opened to the public by Lady Frere, wife of the then Governor, Sir Bartle Frere

## 1873

Society handed over management to Municipal Corporation of Greater Mumbai

## 1969

Name changed to Veermata Jijabai Bhosle Udyan

## January 1980

Name was modified to Veermata Jijabai Bhosle Udyan and Zoo

The Victoria Garden has the wildest species of trees and historic monuments like the Triumphal Arch, Kala Ghoda statue, Italianate Clock Tower, the Frere Temple and a Greek style-Rotunda, among many others. V.J.B. Udyan and Zoo, fondly recognised as Ranibag (Queen's Garden) by Mumbaikars, has a 63% garden area and animal enclosures in the remaining 37%. It has over 4,000 trees of more than 250 species belonging to 54 families, and 297 animals of 41 species. It is a "Heritage Grade II (B)" site and is recognised as "Medium Zoo" by Central Zoo Authority, New Delhi. Recently, the zoo has undergone some monumental changes. The zoo bid farewell to the old enclosures and moat systems. New state of the art facilities was developed for the animals, keeping in mind their behavioral requirements. A well-equipped zoo hospital, exhibits mimicking the animal's natural habitats, electrical fencing for animal safety, sound proof glass viewing for non-intrusive immersive visitor experience have been introduced.

Pictures of the newly developed enclosures



Contact us at:

**CENTRAL ZOO AUTHORITY**

B-1 Wing, 6th Floor, Pandit Deen Dayal Antyodaya Bhawan,  
CGO Complex, Lodhi Road,  
New Delhi - 110003

Email: [cza@nic.in](mailto:cza@nic.in)

Tel: +91-011-24367851/52

Follow us on:



@CZA\_Delhi Central Zoo Authority