



75  
आज़ादी का  
अमृत महोत्सव



# AZADI

~Ka Amrit Mahotsav~

Conservation to Co-existence - The People Connect

Volume II

(September 2021 - February 2022)



*My heart leaps up when I behold  
A rainbow in the sky:  
So was it when my life began;  
So is it now I am a man;  
So be it when I shall grow old,  
Or let me die!  
The Child is father of the Man;  
And I could wish my days to be  
Bound each to each by natural piety.*

*-William Wordsworth*













GOVERNMENT OF INDIA  
भारत सरकार

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय

**Central Zoo Authority**

केंद्रीय चिड़ियाघर प्राधिकरण



**Dr. Sanjay Kumar Shukla, IFS**  
Member Secretary

## Preface

The Central Zoo Authority (CZA) to complement the activities of Azadi Ka Amrit Mahotsav has undertaken a nationwide outreach campaign in collaboration with recognized Indian zoos to showcase India's rich biodiversity. This campaign was launched on 12<sup>th</sup> March 2021 in alignment with the Mahotsav flag-off at Sabarmati Ashram (Gujarat) by the Honourable Prime Minister of India.

CZA's outreach and conservation awareness campaign supplement the intensive campaign by the Government of India that focuses on active citizen participation. The theme of this campaign, "Conservation to Co-existence: The people connect" has been selected against the backdrop of rapidly expanding human settlements that alter land use and lead to increased interface between wildlife and humans.

With a footfall of over 80 million, zoos have tremendous potential to target and engage with people in urban and rural environments. Conservation education activities in zoos help to form a rapport between people and wildlife by building positive attitudes and behaviours.

During the campaign, the zoos have organized various activities in collaboration with scientific institutes, NGOs, and civil society organizations to develop an outreach curriculum that would encourage people to make informed choices for sustainable living.

Our second compendium of Azadi ka Amrit Mahotsav condenses the activities hosted from week 26 through week 50 by the 25 zoos representing the biogeographic zones of the Semi-Arid, Islands, Coasts, and Northeast. 25 native, conservation priority species whose distribution lies within these zones were highlighted and celebrated through targeted outreach activities.

I hope this all-encompassing visual tour of the activities compiled by our team is as riveting to you as it has been for us.

(Sanjay Kumar Shukla)



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# AZADI KA AMRIT MAHOTSAV

## #75SPECIES75ZOOS

### VOLUME 2

September 6<sup>th</sup> 2021 to February 27<sup>th</sup> 2022



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| 7  | Lesser Florican - Indroda Nature Park, Gandhinagar                     | 19 | Clouded Leopard - Sepahijala Zoological Park, Bishalgarh                                |
| 8  | Peafowl - Mini Zoo, Pipli  | 20 | Pygmy Hog - Assam State Zoo Cum Botanical Garden, Guwahati                              |
| 9  | House Sparrow - Rohtak Zoo, Rohtak                                     | 21 | Northern Pig-tailed Macaque - Aizawl Zoo, Lungverh                                      |
| 10 | Nilgai - Deer Park, Motibagh   | 22 | Slow Loris - Nehru Park Zoo, Tura   |
| 11 | Barn Owl - M C Zoological Park, Chhatbir                               | 23 | Sangai - Manipur Zoological Garden, Imphal  |
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*“Nature is slow but sure; she works no faster than need be; she is the tortoise that wins the race by her perseverance.”*

*~ Henry David Thoreau*

“ કુદરત ધીમી છે પરંતુ નશ્ચિયતિ છે; તે જરૂર કરતાં વધુ ઝડપે કામ કરતી નથી; તે કાચબો છે જે તેના ખંતથી રેસ જીતે છે. ”

~ હેનરી ડેવિડ થોરો

**Week 26** of the Azadi ka Amrit Mahotsav featured the Indian Star Tortoise (*Geochelone elegans*) recognized by the typical star-shaped pattern on its shell and the Kamla Nehru Zoological Park, Ahmedabad, Gujarat. The Indian Star Tortoise is a well-known species but faces many threats like habitat loss and poaching for the pet trade. The Kamla Nehru Zoological Park highlighted the species in focus in a grand way with information banners placed across the city. Highlights of the week’s activities included expert talks on wildlife conservation for college students, expert talks on species biology and trade in wildlife species, and interactions with students and visitors at information kiosks set up in the zoo.





**WEEK 26**

September 6 to September 12, 2021

## **INDIAN STAR TORTOISE**

*Geochelone elegans*

**Kamla Nehru Zoological Park, Ahmedabad**

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# SPECIES & ZOO IN FOCUS

## INDIAN STAR TORTOISE

*Geochelone elegans*

**Wild Life (Protection) Act, 1972: Schedule IV**

**IUCN Red list status: Vulnerable**



In India, the Indian Star Tortoises are distributed across two broadly disjunct areas of geographic occurrence; Northwestern India (Gujarat, Rajasthan, and Madhya Pradesh) and Southern India (from Tamil Nadu, Andhra Pradesh, and eastern Karnataka to Odisha). They inhabit a variety of dry vegetation types, including scrublands, grasslands, desert edges, and agricultural landscapes of fields, hedgerows, and plantations. It is a highly generalized habitat preference species. They are mainly herbivores (folivores and frugivores) and their diet consist of grasses, herbaceous leaves, flowers, and fruit. Occasionally, they feed on insects, carrion, and dung.

Crepuscular by habit, they are active at dawn and dusk. Usually solitary, they do not hibernate, but in extreme weather conditions, they stay inactive. They are sexually dimorphic; females are larger than their male counterparts. In addition, the plastrons of the females are much flatter than those of the males (concave shape). Females attain sexual maturity at around 6–7 years of age. Their mating system is polygynandry; multiple males and females having mating relationships. Their breeding season varies based on their geographic location and the females lay 1-9 clutches, with 1-10 eggs in each clutch every year. Incubation is for 47 - 180 days. Once the eggs are laid, there is no parental care given to the eggs or hatchlings.

Perception and communication are mostly visual. Tactile and olfactory senses are used during feeding, courtship, male competitive behaviour, and nesting.

The species faces two main threats; loss of habitat to agriculture and illegal harvesting for the international pet trade. The species has been accorded priority nationally (Wildlife (Protection) Act, 1972) and internationally (CITES). There are 1188 individuals housed in 47 zoos across India.

## KAMLA NEHRU ZOOLOGICAL GARDEN

Kamla Nehru Zoological Garden is situated on the outer periphery of Kankaria Lake, Ahmedabad municipal corporation. This Zoo was established under the guidance of the Ahmedabad Municipal Corporation. It houses within its 117 acres a reptile house, butterfly park, and a nocturnal zoo. Presently, the zoo houses 46 species of birds, 21 species of mammals, and 16 species of reptiles.





# Azadi Ka Amrit Mahotsav

Week 26<sup>th</sup> Species in Focus



**Indian Star Tortoise**  
(*Geochelone elegance*)

**75** CONSERVATION TO CO-EXISTENCE:  
THE PEOPLE CONNECT  
India # 75 Weeks 75 Species 75 Zoos

**CONSERVATION TO CO-EXISTENCE: THE PEOPLE CONNECT**

6<sup>th</sup> Sep to 12<sup>th</sup> Sep 2021



*“The lion is an emblem of the dream of absolute power -- and, as a wild rather than a domestic animal, he belongs to a world outside the realm of society and culture.*

*- Charles H. Hinnat*

“ સિંહ એ સંપૂર્ણ શક્તિના સ્વપ્નનું પ્રતીક છે -- અને, ઘરેલું નહી પણ જંગલી પ્રાણીની જેમ સમાજ અને સંસ્કૃતિના ક્ષેત્રની બહારની દુનિયાનો છે. ”

~ ચાર્લ્સ એચ. હિન્નત

**Week 27** highlighted the Asiatic Lion (*Panthera leo leo*), a species admired throughout history as a symbol of courage and strength, and the Sakkarbaug Zoological Park, Junagadh, Gujarat. The Asiatic Lion is a large wildcat species easily identified by its characteristic mane and the belly skin fold. They live in family groups called “pride”. They are flagship species in the ecosystem and are widely represented in culture through depictions in sculptures, paintings, films, and literature. Sakkarbaug Zoological Park is among the large zoos in India and was established by Mohabat Khanji Babi-II of Junagadh. The zoo houses pure-bred Asiatic lions and is the co-ordinating zoo for the ex-situ conservation breeding of the species to safeguard the population. Various competitions such as drawing, poetry, quizzes, and guided zoo tours were organized for school and college students.





**WEEK 27**

September 13 to September 19, 2021

**ASIATIC LION**

*Panthera leo leo*

**Sakkarbaug Zoological Park, Gujarat**

© Mohan Ram Langa

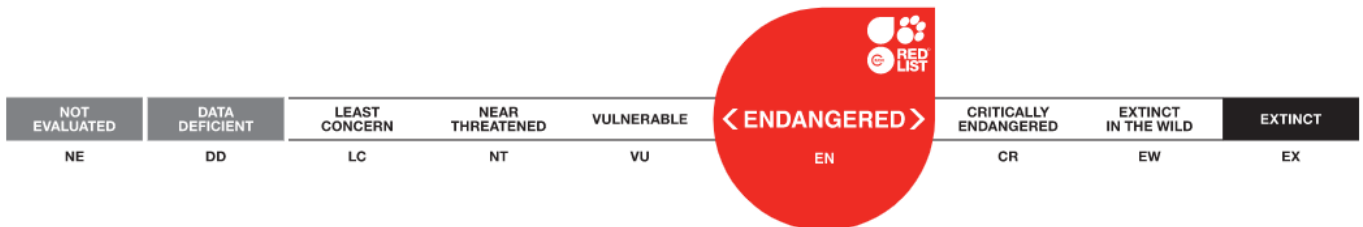
# SPECIES & ZOO IN FOCUS

## ASIATIC LION

*Panthera leo leo*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Endangered**



The Asiatic Lion is a subspecies of lions that historically extended from Iraq to Central India but is presently restricted to a single area in the state of Gujarat. Its distribution spans the 30,000 km<sup>2</sup> of Saurashtra Landscape spreading over Junagadh, Amreli, Bhavnagar, Gir, and Somnath districts of Gujarat. They inhabit landscapes dominated by dry deciduous, scrub, and dry savannah forests.

They are characterized by their beige/tawny coat and long tail with a tuft of hair at the end. Additionally, the males can be distinguished from the females due to the presence of a mane around their head and neck. Asiatic Lions are smaller in size than their African counterparts. They also have the presence of a distinct skin fold along their belly which is absent in the African Lion. Lions live in groups called Pride. The usual composition of the Pride consists of related females and their cubs.

Lions breed throughout the year with a gestation period of 100-114 days. They are largely nocturnal or crepuscular with a preference for medium-sized prey.

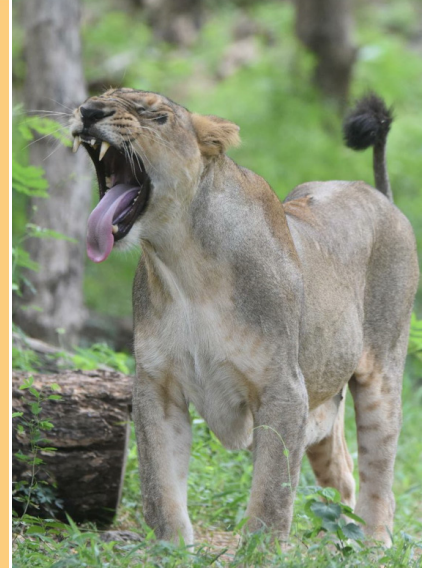
The Asiatic Lion currently only exists in the Gir landscape of Gujarat and is hence vulnerable to extinction from epidemics or a natural calamity. Project Lion, a flagship project to reintroduce free-ranging lions in other parts of Gujarat and other states of India has now been launched by the Honorable Prime Minister of India on 15<sup>th</sup> August 2020. There are 218 individuals housed in 36 zoos across India.

## SAKKARBAUG ZOOLOGICAL PARK

Sakkarbaug Zoological Park also known as Sakkarbaug Zoo or Junagadh Zoo is an 84 ha zoo that opened in 1863 at Junagadh, Gujarat, India. One of the oldest zoos in Western India, it was established by the Nawab of Junagadh and gets its name (Sakkarbaug) from its creation as a private garden having a step well and sweet potable water. Lying at the foothills of Girnar Hills, it also holds the distinction of providing purebred Asiatic Lions to all the zoos around the world. It is categorized as a large zoo under the foothills of Mount Girnar in Junagadh city. Presently the zoo houses 52 species of birds, 39 species of mammals, and 15 species of reptiles that complement and strengthen the conservation efforts of wild fauna in Gujarat and reinforce National efforts for the preservation of the country's biodiversity.



Vernacular Names: Sawach/Sawaj (Kathiawari), Sher/Babbarsher/Singh (Hindi), Sinh (male); Sinhan (female) (Gujarati)




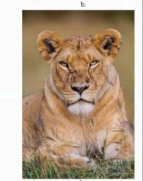


Presented by  
Kavish Bhatnagar

Hosted by  
Anurag Mohanty

Co-Hosted by  
Dr. Ashish Kumar

### Asiatic vs African

♂			♀
Sparsely having a typical "mohawk"			Typical belly fold
Prominent belly fold			More elongated and sleeker facial features compared to the more rounded facial features with 'bluntish' muzzles in African lionesses



*“Nature does not compromise; a pelican is not a compromise between a crow and otter, it is just a pelican. Nature makes no compromises; any inefficient products are recalled to the manufacturer!”*

*~ Amory Lovins*

“કુદરત સમાધાન કરતી નથી; પેલિકન એ કાગડો અને જળબિલાડી વચ્ચેનું સમાધાન નથી, તે માત્ર એક પેલિકન છે. કુદરત કોઈ સમાધાન કરતી નથી; કોઈપણ બિનકાર્યક્ષમ ઉત્પાદનો ઉત્પાદકને પાછા બોલાવવામાં આવે છે!”

~ એમોરી લોવિન્સ

**Week 28** showcased the Smooth-coated Otter (*Lutrogale perspicillata*), the largest otter found in Asia, and the Dr. Shyamaprasad Mukherjee Zoological Park, Surat, Gujarat. Smooth-coated Otters have a smooth, sleek pelage (coat) and velvety fur which is thick and in two layers. Their guard fur keeps their underfur dry when in water, and helps retain body heat. Their front legs are shorter than their hind legs, and their thick, conical tail is more flattened at the end compared to other otter species. All these adaptations help with swimming and an aquatic lifestyle. The Dr. Shyamaprasad Mukherjee Zoological Park is one of the oldest zoos in Gujarat. The zoo organized a series of webinars on the conservation status and ecology of the species and human-otter interactions in Surat District for the campaign. Additionally, a talk on the lessons a person can learn from wild animals was conducted for children, which was well received.



# WEEK 28

September 20 to September 26, 2021

## SMOOTH-COATED OTTER

*Lutrogale perspicillata*



Dr Shyamaprasad Mukherjee Zoological Park, Surat

© Prasanna Kumar Mamidala, CC BY-SA 3.0

# SPECIES & ZOO IN FOCUS

## SMOOTH–COATED OTTER

*Lutrogale perspicillata*

**Wild Life (Protection) Act,1972: Schedule II**

**IUCN Red list status: Vulnerable**



The Smooth-coated Otter is the largest otter distributed in South and Southeast Asia. Its distribution range is from Indonesia through Southeast Asia and westward from South China to India and Pakistan. A small, isolated population also occurs in Iraq. In India, except the high Himalayas and arid areas, it is distributed in most river systems.

Smooth-coated Otters inhabit and use large rivers, lakes, streams, swamp forests, mangroves, and estuaries for foraging; rocky stretches for denning and resting, sandy banks for grooming and swamps as natal den sites and nurseries. Predominantly piscivorous, they often supplement their diet with shrimp, crayfish, crab, insects, and vertebrates such as frogs, mudskippers, birds, rats, and occasionally snakes.

Smooth-coated Otters are gregarious by nature, living in groups called pods. A pod usually consists of 5-11 individuals; generally with an adult female and her offspring. The group size varies considerably between seasons and individuals of different ages and sex make up the family group. Their breeding season is from August to December with a gestation period of 61 to 65 days; litter size is 2 to 5 pups. They communicate through a variety of calls and tactile communication and scents left at their spraint sites.

Major threats to the Smooth-coated Otter populations are loss of wetland habitats, reduction in prey biomass, poaching, and contamination/pollution of waterways. The species has been accorded protection at a National (Wildlife (Protection) Act,1972) and International scale (CITES Appendix I). There are 24 individuals housed in six zoos across India.

## DR. SHYAMAPRASAD MUKHERJEE ZOOLOGICAL PARK

Dr Shyamaprasad Mukherjee Zoological Garden is a medium-category zoo situated upstream of the Tapi river bank at Sarthana. It was established on 26<sup>th</sup> March 2003 as the first zoological park in the Southern region of the Gujarat State, It is spread over an area of 81 acres with natural vegetation and water bodies providing naturalistic spaces for the animals. Presently, the zoo houses 21 species of birds, 18 species of mammals, and 6 species of reptiles.



**SURAT MUNICIPAL CORPORATION**

**75 Azadi Ka Amrit Mahotsav**

**CONSERVATION TO CO-EXISTENCE: THE PEOPLE CONNECT SMOOTH COATED OTTER (*Lutrogale perspicillata*)**

**EXPERT TALK**

 <b>N. V. Upadhyay</b> By, Commissioner (D)	 <b>Dr. Rajesh Patel</b> I/C Zoo Superintendent	 <b>Kunal Trivedi</b> Nature Club, Surat	 <b>Dr. S. A. Hussain</b> WII
20/09/2021, Monday 09:00-10:00 AM	20/09/2021, Monday 09:00-10:00 AM	21/09/2021, Tuesday 10:00-11:00 AM	22/09/2021, Wednesday 04:00-05:00 PM

 <b>Online Drawing Competition</b> 22/09/2021, Wednesday	 <b>Photography Competition</b> 23/09/2021, Thursday	 <b>Dr. Nehal D. Shah</b> Founder Trustee, Aarogya	 <b>Dr. Katrina Fernandez</b> Ecologist & Biorecorder Wild Otters Research Pvt. Ltd.
22/09/2021, Wednesday	23/09/2021, Thursday	24/09/2021, Friday 04:00-05:00 PM	25/09/2021, Saturday 10:00-11:00 AM

**At Dr. Shayama Prasad Mukherjee Zoological Garden, Surat Municipal Corporation**



### Team Otter Watch

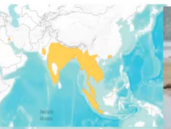









“Team Otter Watch” is a new initiative started by Wildlife Trust of India and Nature Club Surat. It is a team of dedicated volunteers working for Otter research & conservation. The team will mainly focus on otter documentation and conflict mitigation in Surat district.

OTTER CONSERVATION PROJECT NATURE CLUB SURAT & WILDLIFE TRUST OF INDIA

**CiscoWebex**

**Distribution of Indian otter species**

Smooth-coated  
Eurasian  
Small-clawed



*“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”*

*~John Muir*

“ જ્યારે આપણે કોઈ પણ વસ્તુને જાતે જ પસંદ કરવાનો પ્રયાસ કરીએ છીએ, ત્યારે આપણને તે બ્રહ્માંડની દરેક વસ્તુ સાથે જોડાયેલું લાગે છે. ”

~જહોન મુઈર

**Week 29** highlighted the Indian Wild Ass (*Equus hemionus khur*) also called the Ghudkhur, Khur, or Indian Onager, a sub-species of the Asiatic Wild Ass and the Sardar Patel Zoological Park, Kevadiya, Gujarat. The Indian Wild Ass has an estimated population of about 4,038 individuals and is restricted to the semi-arid region of India. The species was showcased by Sardar Patel Zoological Park situated in the Narmada district of Gujarat. The zoo organized multiple competitions, guided zoo tours, and in-person talks for school children to create awareness for this endemic species. Documentaries on wildlife conservation, rescue, and rehabilitation in Gujarati were showcased at the zoo for visitors and also broadcast in nearby schools.



# WEEK 29

September 27 to October 3, 2021

## INDIAN WILD ASS

*Equus hemionus khur*



**Sardar Patel Zoological Park, Kevadia**

© Sumeet Moghe, CC BY-SA 3.0

# SPECIES & ZOO IN FOCUS

## INDIAN WILD ASS

*Equus hemionus khur*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Near Threatened**



The Indian Wild Ass is an odd-toed ungulate with a pale chestnut to a reddish grey, fawn coat colour. It has a short erect mane that continues as a dark brown stripe along its back to the root of the tail. The lower parts are white. It is endemic in its distribution which is limited to the state of Gujarat, largely in the Little Rann of Kutch area. The Wild Ass Sanctuary created to conserve the species encompasses an area of 4953.70 sq. km. in the Little Rann of Kachchh and the districts of Surendranagar, Rajkot, Patan, Banaskantha and Kachchh. The Indian wild ass population harboured here is the only gene pool of the sub-species 'khur' in the entire world. They are herbivorous and feed on grass, sedges, leaves and fruits of plants growing in the extreme environment of Kachchh.

Group sizes in the Indian wild ass vary throughout the year. The group typically consists of two primary social units, the family/breeding unit consists of multiple age classes of females, foal, yearlings and few sub-adult males and a dominant stallion. Stallions are solitary or live in groups of 2-3 individuals. Family groups are large when food is abundant. Individual territories are defended aggressively by the dominant males. Males are polygynous and females can be polyestrous i.e. their oestrus cycle reoccurs until conception or till the end of breeding season which is monsoon. The gestation period is usually 11 months with the birth of a single foal.

The species is threatened by habitat degradation owing to anthropogenic activities and disease outbreaks. It has been accorded the highest protection under the Wildlife (Protection) Act, 1972. There are 17 individuals housed in 3 zoos across India.

## SARDAR PATEL ZOOLOGICAL PARK

The Sardar Patel Zoological Park (popularly known as Jungle Safari) is a state-of-art zoo with a unique collection of animals and birds from various biogeographic regions of the world. It is spread over an area of 375 acres. It is located on the right bank of the Narmada River, near the Statue of Unity; the tallest statue in the world, and the Sardar Sarovar Dam. The zoo was inaugurated by Shri Narendra Modi, Hon'ble Prime Minister of India on 30<sup>th</sup> October 2020; the day coinciding with Sardar Patel's 145th birth anniversary. The zoo's main attraction is one of the largest geodesic aviaries built in record time. The park is home to more than 71 species of fauna, covering various biomes of Africa, Australia, Asia and America.



## Species in Focus- Asiatic Wild Ass ( *Equus hemionus khur* )

Sr.No	Date	Event
1	27/9/2021 Monday	Drawing Competition
2	28/9/2021 Tuesday	Essay and Quiz Competition
3	29/9/2021 Wednesday / Time: 4 PM to 5 PM	Expert Talk by Dr.Nita Shah, Scientist BNHS on know your Species i.e Asiatic Wild Ass and Know your Zoo talk by Dr.R.R.Nala, Director, Saradr Patel Zoological Park.
4	30/9/2021 Thursday	Guided tour of Zoological Park for students of nearby Schools.
5	1/10/2021 Friday	Biodiversity Talk in schools of adjoining area of Zoological Park and Plastic collection drive.
6	2/10/2021 Saturday	Wildlife documentary show at Zoological Park and schools of nearby area
7	3/10/2021 Sunday	Prize Distribution

**Conservation Issues**

- Drought Prone Stochastic System
- Narmada canal impacting landscape by altering local economics, land use pattern, human social dynamics and wild ass movement
- Increase in *Prosopis spp* altering habitat condition
- Increase in salt mining and associated activities
- Crop depredation and conflict with agriculturists
- Livestock grazing and conflict with wild ass
- Development activities




*“We who are gathered here may represent a particular delete, not of money and power, but of concern for the earth for the earth’s sake.”*

*~ Ansel Adams (American photographer)*

“ આપણે જે અહીંયા ભેગા થયા છીએ એ કદાચ ખાસ વર્ગ પ્રતિનીધિત્ કરીએ, પૈસા અને સત્તાનો નહીં પરંતુ પૃથ્વી માટે પૃથ્વીની ચિંતા નો ”

~એન્સેલ એડમ્સ  
(અમેરિકન ફોટોગ્રાફર)

**Week 30** The Indian Fox (*Vulpes bengalensis*) and the Ambardi Safari Park, Dhari, Gujarat were the species in focus and zoo in focus respectively for Week 30. The Indian Fox, also known as the Bengal Fox, is a species of Asian foxes endemic to the Indian subcontinent. It is a medium-sized fox with an elongated muzzle and black hair in small patches on the upper part of the muzzle. It has the characteristic large, bushy, black-tipped tail which is a fox’s most prominent feature. The tail accounts for about 60% of the total length of its body. Ambardi Safari Park conducted guided tours in the zoo, competitions, and conservation-related talks on the Gir landscape in nearby schools. Talks on the biology of the species in focus, current research status, and the way forward to address conservation challenges were discussed.



# WEEK 30

October 4 to October 10, 2021

## INDIAN FOX

*Vulpes bengalensis*



**Ambardi Safari Park, Gujarat**

© By M V Shreeram - Own work, CC BY-SA 4.0

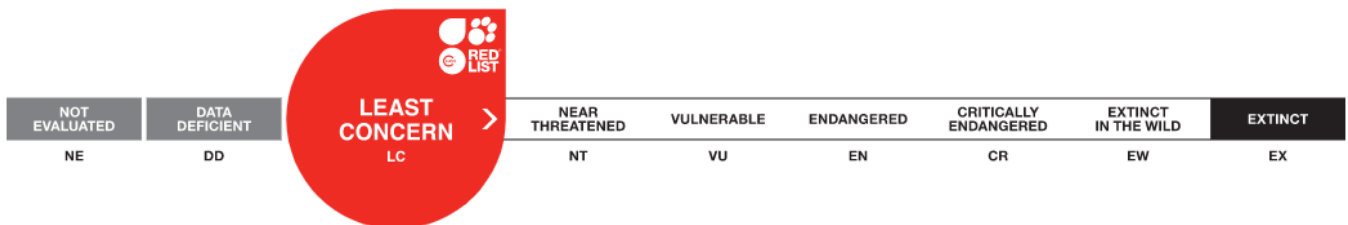
# SPECIES & ZOO IN FOCUS

## INDIAN FOX

*Vulpes bengalensis*

**Wild Life (Protection) Act, 1972: Schedule II**

**IUCN Red list status: Least Concern**



The Indian Fox is a medium-sized fox endemic to the Indian subcontinent. Its distribution ranges from the foothills of the Himalayas in Nepal to the southern tip of the Indian peninsula (excluding the western and eastern ghats). It inhabits plains and open scrub, thorn, or dry deciduous forest areas. It is not abundant in any area within its distribution range.

The Indian Fox is usually crepuscular or nocturnal although they have also been recorded to be active during the day. The basic social unit of the species is the breeding pair. Pair bonds can last several years with both parents sharing the responsibility of bringing food and guarding the den. Their breeding season is in the winter season and the gestation period is 50–53 days, the young are born in the first four months of the year and the average litter size is 2–4 pups.

They are omnivorous and opportunistic feeders and foraging is usually done solitarily. They feed on small invertebrates, mammals, birds, and fruits. The fox's common vocalizations range from a chattering cry which appears to have a major role in maintaining territoriality or as an alarm call. Besides, they also growl, whimper and whine.

The species is threatened by anthropogenic pressures, infectious disease outbreaks and has been accorded protection under the Wildlife (Protection) Act, 1972. There are 94 individuals housed in 18 zoos across India.

## AMBARDI SAFARI PARK

Ambardi Safari Park is a Reserve Forest of the Gir Protected Area landscape and is located near the Khodiyar reservoir on the bank of the Shetrunji river. It is nestled in an undulating terrain dotted with diverse thorny forest. Spread over an area of 386 hectares, it is one of the best places to view the Asiatic Lion in its natural habitat. The safari park also offers visitors an opportunity to view other mammals such as Chital, Nilgai, Chinkara, and free-ranging birds.





# AMBARDI SAFARI PARK, GUJARAT

## Species in focus – Indian Fox (*Vulpes bengalensis*)



Date	Events
4-10-21	Guided tour of Ambardi Safari Park for students of nearby schools.
5-10-21	Drawing and essay events on Indian fox in its habitat for students of nearby schools.
6-10-21	Expert talk by Dr. Sumit Dookia, Asst. professor, GGSIPU on 'know your species' and by Dr. Anshuman Sharma, DCF Gir East on 'know your zoo'.
7-10-21	Guided tour of Ambardi Safari Park for students of nearby schools.
8-10-21	Gir biodiversity talk in schools of adjoining area of Ambardi Safari park.
9-10-21	Guided tour of Ambardi Safari Park for students of nearby schools.
10-10-21	Prize distribution



*Vulpes bengalensis* is a relatively small fox with an elongated muzzle, long, pointed ears, and a long, bushy tail.

The pelage ranges in color from buff to silver-gray with an overall grizzled effect; the dorsal pelage is mostly grayish and paler ventrally. The legs tend to be brownish or rufous, and the underparts light, a pale sand or ginger shade.

The Bengal fox is more daintily built than the red fox (*V. vulpes*), and can readily be recognized by its bushy, black-tipped tail, which is around 50–60% of the length of the head and body.



*“I have learned a lot from trees;  
Sometimes about the weather,  
Sometimes about animals,  
Sometimes about the Great Spirits.”*

*~Tatanga Man*

“ હું વૃક્ષો પાસેથી ઘણું શીખ્યો છું;  
ક્યારેક હવામાન વિશે,  
ક્યારેક પ્રાણીઓ વિશે,  
ક્યારેક મહાન આત્માઓ વિશે. ”

~ ટાટાંગા મણિ

**Week 31** highlighted the Greater Flamingo (*Phoenicopterus roseus*) and the Sri Sayajibaug Zoo, Vadodra, Gujarat. Out of the world's six species of Flamingos, Greater Flamingos have the most widespread distribution. They have an attractive appearance as their feathers are pinkish/white, the wing coverts are red and the primary and secondary flight feathers are black. They have long pink bills with a black tip, yellow eyes, and long pink legs. The Sri Sayajibaug Zoo is among the oldest zoos in India and was built by Maharaja Sayaji Rao Gaekwad III. The zoo is located in the heart of Vadodara city on the bank of the Vishwamitri river and contributes to the environment by playing its part as the green lungs of the city. Activities hosted by the zoo during the week included webinars on the prevalence of the species in-focus in the state of Gujarat and its ecology. Online photography and quiz competitions were organized to reach out to a diverse audience.



# WEEK 31

October 11 to October 17, 2021

## GREATER FLAMINGO

*Phoenicopterus roseus*



**Sri Sayajibaug Zoo, Vadodara**

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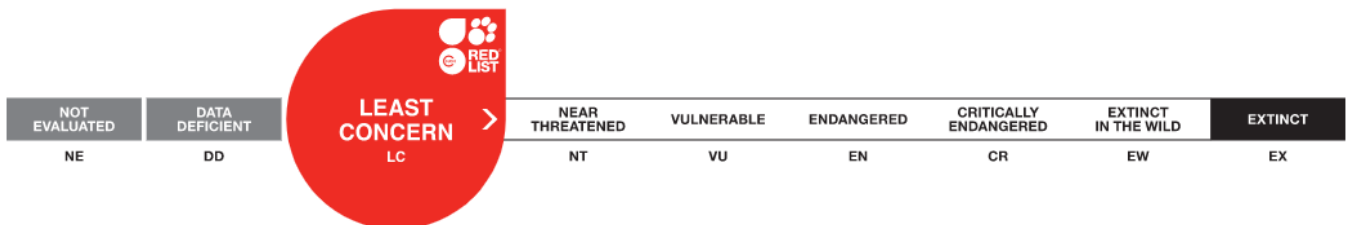
# SPECIES & ZOO IN FOCUS

## GREATER FLAMINGO

*Phoenicopterus roseus*

**Wild Life (Protection) Act, 1972: Schedule IV**

**IUCN Red list status: Least Concern**



The Greater Flamingo is one of the largest flamingos in the world. They have a pinkish-white head, neck, and body plumage. Juveniles are much paler in comparison to adults with grey-brown plumage with some pink in the underparts and wings. The colouration in their plumage comes from the carotenoid pigments in the organisms that they feed on. The secretions of the preen/oil gland also contain carotenoids and during the breeding season, they increase their preening frequency to enhance their colour.

Flamingos inhabit shallow eutrophic water bodies such as saline lagoons, salt pans, and large saline or alkaline lakes. Nesting and roosting are usually on sandbanks, mudflat islands, or boggy and open shores. The greater flamingos nest in large dense colonies on mudflats or islands of large water bodies with a distance of 20 to 50 cm between neighbouring nests. The nest is usually an inverted cone of hardened mud with a shallow depression on the top. They lay a single chalky-white egg in the nest.

The diet of the greater flamingo consists of crustaceans (especially brine shrimp *Artemia salina*), molluscs, annelid worms, larval aquatic insects, small fish, adult terrestrial insects, the seeds or stolons of marsh grasses, algae, diatoms, and decaying leaves. It may also ingest mud in order to extract organic matter.

Habitat disturbance and degradation due to anthropogenic activities and disease outbreaks are the major threats to the species. It has been accorded protection nationally (Wildlife (Protection) Act, 1972) and internationally (CITES). There are 13 individuals housed in 5 zoos across India.

## SRI SAYAJIBAUG ZOO

The zoo was established by the vision of Sayajirao Gaekwad III, the Maharaja of Baroda. It is established in Vadodara on the bank of the Vishwamitri river. The zoo initially housed the private collection of animals of the Maharaja and has since also become a center for education and research. Located in the heart of the city, the zoo also acts as the green lungs. Presently, the zoo houses 61 species of birds, 19 species of mammals, and 9 species of reptiles.



**Expert Speaker: Dr. Anika Tere**  
Topic: "Greater Flamingos in Gujarat: Captivity and Conservation"  
11/10/2021, Monday

**Expert Speaker: Shri Uday Vora**  
Topic: "Gujarat: The Home State of Flamingos" & Online Drawing Competition  
12/10/2021, Tuesday

**Online Drawing Competition**

**"Know Your Species, Know Your Zoo"**  
Expert Speaker: Dr. Goldin Quadros & Talk on Zoo: Dr. Pratyush Patankar  
13/10/2021, Wednesday

**Expert Speaker: Mr. Dhaval Varagiya**  
Topic: "Courtship Behaviour of Flamingos"  
14/10/2021, Thursday

**Online Photography Competition**  
15/10/2021, Friday

**Online Quiz Competition**  
16/10/2021, Saturday

**Quiz Competition**

**Closing Ceremony & Winner Announcements**  
17/10/2021, Sunday

**"CONSERVATION TO CO-EXISTENCE: THE PEOPLE CONNECT"**

4:11 PM | Expert Lecture on "Greater Flamingos in Gujarat: C..."

**Nesting in Wetland Areas**  
Flamingos are Colonial Nesters

Meeting controls and participant list are visible on the right side of the screen.

**Nesting colony of Flamingos**

Anika Tere

Via Cisco Webex

Dr. Goldin Quadros | Arundhati Mohanty | Dr. Pratyush Patankar | CZA | Manav Mehta

**Behaviors**

- Head Flapping:** Flamingos walk with their neck stretched and flap their head from side to side. This movement is the most part of the waltz which constitutes a full display.
- Preening:** Flamingos preen their feather during several seconds, sometimes minutes. This behavior is often followed by a head-bobbing.
- Knee-bowling:** Flamingos dip their bill in water before taking it out immediately.
- Wing-bowling:** In a sudden, rather butterfly-like movement, flamingos throw open their wings to their full extent, holding them as much as 90° behind the plane of the body, for 2-3 seconds. Since the back of wings is composed of black smoothen and crimson wing-coverts, this movement produces a flash of color.
- Inverted Wing Salute:** Flamingos bob forward from the erect position in a "bobbing stage" as far as the neck and head together from the chest. The neck is extended straight forward and in line with the body. At the same time, the wings are fluttered rapidly open, providing a flash of red.
- Twice-press:** In a sudden movement, flamingos raise their head and neck back to one side, drop down the wing on the same side and appear to preen behind the wing. An individual may repeat this movement several times in a quite rapid succession.
- Scratching:** In a lowered position, flamingos scratch their neck with their feet just behind the chin.
- Marching:** Flamingos move together in groups, first marching in one direction, then in another.
- Wing-leg stretch:** Flamingos stretch out one wing and the leg on the same side for 1-2 seconds, usually in a dating context movement.

Greater Flamingo Behavior and partner selection  
Courtesy Siddhesh D. Bhave  
Source: Perrot et al., 2016

Mehta | Arundhati Mohanty | Dr. Pratyush Patankar | Dr. Goldin Quadros | Dr. Suchit Pandya

**Redevelopment Pictures - PHASE II: Aviary**

Walk-In Aviary - Indian Aquatic Birds | Individual Bird Cages - Parrot Section  
Walk-In Aviary - Exotic Birds | Individual Bird Cages - Pheasant Section

4:54 PM | Expert Lecture on "Greater Flamingos in Gujarat: C..."

**Literatures...**

**Flamingo Husbandry Guidelines**  
A Joint Effort of the AZA and EAZA in Cooperation With WWF

**Flamingo**  
Bulletin of the IUCN-SSC/Wetlands International FLAMINGO SPECIALIST GROUP

**Special Publications**  
Proceedings of the 1st International Workshop on the Greater Flamingo in the Mediterranean Region and the Black Sea

Meeting controls and participant list are visible on the right side of the screen.

*“It is only on the condition of humility and reverence before the world that our species will be able to remain in it.”*

*~Wendell Berry*

“વિશ્વ સમક્ષ નમ્રતા અને આદરની શરતે  
જ આપણી પ્રજાતિ તેમાં રહી શકશે.”

~ વેન્ડેલ બેરી

**Week 32** showcased the Lesser Florican (*Sypheotides indicus*) and the Indroda Nature Park, Gandhinagar, Gujarat. The Lesser Florican, also known as the “likh” or “kharmore”, is the smallest in the Bustard family and the only member of the genus *Sypheotides*. It is endemic to the Indian Subcontinent where it is found in tall grasslands and is best known for the leaping breeding displays by the males during the monsoon. The Indroda Nature Park was established with the vision to spread awareness about species and habitat conservation. During the week the zoo broadcast a series of informative videos on the wildlife in grasslands & wetlands that highlighted the habitats & conspecifics of the Lesser Florican and Bar-headed Goose. They additionally organized webinars and cleanliness drives.



# WEEK 32

October 18 to October 24, 2021

## LESSER FLORICAN

*Sypheotides indicus*



**Indroda Nature Park, Geer Foundation**

© By Suman Dasgupta, <https://sdphoto.space/>

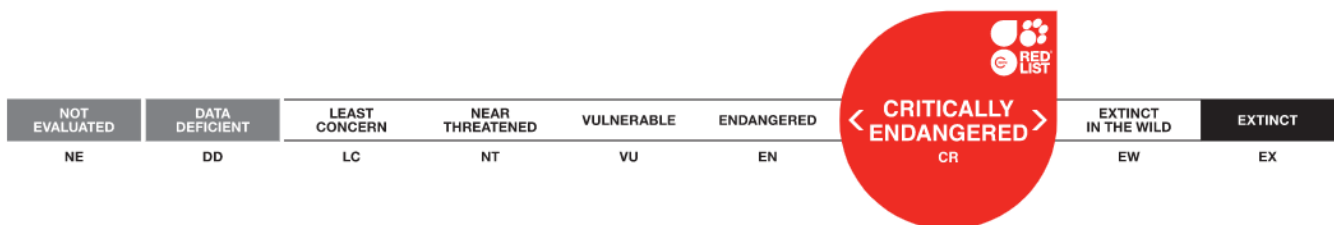
# SPECIES & ZOO IN FOCUS

## LESSER FLORICAN

*Sypheotides indicus*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Critically Endangered**



The Lesser Florican is the smallest in terms of size in the bustard family and is monotypic i.e., the only member of the genus *Sypheotides*. It is endemic to the Indian Subcontinent with distribution in South Pakistan, North and West India and South West Nepal. It inhabits flat open grasslands particularly dominated by *Sehima nervosum* and *Chrysopogon fulvus*, scrubland and crop fields of cotton and millet.

This species is unique amongst the bustard family due to the males having the presence of 4-6 up curving black plumes that project from behind its head. Females lack this ornamental head plume. The Lesser florican is best known for the leaping display that the males engage in during the breeding season. This advertisement display serves to repel rivals from their territory and attract females. They also show strong site fidelity during the breeding season which is usually from July to September. Females lay 3-5 eggs that are dirty pale yellow with blackish stripe in colour. They nest on the bare ground usually in a patch of grass or in crop fields.

It is omnivorous, feeding on shoots, grass, herbs, seeds, berries, grasshoppers, beetles, centipedes, lizards and frogs. Communication amongst the species is through a short whistle when disturbed or threatened and by a frog-like croak during the breeding season.

The Lesser Florican is predominantly threatened due to habitat loss and reduction in primary grassland areas. The species is protected at both national (Wildlife (Protection) Act, 1972) and international (CITES II) levels. The species is presently not housed in any zoo.

## INDRODA NATURE PARK

The park occupies a total area of 428 hectares which is divided into two parts along the banks of the river Sabarmati. It includes 157 ha along the western bank and 271 ha along the Eastern bank. The land of the park on the western bank supports over 1.33 lakh indigenous trees interspersed with ornamental exotic trees, The Indroda nature park was initially established as a deer park in 1978 by the forest department which has been subsequently upgraded to a medium category zoo post the establishment of the GEER [Gujarat Ecological Education and Research] foundation by the Forest and Environment Department, Government of Gujarat. Presently, the zoo houses 21 species of birds, 9 species of mammals, and 11 species of reptiles.









**75 Weeks 75 Species 75 Zoos**  
**Conservation to co-existence: The people's connect**  
**18 October 2021 to 24 October 2021**





**Lesser Florican**  
(*Syphotides indicus*)

**Info-talk on "Lesser Florican- a jewel of grasslands"**  
 Resource Persons  
   
 Dr. Sandeep Munjpara, Scientist, GEER Foundation | Shri Jigar Joshi, SRF, GEER Foundation  
 Anchor: Shri Alap Pandit, Nature Educator, GEER Foundation  
**18-10-2021**

**Online Quiz**



**"Grasslands and their wildlife"**  
**19-10-2021 to 23-10-2021**

**Online Photography Contest**



**"Avian/Wildlife of Grasslands and Wetlands"**  
**19-10-2021 to 23-10-2021**

**"Know your Species, Know Your Zoo"**  
 Expert Speaker | Talk on Zoo

   
 Mr. Sujit Narwade, Project Scientist, BNHS | Ms. Vibha N. Goswami, Dy. Director (R.&D.), GEER Foundation  
**20-10-2021**

**Info-talk on "Bar-headed Goose - a denizen of wetlands and the champion of the sky"**  
 Resource Persons

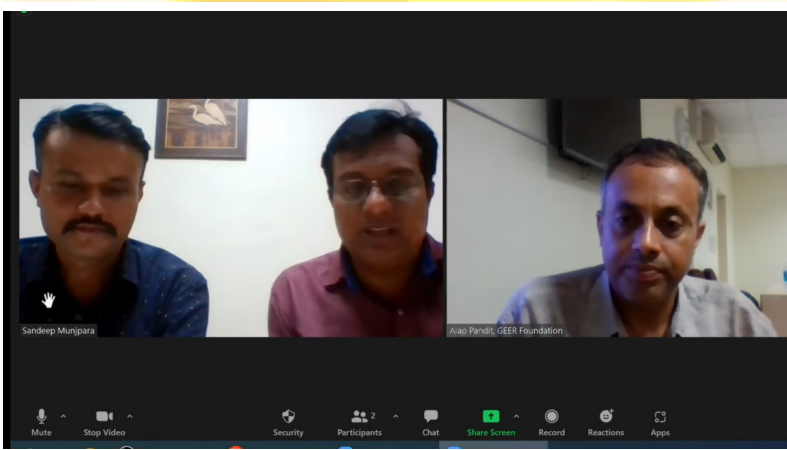
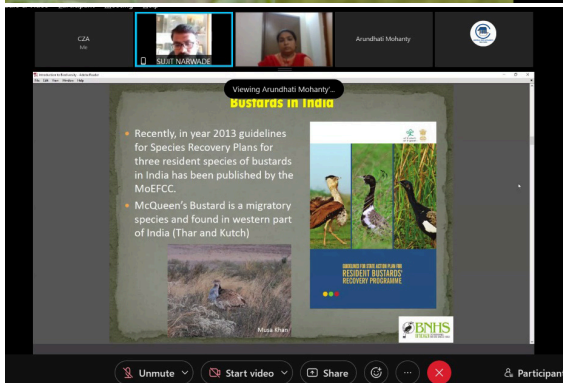
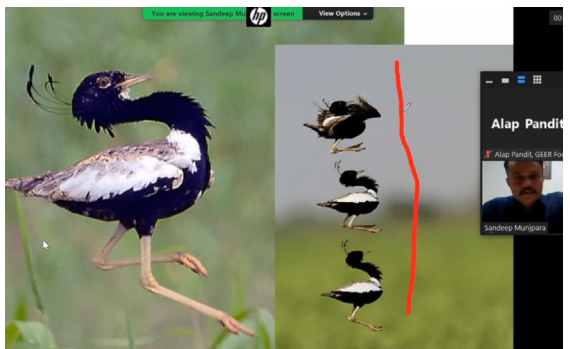
   
 Dr. Devanshi Joshi, RA, GEER Foundation | Ms. Kinjal Joshi, SRF, GEER Foundation  
 Anchor: Shri Alap Pandit, Nature Educator, GEER Foundation  
**21-10-2021**

**Release of informative videos on the subjects related to wildlife in grasslands and wetlands**  
**22-10-2021**

**Elocution Competition on "Co-existing with wildlife - the only option for human survival"**  
 Eco Club School Students std. 8-12  
 Eco Club College Students  
**23-10-2021 and 24-10-2021**



**Bar-headed Goose**  
(*Anser indicus*)



*“There is nothing in which the birds differ more from man than the way in which they can build and yet leave a landscape as it was before.”*

*~ Robert Wilson Lynd*

**“ पक्षी और मनुष्य में यही अंतर है की वह एक परिदृश्य में निर्माण करने के बावजूद उसमें बदलाव नहीं आने देते । ”**

*~ रॉबर्ट विल्सन लिंड*

**Week 33** highlighted Indian Peafowl (*Pavo cristatus*), India’s National Bird, native to the Indian subcontinent, and Mini Zoo, Pipli, Haryana. The male is brightly colored, with a predominantly blue, fan-like crest of spatula-tipped, wire-like feathers and a long train (tail). The tail is made up of elongated upper-tail covert feathers with colorful eyespots that are raised into a fan and quivered in a display during courtship. Despite the length and size of these covert feathers, peacocks are still capable of flight. Females lack the train and have a greenish lower neck and duller brown plumage. The Peafowl is considered sacred in Indian culture. The Mini Zoo, Pipli is home to several free-ranging Indian Peafowls and as part of the week’s activities, organized various competitions, and guided tours in the zoo for school children to further awareness of the species, its habitat and highlight the threats faced by this species seen commonly around houses and farms in semi-urban and rural India.



# WEEK 33

October 25 to October 31, 2021

## PEAFOWL

*Pavo cristatus*



**Mini Zoo, Pipli, Haryana**

© By Nihaljabinedk - Own work, CC BY-SA 4.0

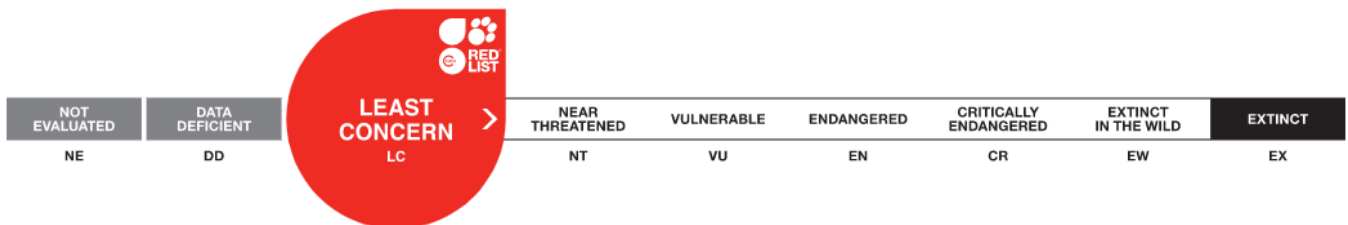
# SPECIES & ZOO IN FOCUS

## PEAFOWL

*Pavo cristatus*

**Wild Life (Protection) Act,1972: Schedule I**

**IUCN Red list status: Least Concern**



The Indian Peafowl is the National bird of India. It is a large-sized bird distributed from the south of the Indus river throughout the Indian subcontinent across India, Bangladesh, Nepal, Bhutan, Pakistan, and Sri Lanka. The species favors a variety of habitats ranging from dry and moist deciduous forests near streams to thin scrubby woodland interspersed with cultivation. They are omnivorous with food ranging from seeds, flower buds, tender shoots of crops, fruits, worms, arthropods, reptiles, and small mammals.

The Indian peafowl is sexually dimorphic with the males being brightly colored with a fan-shaped crest on the head and are known for their magnificent display of their stunning blue and green tail feathers spread like a fan during courtship, for all the discerning females. Females are relatively less colourful.

Territoriality is observed by males during the breeding season with males exhibiting territorial spacing and having 1-4 display sites in each territory. The males also keep returning to display sites and usually roost and nest near them. The peafowls form leks and are polygynous i.e. they mate with more than 1 peahen. They build nests on the ground usually after the monsoon begins. The nest occupies a shallow depression and is lined with sticks, grasses, and leaves. 4-6 eggs are laid in one clutch and are incubated for about 28 days by the female.

The species is protected nationally (Wildlife (Protection) Act,1972) and internationally (CITES). 889 individuals are housed across 80 zoos and rescue centres in India. The Indian Peafowl is also common as a free-ranging species in several zoos across the country.

## MINI ZOO, PIPLI

Mini Zoo, Pipli, is located on the National Highway-1 aka G.T. road and falls within the Kurukshetra district. It was initially established as a Deer Park in the year 1982 on an area of 7.20 hectares in Pipli Protected forest. It has since been upgraded to a Mini Zoo in 2005 and is currently spread over 10.83 hectares. The zoo has become popular due to its nicely designed enclosures and appealing green campus which is an excellent site for a getaway for city dwellers. Presently, the zoo houses 4 species of birds and 8 species of mammals.



1	25-10-2021 Monday	Drawing Competition
2	26-10-2021 Tuesday	Essay / Poetry Writing Competition
3	27-10-2021 Wednesday	Expert Talk " Know your species, know your Zoo talk
4	28-10-2021 Thursday	Guided Tour Of Zoo For Students Of Nearby School
5	29-10-2021 Friday	Biodiversity Talk In School in Adjoining Area Of Zoo And Polythene Collection Drive
6	30-10-2021 Saturday	Plantation / Guided Trip Of Students In The Zoo
7	31-10-2021 Sunday	Prize Distribution



*“Everyone likes birds. What wild creature is more accessible to our eyes and ears, as close to us and everyone in the world, as universal as a bird?”*

*- David Attenborough*

“ पक्षी सार्वभौमिक हैं, क्योंकि वह सबको पसंद आ जाती हैं | ऐसा और कोई प्राणी नहीं है जो इतना सुलभ है की वोह दोनों आँखों और कानो को रिझाये। ”

~ डेविड एटनबरो

**Week 34** highlighted the House Sparrow (*Passer domesticus*) and Rohtak Zoo, Rohtak, Haryana. House Sparrows are small birds that are strongly associated with human habitation predominantly due to their grainivorous diet. Sparrows also have prominence in different cultures. The Rohtak Zoo, located inside the Tilyari Lake Complex is a major tourist attraction in the region. Students from nearby schools and visitors were educated with talks on local biodiversity, guided zoo tours, and plantation drives in the lake complex of native trees. A special drawing competition for students of class 6<sup>th</sup> to 8<sup>th</sup> from nearby schools on the theme “An animal in the zoo” was organized.



# WEEK 34

November 1 to November 7, 2021

## HOUSE SPARROW

*Passer domesticus*



**Rohtak Zoo, Haryana**

© <https://pixabay.com/>

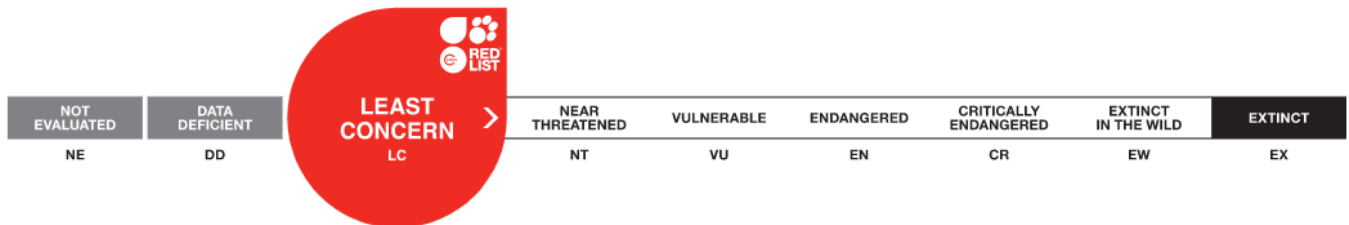
# SPECIES & ZOO IN FOCUS

## HOUSE SPARROW

*Passer domesticus*

**Wild Life (Protection) Act, 1972: Schedule IV**

**IUCN Red list status: Least Concern**



The House Sparrow is a widespread native species in India and is the most commonly found bird species in cities. It is the state bird of Bihar and Delhi. The species inhabits areas that are associated with human habitation such as farmlands, rural and urban areas, and usually avoids densely forested areas. Although predominantly considered grainivores, House sparrows are usually opportunistic feeders with their diet ranging from seeds to insects and plant matter.

They are sexually dimorphic; the male is dark brown, with a black bib, grey chest, and white cheeks, whereas the female is light brown in colour. They typically breed from September to October or between January to July and have a monogamous mating system. Nests are usually situated in nooks and crannies inside and on buildings and other structures. They also prefer to use holes in cliffs or trees to build nests and also readily use nest boxes. Males do nest-site displays at their roosting sites and defend their territories (usually centered around nesting sites) strongly.

The nest composition is of dried vegetation with coarse material outside and finer material for lining often including feathers, string, and paper. House sparrows lay multiple broods throughout the year with 4-5 eggs in each clutch. Typically, 2-3 fledglings per brood survive.

The species is protected by the Wildlife (Protection) Act, 1972. It is listed as Least Concern by IUCN owing to its vast distribution range and abundance. The species is currently not housed in any zoo.

## ROHTAK ZOO

The zoo is located in the Tilyar tourist complex which is a major tourist attraction in Haryana. It was initially established as a Mini Zoo and was subsequently upgraded to a small zoo in 2014 due to expansion to 16.69 hectares. Presently, the zoo houses 17 species of birds, 10 species of mammals, and 1 reptile species.



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Speaking: Anukul Viewing Anukul's application...

MALE FEMALE

Male house sparrows have a black bib, black face mask and a chestnut brown head with a grey crown. Broad white wing bar

**Sexually dimorphic**  
**Diet:** seeds, shoots, kitchen-scrap, insects  
**Longevity:**  
 Typical lifespan - 3 years  
 Max recoded - 12 years  
**Breeding Ecology:**  
 Clutch size: 4-5 eggs  
 No. broods: 2-3 (4)  
 Incubation: 13-15 days  
 Young in nest: 15-17 days

The species is one of the most widely distributed and common birds in the world, represented by 12 different subspecies (Summers-Smith, 2009).

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Speaking: Anukul

Mean abundance of sparrow

Degree of urbanization

Unmute Start video Share Participants Chat



*“Never does nature say one thing and wisdom another.”*

*~ Juvenal, Satires*

“ਕੁਦਰਤ ਕਦੇ ਵੀ ਇੱਕ ਗੱਲ ਨਹੀਂ ਕਹਿੰਦੀ ਅਤੇ  
ਸਿਆਣਪ ਹੋਰ।”

~ ਜੁਵੇਨਲ, ਵਿਅੰਗ

**Week 35** The Nilgai (*Boselaphus tragocamelus*) and Patiala Zoo, Sular, Punjab were the focus of activities in week 35. The Nilgai is the largest Asian antelope and is native to the Indian subcontinent. It is characterized by a sloping back, deep neck with a white patch on the throat, short crest of hair along the neck terminating in a tuft, and white facial spots. Their forelegs are generally longer, and often marked with white “socks”. Sexual dimorphism is prominent – while females and juveniles are orange to tawny, adult males have a bluish-grey coat. Only males possess horns. Patiala zoo, which is situated in the Bir Moti Bagh Wildlife Sanctuary, was the first deer park in the state. The zoo organized numerous activities, attended by school children and visitors alike, to generate awareness on the Nilgai and the zoo. Talks were conducted by species experts and zoo keepers on the species in focus. Sensitization sessions about the species were organized for people living in villages close to Mehas and Bhadson wildlife sanctuaries.



# WEEK 35

November 8 to November 14, 2021

## NILGAI

*Boselaphus tragocamelus*



**Patiala Zoo, Patiala, Punjab**

© <https://www.toehold.in/>

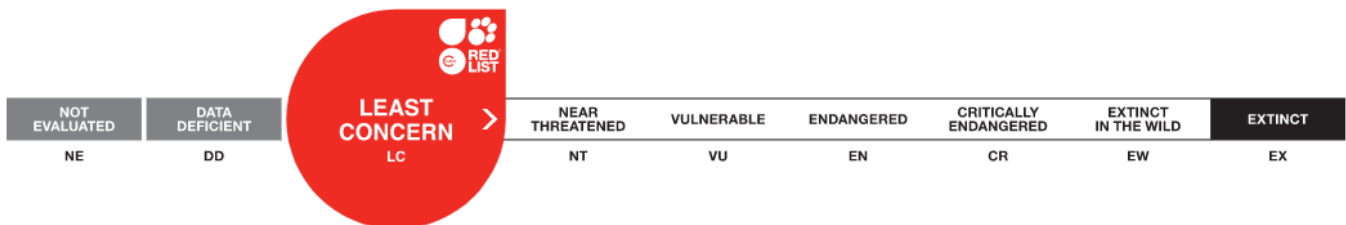
# SPECIES & ZOO IN FOCUS

## NILGAI

*Boselaphus tragocamelus*

**Wild Life (Protection) Act, 1972: Schedule III**

**IUCN Red list status: Least Concern**



Nilgai is endemic to the Indian subcontinent but has been introduced to Mexico and USA. In India, it is found widely distributed with presence recorded across the Himalayan foothills, Punjab plains through western and central India to the Odisha coast, and south to the Nilgiris. It is a large-sized antelope and the sole member of the genus *Boselaphus*. They are habitat generalists and inhabit arid areas, scrublands, grassy plains, dry deciduous open forests, and agricultural areas. They usually avoid dense forests and deserts.

They are sexually dimorphic with the males having a bluish-grey coat colour and the females and calves having a sandy brown coat. Nilgai is diurnal by habit. The breeding season varies based on its geographic location and can typically occur throughout the year. During the season, the rutting males become aggressive and fight amongst themselves in a show of dominance. Post copulation, the gestation period usually lasts eight to nine months with the birth of a single calf or twins. Territories are marked by the formation of dung piles.

They are both; browsers and grazers typically having a preference for feeding on grasses and herbs. Apart from which they also feed on flowers, foliage, pods and fruits. Nilgai is not a very vocal species with intraspecific communication being limited to threat perception.

The species is protected by the Wildlife (Protection) Act, 1972. It is listed as Least Concern by IUCN owing to its vast distribution range and abundance. It is threatened by persecution owing to the species being considered as an agricultural pest. There are 494 individuals housed in 42 zoos across India.

## PATIALA ZOO, PATIALA

The Patiala zoo is also popularly known as Moti Bagh Deer Park. It was initially established as a deer park in 1968 within the Bir Moti Bagh Wildlife Sanctuary and was the first deer park of the Punjab Forest and Wildlife Preservation Department. Over the years it has been upgraded to a small category zoo spanning 23 hectares. Presently, the zoo houses 16 species of birds, 10 species of mammals, and 1 reptile species.





*“I hold that, the more helpless a creature, the more entitled it is to protection by man from the cruelty of man.”*

*~ Mahatma Gandhi*

“ ਮੇਰਾ ਮੰਨਣਾ ਹੈ ਕਿ ਇੱਕ ਜੀਵ ਜਿੰਨਾ ਜ਼ਿਆਦਾ ਬੇਸਹਾਰਾ ਹੈ, ਉਹ ਮਨੁੱਖ ਦੁਆਰਾ ਮਨੁੱਖ ਦੀ ਬੇਰਹਿਮੀ ਤੋਂ ਸੁਰੱਖਿਆ ਦਾ ਵਧੇਰੇ ਹੱਕਦਾਰ ਹੈ। ”

~ ਮਹਾਤਮਾ ਗਾਂਧੀ

**Week 36** showcased the Barn Owl (*Tyto alba*) and M.C. Zoological Park, Chhatbir, Punjab. The Barn Owl is one of the most widely distributed species of owl in the world. It is easily recognized by its conspicuous heart-shaped face, which is usually bright white (in some subspecies it is brown). Barn Owls and other owls often find reference in mythology often making them vulnerable to threats of poaching, especially during festivals. The relevance and conservation need for the species were brought into focus by M.C. Zoological Park with digital awareness shows, in-person workshops, and dedicated poetry sessions on owls. The events had in-person and online participation by zoo visitors, school students, and members of different activity clubs based out of Punjab.



# WEEK 36

November 15 to November 21, 2021

## BARN OWL

*Tyto alba*



**M. C. Zoological Park, Chhatbir, Punjab**

© Ronan Furuta, unsplash.com

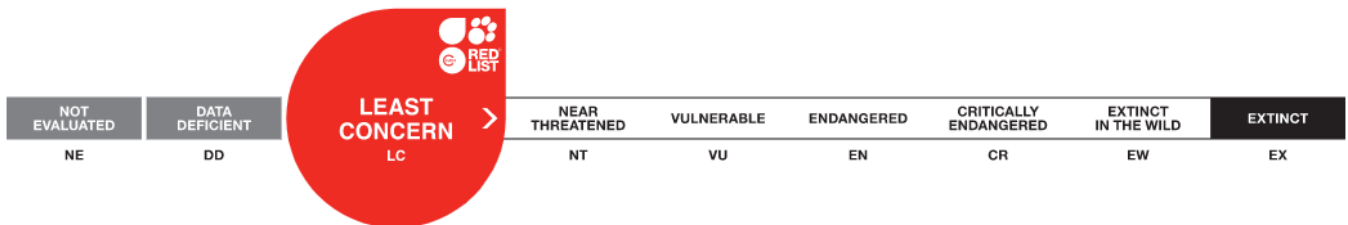
# SPECIES & ZOO IN FOCUS

## BARN OWL

*Tyto alba*

**Wild Life (Protection) Act, 1972: Schedule IV**

**IUCN Red list status: Least Concern**



Barn owls are widely distributed occupying a broad range of open habitats, in urban to rural landscapes, favouring lower elevations in most of its distribution range. They are medium-sized with a pale buff-coloured plumage. Their head is big and lacks ear tufts, their facial ruff is also conspicuous (heart-shaped).

They are usually nocturnal; they forage within their home ranges for prey with their acute sense of hearing. Their diet comprises rodents, bats, birds, reptiles, amphibians and arthropods. Barn owls are usually monogamous and show fidelity to nesting sites, actively defending their immediate vicinity.

Breeding season is usually during summer when there is an increased prey base. They are usually cavity nesters nesting in hollows of trees, fissures in cliff faces, rock outcrops, caves and manmade structures such as old/abandoned buildings. They are also known to use artificial nest boxes. Communication is with a diverse range of calls and is often associated with the breeding season. They emit a hissing vocalization when threatened or disturbed.

In India, the species is threatened by habitat and nesting site loss owing to urbanisation and is also commonly involved in illegal trade. They are a protected species in India through inclusion in the schedule of the Wild Life (Protection) Act, 1972. It is listed as Least Concern by IUCN owing to its vast distribution range and abundance. There are 127 individuals housed in 26 zoos across India.

## M. C. ZOOLOGICAL PARK

The M.C. Zoological Park locally known as Chhatbir zoo is located at a distance of 17 kilometres from Chandigarh. It spreads over an area of 202 hectares. Its major attractions include a wildlife safari, bird park, nocturnal house and otter house. A one of a kind interactive Dinosaur park has also been developed within the zoo premises for visitors. Presently, the zoo houses 60 species of birds, 41 species of mammals, and 13 reptile species.





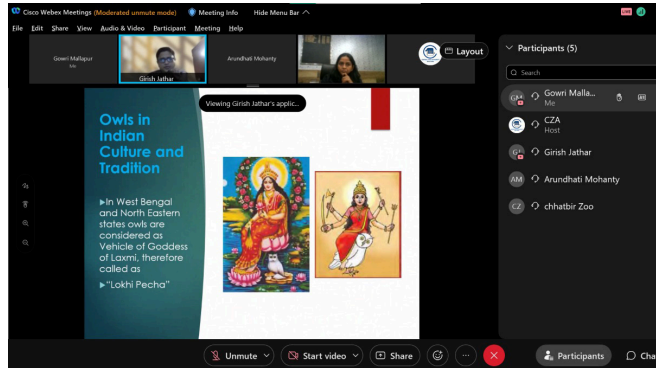
# Chhatbir Zoo



Azadi Ka Amrit Mahotsav is an embodiment of all that is progressive about India's socio-cultural, political and economic identity. Commenced on 12th March 2021 as a 75 week countdown to our **75th anniversary of Independence** and will end on 15th August 2023.

In lieu of this, the week of 15th November - 21st November 2021 would be observed as the awareness campaign of **Owl Conservation Awareness Week** by Chhatbir Zoo as under:

- 15th November 2021.....11.00 to 12.00 noon  
**Outreach Activity**  
Awareness Campaign at Rural Government School at Village Chhat
- 16th November 2021.....2.00 to 3.00 (pm)  
**Digital Awareness Show at Chhatbir Zoo Interpretation Centre**
- 17th November 2021.....4:00 to 5:00 (pm)  
**Online Session on Owls & Chhatbir Zoo hosted by CZA**
- 18th November 2021.....4:00 to 5:00 (pm)  
**Outreach Activity at Police Station, Zirakpur**
- 19th November 2021.....2:00 to 4:00 (pm)  
**Zoo Keeper's Talk at Nocturnal House**
- 20th November 2021.....4:00 to 5:00 (pm)  
**Outreach Activity**  
Awareness Campaign with NGO Group at Community Centre, Mohali
- 21st November 2021.....5:00 to 6:00 (pm)  
**Dedicated Poetry Session on Owls**  
Online Poetry Session - Kavya Sandhya

*“How can a deer tell when a leaf falls silent in the forest? She hears it breathing differently.”*

*~ Richard Bach*

“ ਇੱਕ ਹਿਰਨ ਕਿਵੇਂ ਦੱਸ ਸਕਦਾ ਹੈ ਜਦੋਂ ਇੱਕ ਪੱਤਾ ਜੰਗਲ ਵਿੱਚ ਖਾਮੋਸ਼ ਹੋ ਜਾਂਦਾ ਹੈ? ਉਹ ਇਸ ਨੂੰ ਵੱਖਰੇ ਢੰਗ ਨਾਲ ਸਾਹ ਲੈਂਦਾ ਹੈ. ”

~ ਰਿਚਰਡ ਬਾਚ

**Week 37** focused activities on the Spotted Deer (*Axis axis*) and Mini Zoo cum Deer Safari, Bathinda, Punjab. Spotted Deer also known as Chital are easily identified in the wild due to their magnificent antlers (having three tines), spotted the body, and short tail. They are native to the Indian subcontinent and are usually observed in groups. The Mini Zoo cum Deer Safari, Bhatinda which is situated within the Bir Talab Forest organized zoo keeper talks, digital shows on the species in focus, and a cycle rally among other activities to generate awareness of this common and popular species.



A photograph of a spotted deer with large, light-brown antlers. The deer is standing in a natural, outdoor setting with trees and dry ground in the background. The deer's coat is brown with white spots, and its legs are a lighter, greyish-brown color. The antlers are long and have several points.

# WEEK 37

November 22 to November 28, 2021

## SPOTTED DEER

*Axis axis*

**Mini Zoo cum Deer Safari, Bathinda, Punjab**

© Mamun Srizon, unsplash.com

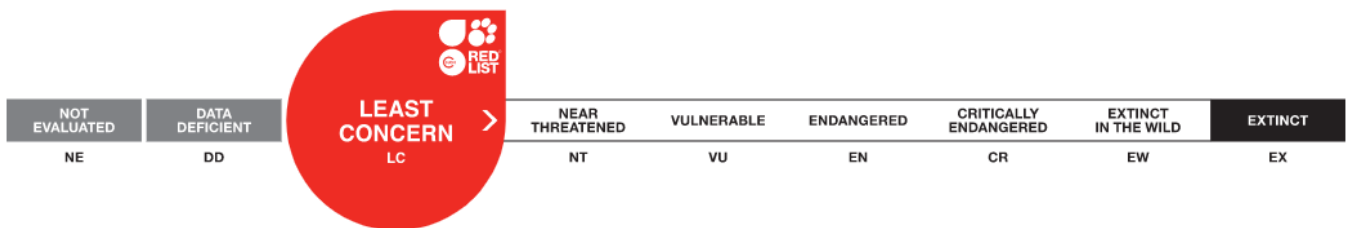
# SPECIES & ZOO IN FOCUS

## SPOTTED DEER

*Axis axis*

**Wild Life (Protection) Act, 1972: Schedule III**

**IUCN Red list status: Least Concern**



The Spotted deer commonly known as Chital is native to the Indian subcontinent with its distribution being throughout peninsular India. It thrives in a variety of habitats particularly inhabiting grassland-deciduous forest ecotones, swampy meadows, plantations, riparian forests, mangroves and scrublands. They are predominantly present at forest edges.

It is a medium-sized deer with a reddish-brown coat that varies based on its geographic location. Sexual dimorphism is present with males having antlers and being larger in size than females. The antlers are lyre-shaped with three tines (a long brow tine and two branch lines). They have a prominent white patch on the throat and a dark-brown stripe running down the back.

Spotted deer are gregarious by nature and form small herds that comprise an adult female and her offspring. Large-sized herds are usually formed during the monsoon. They are diurnal by habit, showing peak activity as dusk approaches. When threatened they flee in groups. Males mark their territories using scent. They breed throughout the year with rutting males dissociating from their herds during the period. The male follows and guards the female during this period. Females give birth to one fawn. Predominantly, Chitals are grazers but they also browse on leaves, flowers and fruits. They vocalize by bellows and alarm barks.

Their population is protected under the Wildlife (Protection) Act, 1972 and the population is largely stable within its distribution range. More than 9443 individuals are housed in 96 zoos across India.

## MINI ZOO CUM DEER SAFARI, BATHINDA

Mini Zoo cum Deer Safari, Bathinda is established within the Bir Talab Block Forest. It is located at a distance of 6km from the town of Bhatinda and spreads over an area of 161 acres. The dominant vegetation of the area is deciduous with Mulberry (*Morus alba*), Neem (*Azadirachta indica*), Arjun (*Terminalia arjuna*), Shisham (*Dalbergia sissoo*). Presently the zoo houses 8 species of birds and 7 mammal species.





**Week 37 - Spotted Deer**  
22th to 28th Nov. 2021

**75**  
India

**Conservation to co-existence:  
The people's connect**

**#75Weeks75Species75Zoos**

**Monday, November 22, 2021**  
Zookeeper Talk

**Tuesday, November 23, 2021**  
Digital shows about Spotted Deer

**Wednesday, November 24, 2021**  
"Know your species, Know your zoo talk"  
Talk on spotted deer 4 to 5 pm

**Thursday, November 25, 2021**  
Wildlife Conservation awareness lecture at school

**Friday, November 26, 2021**  
Essay Writing Competition (Topic: Leftover Lunch and its environmental impacts)

**Saturday, November 27, 2021**  
Cycle Rally

**Sunday, November 28, 2021**  
Guided tour for Central university Punjab Zoology  
Department Students



**BNHS**  
INDIA  
CONSERVING  
NATURE SINCE 1983



**75**  
Azadi Ka  
Amrit Mahotsav



*“One touch of nature makes the whole world kin.”*

*~ William Shakespeare*

“ ਕੁਦਰਤ ਦੀ ਇੱਕ ਛੋਹ ਸਾਰੇ ਸੰਸਾਰ ਨੂੰ  
ਰਿਸ਼ਤੇਦਾਰ ਬਣਾ ਦਿੰਦੀ ਹੈ। ”

~ ਵਿਲੀਅਮ ਸ਼ੈਕਸਪੀਅਰ

**Week 38** showcased the Northern Goshawk (*Accipiter gentilis*) as the species in focus. The Northern Goshawk is a medium-large diurnal bird of prey that is often considered a “true hawk”. Its hunting prowess is widely referred to in literature around the world. The Ludhiana Zoo, Ludhiana, Punjab, situated in the Kadian Reserve Forest, created educational material on the species in focus and its significance in the ecosystem. This material was distributed during talks organized at the local schools and handed out as IEC material to visitors who participated in the activities at the zoo. The outreach activities conducted during the week included various competitions and quizzes for students of different age groups.



# WEEK 38

November 29 to December 5, 2021

## NORTHERN GOSHAWK

*Accipiter gentilis*



**Ludhiana Zoo, Punjab**

© Harum. Koh, Wikimedia Commons

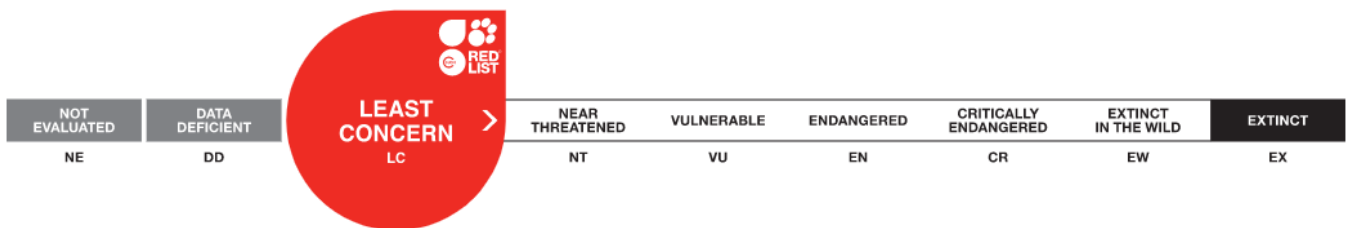
# SPECIES & ZOO IN FOCUS

## NORTHERN GOSHAWK

*Accipiter gentilis*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Least Concern**



The Northern Goshawk is a medium-sized raptor (bird of prey) with long, broad wings and a long rounded tail. They are forest/woodland dwelling species and can be found widespread in deciduous and coniferous forests. Its preferred hunting grounds are near the forest-cultivation ecotones. They are opportunistic hunters with a prey base including birds and small mammals. They reside either solitarily or in pairs and are highly territorial in nature.

The main breeding period in India appears to be March and April but may extend to June. The female defends the nest territory whereas the male provisions for food. They build nests on the forks or branches of large trees. Clutch size is 2-4 eggs with an incubation period of 32-38 days. They are usually silent, except during breeding high-pitched calls can be observed.

The Northern Goshawk is widely referred to in literature around the world for its hunting prowess and is hence associated with bravery and courage. It is also known as the favourite falconry or hunting bird of Guru Gobind Singh, the tenth guru of the Sikhs. It is also the state bird of Punjab.

Protected under the Wildlife (Protection) Act, 1972, the population is largely stable within its distribution range in India. The species is currently not housed in any zoo.

## LUDHIANA ZOO

The Ludhiana zoo was initially established as a Tiger safari in the Kadian reserve forest on the banks of the Sutlej river. Over the years the safari has been upgraded to a small zoo. It is currently spread over 56 hectares and presently houses 10 species of birds and 7 species of mammals.



Department of Forests & Wildlife Preservation, Punjab

**75**  
Azadi Ka  
Amrit Mahotsav

**LUDHIANA ZOO**  
LUDHIANA

Azadi ka Amrit Mahotsav is an embodiment of all that is progressive about India's socio-cultural, political and economic identity. Commenced on 12th March 2021 as a 75 week countdown to our **75th anniversary of Independence** and will end on 15th August 2023.

In lieu of this, the week of 29th November - 5th December 2021 would be observed as the awareness campaign of **Conservation of Northern Goshawk** by Ludhiana Zoo as under:

- 29th November.....12.00 to 1.00 pm  
Online **Webinar on Northern Goshawk**
- 30th November 2021.....11:00 to 1:00 pm  
**Awareness Campaign cum Leaflet Distribution**
- 01st December 2021.....4:00 to 5:00 pm  
Online **Webinar on Raptors**
- 02nd December 2021.....11:00 to 2:00 pm  
**Zoo Keeper's Talk**
- 03rd December 2021.....4:00 to 5:00 pm  
Online **Webinar**
- 04th December 2021.....3:00 to 4:00 pm  
**Dedicated Poetry Session**
- 05th December 2021.....6:00 to 8:00 am  
**Bird Walk**

Help line: +91 80547-53777  
 ludhianazoo@gmail.com  
 @ludhianazoo.official




*“Any glimpse into the life of an animal quickens our own and makes it so much larger and better in every way.”*

*~ John Muir*

“ ज़िन्दगी को सार्थक और बेहतर बनाने की लिए, प्रकृति और वन्य जीव की बस एक झलक ही काफी है । ”

~ जॉन मुइरो

**Week 39** highlighted the Nicobar Long-tailed Macaque (*Macaca fascicularis umbrosus*) and Biological Park, Chidiyatapu, Port Blair, Andaman and Nicobar Islands. The Nicobar Long-tailed Macaque, the species in focus is a subspecies of the Crab-Eating Macaque and is endemic to the Nicobar Islands in the Bay of Bengal. Biological Park, Chidiyatapu is the only zoo in the Andaman and Nicobar Islands. The zoo houses representative species of the island flora and fauna. The zoo hosted various educational activities including drawing/painting, and essay writing competitions. Quiz competitions on the theme 'Environment, Forest, Wildlife and Climate Change were organized for students in nearby schools. Talks on the importance of local biodiversity and conservation were also hosted in schools. A plantation drive was organized at the zoo with registered participants.



**WEEK 39**

December 6 to December 12, 2021

**NICOBAR LONG-TAILED  
MACAQUE**

*Macaca fascicularis  
umbrosus*



**Biological Park, Chidiyatapu,  
Andaman and Nicobar Islands**

© Crisco 1492, Wikimedia Commons

# SPECIES & ZOO IN FOCUS

## NICOBAR LONG–TAILED MACAQUE

*Macaca fascicularis umbrosus*

**Wild Life (Protection) Act,1972: Schedule I**

**IUCN Red list status: Vulnerable**



The Nicobar Long-tailed Macaque (owing to its tail being longer than its body) is also known as the crab-eating macaque belonging to the group of Old World Monkeys. It draws the name crab-eating macaque owing to observations by naturalists of the species foraging for crabs. There are 10 sub-species of the macaque found in Southeast Asia. They are widely distributed, and in India, they are found on the Nicobar Islands. The species is tolerant to a range of habitats and inhabits coastal forests, mangroves, and coconut plantations at sea level in the Nicobar Islands.

The coat color is olive-brown with long and prominent cheek whiskers. They live in social groups called troops consisting of three to 20 females, their offspring, and one or many males. The groups are female bonded i.e. the males disperse at the time of puberty. The gestation period is 162-193 days with the female giving birth to one infant.

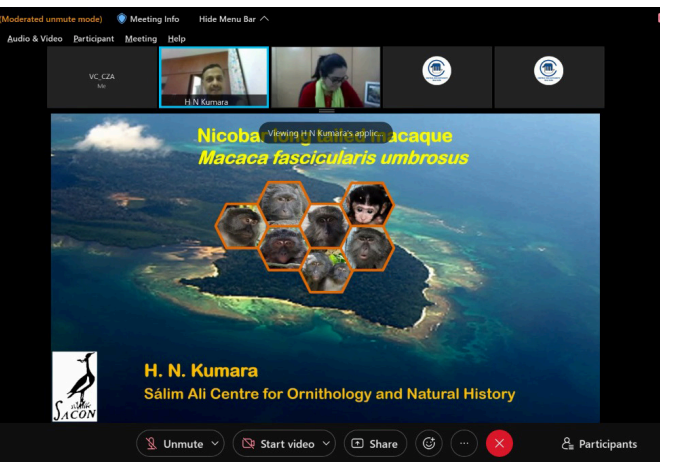
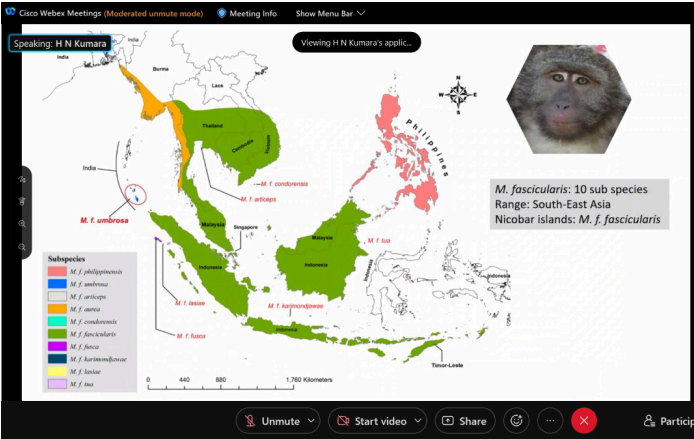
The Nicobar Long-tailed Macaque is diurnal by habit and is an opportunistic omnivore feeding on fruit, leaves, nuts, seed, crabs, oysters, small birds, and their eggs, lizards, and frogs. Communication between the species is through acoustic signals, visual cues, and olfactory signals.

The species population is threatened by habitat loss, hunting, and persecution due to it being considered an agricultural pest. It has been accorded the highest protection in India under the Wild Life Protection Act,1972, and is also protected at international levels as well. There are 15 individuals housed in the Biological Park, Chidiya Tapu, which comes within its distribution range.

## BIOLOGICAL PARK, CHIDIYATAPU

The zoo was established in the year 2009 over an area of 40 hectares. It is part of the Chidiyatapu-Bimblitan reserved forest and is located at the southernmost point of the South Andaman district. The area is dominated by tropical semi-evergreen and moist deciduous type forest. Presently, the zoo houses 6 species of birds, 6 species of mammals, and 4 reptile species. Most of the collection housed is endemic to the Andaman and Nicobar group of Islands.





*“It seems to me that the natural world is the greatest source of excitement; the greatest source of visual beauty; the greatest source of intellectual interest.”*

*~ Sir David Attenborough*

“ இயற்கை உலகம் உற்சாகத்தின் மிகப்பெரிய ஆதாரம்; காட்சி அழகின் மிகப்பெரிய ஆதாரம்; அறிவார்ந்த ஆர்வத்தின் மிகப்பெரிய ஆதாரம் என்று எனக்குத் தோன்றுகிறது. ”

~ சர் டேவிட் அட்டன்பரோ

**Week 40** showcased the Saltwater Crocodile (*Crocodylus porosus*) and the Madras Crocodile Bank Trust, Mamallapuram, Tamil Nadu. The Saltwater Crocodile is one of the largest crocodylians and one of the largest reptiles in the world. It has a relatively large head and ridges, stretching from each eye along the center of the animal's snout. Saltwater Crocodiles have a high tolerance for salinity, being found in brackish water around coastal areas and in rivers. They move between different habitats during the wet and dry seasons. Breeding territories are usually established along tidal rivers, creeks, and freshwater areas. The Madras Crocodile Bank Trust organized webinars with experts who have studied the species in focus eg; 'Conservation issues throughout the range of saltwater crocodile, including human-crocodile conflict' and a talk on the 'Ethnography and cultural relations vis-a-vis the Saltwater Crocodile' in Andaman & Nicobar Islands. In-person talks at the zoo with visitors and school children were also conducted apart from engaging in specific enrichment activities for the salties housed at the zoo.





**WEEK 40**

December 13 to December 19, 2021

# **SALTWATER CROCODILE**

*Crocodylus porosus*

**Madras Crocodile Bank Trust, Tamil Nadu**

© Bernard DUPONT, Wikimedia Commons

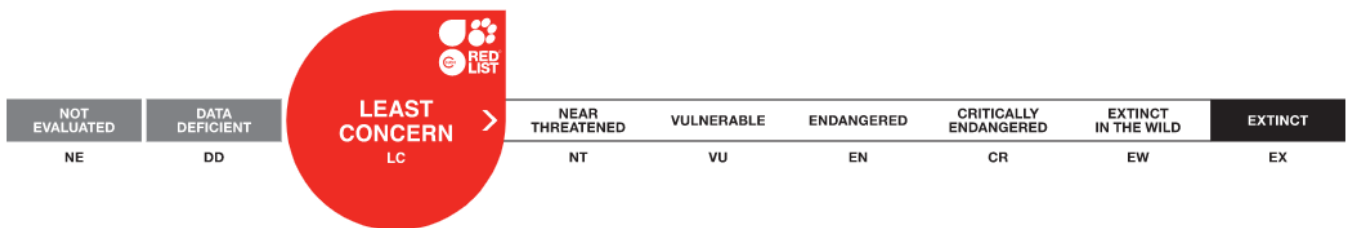
# SPECIES & ZOO IN FOCUS

## SALTWATER CROCODILE

*Crocodylus porosus*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Least Concern**



The Saltwater Crocodile is one of the largest living crocodylian species and the world's largest reptile in terms of mass. It is widely distributed in the world. In India, its distribution is recorded in the northeast coastal region of the mainland and the Andaman Islands. They usually inhabit non-tidal freshwater areas of rivers and inland freshwater lakes, swamps and marshes. They are carnivores and consume a variety of prey with smaller-sized prey making the bulk of their diet. Saltwater crocodiles have a high tolerance for salinity, being found in brackish water around coastal areas and in rivers. It is also present in freshwater rivers and swamps. They move between different habitats during the wet and dry seasons.

Breeding territories are usually established along tidal rivers, creeks, and freshwater areas. Sexual maturity in crocodiles is more closely associated with body size than age. Usually, females attain sexual maturity at lengths of 2.2 to 2.5m and males at 3.2m. Females on average lay 40-60 eggs in mound nests made from vegetation and mud during the annual wet season. The sex of the hatchling is dependent on the temperature of incubation (Temperature-dependent sex determination- TSD). Eggs incubated at temperatures below 30 degrees celsius will be female and above 30 degrees celsius will be male.

The population status is secure owing to its global widespread distribution. However, it has been accorded the highest protection (Schedule I) under the Wildlife (Protection) Act, 1972. There are 96 individuals housed in 13 zoos across India.

## MADRAS CROCODILE BANK TRUST

The Madras Crocodile Bank Trust was established by Rom and Zai Whitaker in 1976. The goal of establishing this centre was to secure breeding populations of the three species of Indian crocodiles: the Mugger (*Crocodylus palustris*), the Saltwater Crocodile (*Crocodylus porosus*), and the Gharial (*Gavialis gangeticus*). The zoo was established to hold a living genetic repository of crocodiles for conservation breeding. However, over the years as the need for reptile conservation grew, other species of reptiles were added to the collection. The zoo houses 15 species of crocodylians apart from turtles, lizards and snakes. Presently, the zoo houses 43 species of reptiles.



Recording... You are screen sharing View Options

### Asian/Oceanic Crocodylian Species

- Saltwater crocodile: 1507 attacks (738 fatal)
- Mugger crocodile: 545 attacks (221 fatal)
- Tomistoma: 31 attacks (10 fatal)
- Australian freshwater crocodile: 17 attacks (no deaths)
- Siamese crocodile: 2 attacks (no deaths)

Bratton Sideeey

Webex interface: Start Video, Security, Participants (17), Chat, Share Screen, Paper/Stop Recording, Reactions, Apps, End



Via webex

### MCBT's history is peppered with milestones such as these

Nikhil

Madras Crocodile Bank Trust  
Centre for Herpetology

### First crocodiles breed at MCBT

Nikhil

Madras Crocodile Bank Trust  
Centre for Herpetology

### Salt and Pepper from the Andaman & Nicobar Islands

Manish Chandi

### A short ethnography from the two archipelagos

Manish Chandi

Participant list: hil Whitaker, Madras Crocodile Ba..., Ruchika Lakshmanan, Shamik Sathe, Ganesh



*“We are all meant to be naturalists, each in his own degree, and it is inexcusable to live in a world so full of the marvels of plant and animal life and to care for none of these things.”*

*~ Charlotte Mason*

“ நாம் அனைவரும் இயற்கை  
ஆர்வலர்களாக இருக்க  
வேண்டும், ஒவ்வொருவரும்  
அவரவர் அளவில்,  
தாவரங்கள் மற்றும்  
விலங்குகளின் அற்புதங்கள்  
நிறைந்த உலகில் வாழ்வது  
மன்னிக்க முடியாதது மற்றும்  
இவை எதிலும் அக்கறை  
காட்டாது. ”

*~ சார்லோட் மேசன்*

**Week 41** The Indian Softshell Turtle (*Nilssonia gangetica*) and the Kurumbapatti Zoological Park, Salem, Tamil Nadu were highlighted in week 41. The Indian Softshell Turtle or Ganges Softshell Turtle is a species of softshell turtle found in South Asia in the Ganges, Indus, and Mahanadi rivers. This was species of primary importance for river pollution abatement as part of the Ganga Action Plan. The aim was to provide an integrated river basin management approach taking into account the different complex interactions between the abiotic and biotic ecosystems. The Kurumbapatti Zoological Park, the only zoo in the western region of Tamil Nadu hosted numerous webinars with subject matter experts on the species in-focus with emphasis on the importance of species and habitat conservation, especially aquatic ecosystems.



# WEEK 41

December 20 to December 26, 2021

## INDIAN SOFTSHELL TURTLE

*Nilssonia gangetica*



**Kurumbapatti Zoological Park, Salem, Tamil Nadu**

© Gaell Mainguy, [www.inaturalist.org](http://www.inaturalist.org)

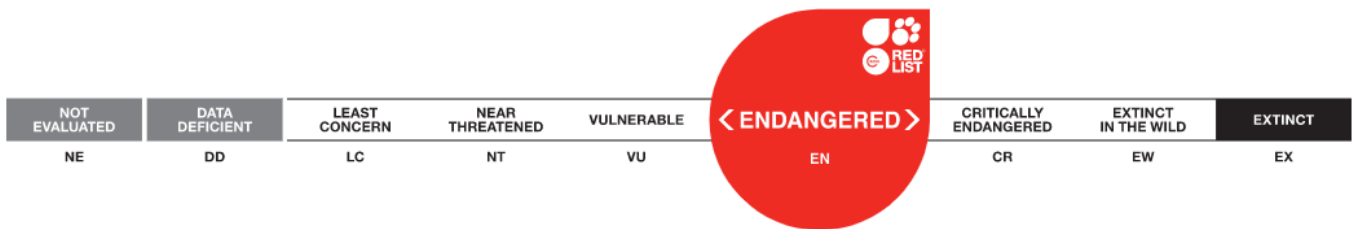
# SPECIES & ZOO IN FOCUS

## INDIAN SOFTSHELL TURTLE

*Nilssonina gangetica*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Endangered**



The Indian Softshell Turtle, also known as the Ganges Softshell Turtle is endemic to South Asia. It is one of the largest freshwater turtles. In India, its distribution is throughout the northern plains in the Indus, Ganga, Narmada, and Mahanadi basins and most of their tributaries. It inhabits deep rivers, streams and large canals, lakes, and ponds with mud and sand bottoms. The turtle is primarily carnivorous feeding on both invertebrates, small vertebrates, and carrion.

It has a prominent tube-like snout and a flattened shell. The carapace is smooth in texture, round to oval in shape, and is usually green in colour with a yellow border. The limbs are green and the plastron is grey to cream in colour. Its head is broad, with several black stripes running from the centre towards the sides. Males can be identified by their longer and thicker tail. Juveniles show a series of warts on carapace which disappears in adults.

Their breeding season is from April to May and their clutch size is usually 15-35 eggs with an incubation period of 217-287 days. Males are territorial during the breeding season.

The species is threatened due to habitat loss and commercial exploitation and has been accorded protection Nationally (Wildlife (Protection) Act, 1972; Schedule I) and Internationally (CITES, Appendix 1). There are 433 individuals housed in 10 zoos across India.

## KURUMBAPATTI ZOOLOGICAL PARK

Kurumbapatti Zoological Park is the only recognized zoo in the western part of Tamil Nadu, popularly known as the "Kongu Region". It is a small category zoo covering an area of 31.73 hectares. It is located amidst a reserve forest in the foothills of Shevaroy i.e. Eastern Ghats with natural streams. The dominant vegetation here consists of mixed dry deciduous forests and scrub providing natural ambiance. Presently, the zoo houses 9 species of birds, 8 species of mammals, and 6 reptile species.





*Nilssonina gangetica* (Cuvier 1825)

- o Commonly called as Ganges Softshell Turtle
- o Also called as Indian Softshell Turtle
- o Distributed in North India, Bangladesh, Pakistan and Southern Nepal
- o Found in rivers of Ganges, Indus and Mahandi
- o Considered sacred in Orissa
- o Listed in part II of Schedule I of Wildlife (protection) Act 1972
- o Categorized as Endangered by IUCN
- o Listed in Appendix I of CITES

75  
India

Conservation to co-existence:  
The people's connect  
#75Weeks75Species75Zoos  
**KURUMBAPATTI ZOOLOGICAL PARK**

**Day 1 - 20.12.2021 / Monday - 11.00 AM to 12.00 PM - Inaugral Session**

Welcome Address: Thiru R.Gowtham, IFS, District Forest Officer, Salem.  
Inaugral Address: Dr. Shekar Kumar Niraj, PCCF & Chief Wildlife Warden, Chennai.

**Day 2 - 21.12.2021 / Tuesday - 11.00 AM to 12.00 PM**

Expert Talk: Dr. S.R.Ganesh, Scientist & Deputy Director, Chennai Snake Park, Chennai.

**Day 3 - 22.12.2021 / Wednesday - 4.00 PM to 5.00 PM**

Talk on Know your species, Know your zoo - Live on youtube - <https://youtu.be/zpNiwVvMbGM>

**Day 4 - 23.12.2021 / Thursday - 11.00 AM to 12.00 PM**

Special address: Thiru A.Periasamy, IFS, Conservator of Forests, Salem.  
Expert Talk: Thiru S.Sharavanan, Honorary Wildlife Warden, Salem.

**Day 5 - 24.12.2021 / Friday - 11.00 AM to 12.00 PM**

Expert Talk: Dr. R.Brawin Kumar, Post Doc. Fellow, IISER, Tirupati.  
Species identification Competition for the visitors of Kurumbapatti Zoological Park - Thiru V.Gokul, Salem Nature Club.

**Day 6 - 25.12.2021 / Saturday - 11.00 AM to 12.00 PM**

Expert Talk : Mr. Nikhil Whittaker, Madras Crocodile Bank Trust, Mahabalipuram.  
Drawing competition for the visitors of Kurumbapatti Zoological Park

**Day 7 - 26.12.2021 / Sunday - 11.00 AM to 12.00 PM**

Closing Ceremony & Distribution of Prizes.  
Vote of Thanks: Thiru T.Kannan, ACF & Assistant Director, Kurumbapatti Zoological Park, Salem.

E-Mail : [kzpslm@gmail.com](mailto:kzpslm@gmail.com)

Contact : +91 94439 63197

Google Meet Link : <https://meet.google.com/ivv-xdgr-cqk> (for all talks except day 3 session)

**Week 41 - Ganges Softshell Turtle**  
20<sup>th</sup> to 26<sup>th</sup> December, 2021



*“The worst sin toward our fellow creatures is not to hate them, but to be indifferent to them: that’s the essence of inhumanity.”*

*~ George Bernard Shaw*

“ আমাদের সহকর্মী প্রাণীদের প্রতি সবচেয়ে খারাপ পাপ তাদের ঘৃণা করা নয়, তবে তাদের প্রতি উদাসীন হওয়া: এটি অমানবিকতার সারাংশ। ”

~ জর্জ বার্নার্ড শ

**Week 42** showcased the Common Water Monitor (*Varanus salvator*) and Zoological Garden, Alipore, Kolkata, West Bengal. The Common Water Monitor is native to south and southeast Asia inhabiting a variety of natural habitats, such as primary forests and mangrove swamps. It is a large semi-aquatic species but is lesser known compared to other species of monitor lizards and the popular Komodo Dragon. The Zoological Garden, Alipore organized several outreach activities to generate awareness. Online talks and competitions to enhance outreach were hosted by the zoo. An informative video on the Common Water Monitor highlighting its association with human habitation was released on the social media pages of the zoo. Also, info-graphic material on the species in focus was shared with the zoo visitors near the animal exhibit and on social media pages.





**WEEK 42**

December 27, 2021 to January 2, 2022

# **COMMON WATER MONITOR**

*Varanus salvator*

**Zoological Garden Alipore, West Bengal**

© Balaji Malliswamy, on Unsplash

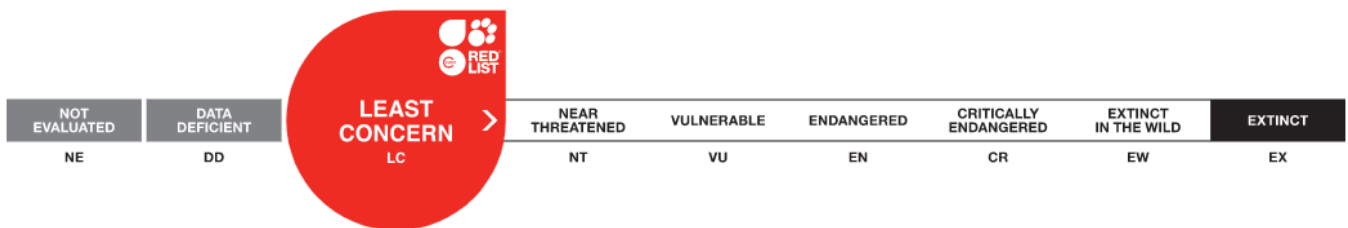
# SPECIES & ZOO IN FOCUS

## COMMON WATER MONITOR

*Varanus salvator*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Least Concern**



The Common Water Monitor (aka Asian Water Monitor) is found throughout southern Asia. In India, it is distributed in the eastern and northeastern regions. They are semi-aquatic and known to cross large stretches of water bodies. They are opportunistic and inhabit a variety of natural habitats, such as primary forests and mangrove swamps.

Sexual dimorphism is present with the males being larger than females. Sexual maturity is size-dependent, males attain it at about 1 meter and females at about 50cm. The breeding season is from April to October. Clutch size is dependent on the size of the female (Larger females produce a larger clutch). The water monitor is carnivorous and feeds on a variety of prey such as birds, small mammals, fish, frogs, snakes, etc.

The species is threatened by indiscriminate hunting for its skin and is accorded the highest protection status under the Wildlife (Protection) Act, 1972. There are 43 individuals housed in 8 zoos across India.

## ZOOLOGICAL GARDEN ALIPORE

Zoological Garden, Alipore was formerly known as Alipore Zoo and is one of the oldest zoos in India. It was established in the year 1875, covering an area of 18.81 ha. The zoo has a large water body within its premises, which attracts migratory birds during winter. The zoo premises also has over a 100 species of trees, mainly Baobab (*Adansonia digitata*), Chatim (*Alstonia scholaris*), Kadam (*Anthrocephalus cadamba*), Arjun (*Terminalia arjuna*), etc. The zoo presently houses 35 species of mammals, 54 species of birds, and 22 species of reptiles.



# WATER MONITOR LIZARD



**Local name :** গোসাপ  
**Class :** Reptilia  
**Order :** Squamata  
**Family :** Varanidae  
**Scientific name :** *Varanus salvator*, (Laurenti, 1768)



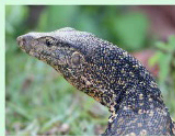
**Conservation Status :**

Scheduled I of Wildlife Protection Act, 1972 and Least Concern according to IUCN Red List 2015. Hunting or attempting to hurt Water Monitor Lizard can invite imprisonment and /or fine.



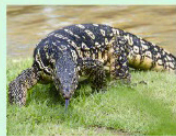
**Distribution :**

It is widely distributed in India, Bangladesh, Sri Lanka, Myanmar and Thailand, Cambodia, Laos, Vietnam.



**Habitat :**

This animal is semiaquatic. The Lizard's preferred habitats include river banks and swamps.



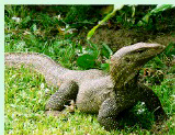
**Identification :**

This Lizard can be identified by its long neck, elongated snout and nostrils located close to the end of the snout.



**Food :**

They feed on birds and their eggs, small mammals (especially rats), fish, lizards, frogs, snakes, juvenile crocodiles and tortoises.



**Behaviour :**

They are excellent swimmers. Defend themselves using their tails, claws and jaws.



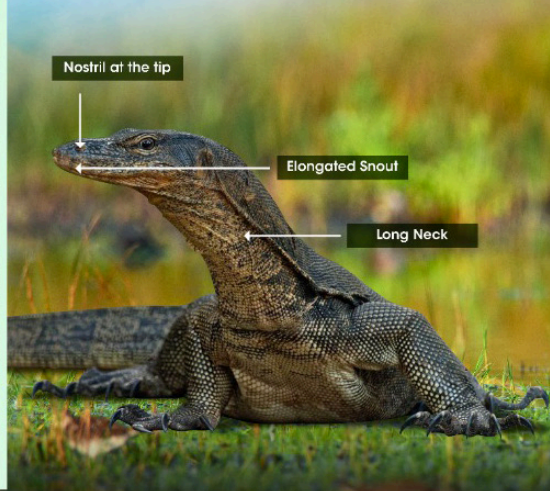
**Breeding :**

The Breeding Season begins in April and lasts until October. The male molts when they are about 1-meter in size and the female molts at about 50 cm size. Female lay 20-50 eggs which take about 5 months to hatch. The eggs are usually deposited along rolling logs or stumps.



**Threats :**

Loss of wetlands, human-wildlife conflicts, hunting, habitat loss and human exploitation.



**75 CONSERVATION TO CO-EXISTENCE: THE PEOPLE CONNECT**  
**India # 75 Weeks 75 Species 75 Zoos**

## WEBINAR ON MANGROVE ADAPTATION OF MONITOR LIZARD

**Speaker :**  
**Dr. Kaushik Deuti,**  
 Scientist C, Herpetology Division, ZSI, Kolkata

**Welcome Address by :**  
**Sri Saurabh Chaudhury, IFS,**  
 Addl. PCCF and Member Secretary, West Bengal Zoo Authority

**DATE : 02ND JANUARY, 2022 | TIME : 10.30 AM TO 11.30 AM**

To join the webinar click on the given link in the description

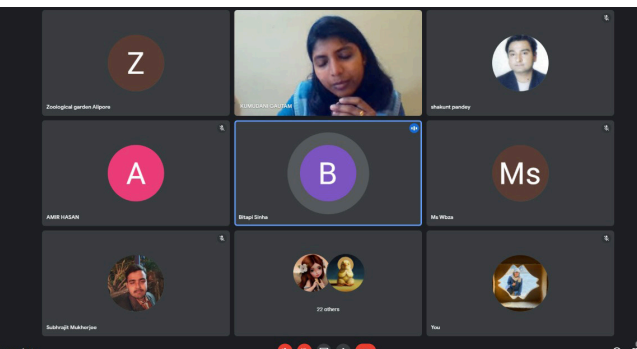
**ZOOLOGICAL GARDEN, ALIPORE**



**Common Water Monitor**  
 Bit more about them?

Commonly seen in human dominated landscapes - agricultural fields...  
 Highly adaptive - happy in fresh and marine water...  
 Varied diet preference - making them explore more areas...  
 Least is known about the populations from India...

Photo: Wikipedia



**Preference for Mangroves**

- Water monitor in mangrove areas are active from sunrise to sunset but spends the morning and afternoon hours swimming and foraging.
- Their association with water could be due to abundant foraging benefits and spatial niche segregation from the sympatric Land Monitor.
- While Water Monitor prefers areas associated with water bodies, the species is replaced in plains areas by the Land Monitor.
- Water monitors living in a habitat with a high nutritious value (as mangrove swamps) need smaller activity areas than the Water Monitors living in less favorable habitats.

Kaushik Deuti

*“There are some four million different kinds of animals and plants in the world. Four million different solutions to the problems of staying alive.”*

*~ David Attenborough*

“ உலகில் சுமார் நான்கு மில்லியன் வெவ்வேறு வகையான விலங்குகள் மற்றும் தாவரங்கள் உள்ளன. உயிருடன் இருப்பதற்கான பிரச்சனைகளுக்கு நான்கு மில்லியன் வெவ்வேறு தீர்வுகள். ”

~ டேவிட் அட்டன்பரோ

**Week 43** highlighted Russell’s Viper (*Daboia russelii*) and the Chennai Snake Park, Guindy, Tamil Nadu. The Russell’s Viper, a venomous snake found in Asia, is deep yellow, tan, or brown in color, with three series of dark brown spots that run the length of its body. Each of these spots is outlined by a black ring, the outer border of which is intensified with a rim of white or yellow. It is one of the “Big 4” medically important snakes in India, and is believed to be responsible for a large proportion of the snake bite incidents as compared to other venomous snakes. The Chennai Snake Park is a specialized reptile zoo and houses only reptile species for research and education. They hosted various competitions for students along with awareness programs on ‘Vipers of India’ for people in villages close the city of Chennai. A guided tour of the zoo and interactive session on the natural history of the species in focus was also organized by the zoo for students from Guru Nanak College and Women’s Christian College. An awareness session on Vipers was conducted for veterinarians of the Tamil Nadu Veterinary and Animal Sciences University.



# WEEK 43

January 3 to January 9, 2022

## RUSSELL'S VIPER

*Daboia russelii*



Chennai Snake Park, Tamil Nadu

© Tontan Thailand, Wikimedia Commons

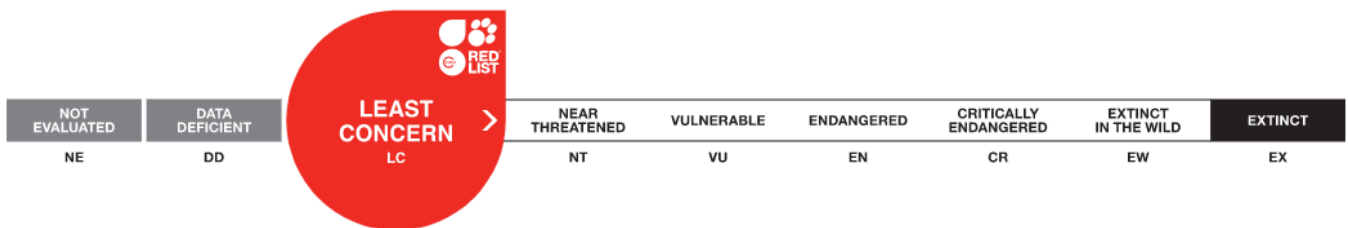
# SPECIES & ZOO IN FOCUS

## RUSSELL'S VIPER

*Daboia russelii*

**Wild Life (Protection) Act, 1972: Schedule II**

**IUCN Red list status: Least Concern**



The Russell's Viper is a venomous snake found in Asia named after Patrick Russel, a Scottish herpetologist who first described the species. The snake is stout and rough in appearance, scales are strongly keeled. The head is triangular and is broader than the neck, the tail is short and thin. They are yellowish-brown in color with a series of three prominent longitudinal large brown or black, oval or round spots. It is widely distributed in the Indian subcontinent inhabiting open grass or scrub areas with a tendency to avoid dense forests. It is often spotted in plains and coastal lowlands.

The Russell's Viper is solitary living and is primarily nocturnal. During colder weather, their activity increases during the day. They attain sexual maturity at around 2-3 years. of age. They mate early in the year and have a gestation period of usually 180 days. They are viviparous; the females give birth to young ones by hatching the eggs internally. The baby snakes moult as soon as they are born. They are carnivores feeding primarily on rodents.

It is threatened by habitat loss and poaching. It is protected by India under the Wildlife (Protection) Act, 1972. There are 106 individuals housed in 31 zoos across India.

## CHENNAI SNAKE PARK

The Chennai Snake Park is also known as the Guindy snake park. It is located over an area of 1 acre in the Guindy National Park campus. It was established by Mr. Romulus Whitaker as Madras Snake Park. Initially, conceptualised as a park exhibiting snakes to the general public, it now houses other species of reptiles as well. Presently, the zoo houses 34 species of reptiles.





*“Wherever there are wild animals in the world, there is always an opportunity for caring, compassion and kindness.”*

*~ Paul Oxtan*

“পৃথিবীতে যেখানেই বন্য প্রাণী আছে,  
সেখানে সর্বদা যত্ন, সহানুভূতি এবং  
দয়ার সুযোগ রয়েছে।”

~ পল অক্সটন

**Week 44** The Clouded Leopard (*Neofelis nebulosa*) and Sepahijala Zoological Park Bishalgarh, Tripura were highlighted in week 44. The Clouded Leopard gets its name due to the large cloud-like spots on its coat. This is a medium-sized wild cat with a yellowish or greyish coat, powerful, stout legs, and a long, strong tail. They are amongst the best climbers and have the longest canines in comparison to other felid species. However, they are neither a true great cat nor a true small cat, because they cannot roar or purr. Sepahijala Zoological Park is the only zoo in the state of Tripura and is the coordinating zoo for the ex-situ conservation breeding of the Clouded Leopard. During the week, the zoo hosted various online and offline events including competitions amongst visitors and zoo staff to generate awareness on this lesser seen species that inhabits the tropical evergreen forests in the northeastern region.





**WEEK 44**

January 10 to January 16, 2022

**CLOUDED LEOPARD**

*Neofelis nebulosa*

**Sepahijala Zoological Park, Tripura**

© Lee Elvin, Wikimedia Commons

# SPECIES & ZOO IN FOCUS

## CLOUDED LEOPARD

*Neofelis nebulosa*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Vulnerable**



The Clouded Leopard is a medium-sized felid with distinct pale-yellow to brown, cloud-shaped patches on its coat. It has an exceptionally long thick tail with black ring markings. The tail can be as long as the body and is used for balancing. They have the longest canines in comparison to other felid species. They are predominantly carnivores with a diverse prey base.

They predominantly inhabit dense, evergreen forests. In India, they occur widely in the north-eastern region, up to an elevation of 3,500 meters, and are solitary and nocturnal by habit. They have adapted to both arboreal and terrestrial life. Studies on the species biology in the wild are limited owing to their nocturnal habit and elusive nature.

Clouded Leopards usually breed from December to March. The gestation period is about 90 days with a litter of one to five cubs. Parental care is provided by the females. The cubs mature at around six months and they disperse after 10 months.

Habitat loss and poaching are the main threats to this species. It has been accorded the highest protection under the Wildlife (Protection) Act, 1972. There are 13 individuals housed in zoos that fall within its distribution range in India.

## SEPAHIJALA ZOOLOGICAL PARK

The name Sepahijala comes from the camp of the then Maharaja of Tripura called 'Sepoy' on the side of the marshy area locally called 'Jala'. The zoo was initially established as a deer park with a botanical garden to protect and showcase the biodiversity of this area. It is the only zoo in the state of Tripura situated within the Sepahijala Wildlife Sanctuary. The zoo spreads over 68 hectares of dry deciduous and semi evergreen forests. The gently undulating terrain of the zoo provides a natural ambiance to the inhabitants. Presently, it houses 15 species of birds, 26 species of mammals, and 9 species of reptiles.





*“Nature is an endless combination and repetition of a very few laws. She hums the old well-known air through innumerable variations.”*

*~ Ralph Waldo Emerson*

“ প্রকৃতি হল একটি অন্তহীন সংমিশ্রণ  
এবং খুব অল্প কিছু নিয়মের পুনরাবৃত্তি  
। তিনি অসংখ্য বৈচিত্রের মধ্য দিয়ে  
পুরানো সুপরিচিত বাতাসকে গুঞ্জন  
করেন। ”

~ রালফ ওয়াল্ডো এমারসন

**Week 45** Assam State Zoo cum Botanical Garden, Guwahati, Assam, and the Pygmy Hog (*Porcula salvania*), the smallest and the rarest wild pig in the world were highlighted during week 45. Assam State Zoo Cum Botanical Garden is the participating zoo for ex-situ conservation breeding of the species. They undertook a massive signature campaign to support species conservation. Visitors were given information material on the species and they took a pledge to play an active role in conservation. Street plays, webinars, and informational videos on the species in focus, and the importance of conserving its habitat were streamed on social media and in the zoo.





**WEEK 45**

January 17 to January 23, 2022

**PYGMY HOG**

*Porcula salvania*

**Assam State Zoo Cum Botanical Garden, Assam**

© Parag Deka

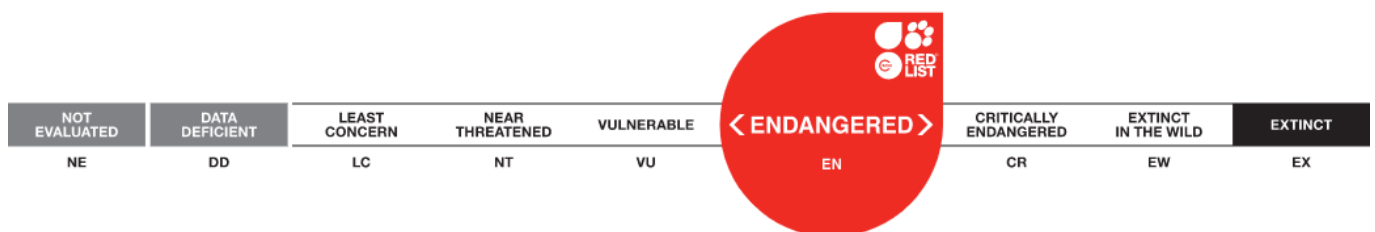
# SPECIES & ZOO IN FOCUS

## PYGMY HOG

*Porcula salvania*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Endangered**



The Pygmy Hog is the smallest wild suid in the world. It has a brown coat with a tapered head and a slight crest of hair on the forehead. It measures about 25 inches in length and 10 inches in height with a short tail. Pygmy Hogs are native to alluvial grasslands in the foothills of the Himalayas. Historically, they were distributed from Uttar Pradesh through Nepal, Bangladesh, northern West Bengal to Assam. The only viable population now is restricted to Assam. They inhabit undisturbed patches of grassland, typically consisting of dense, tall grass intermixed with a wide variety of herbs, shrubs, and saplings.

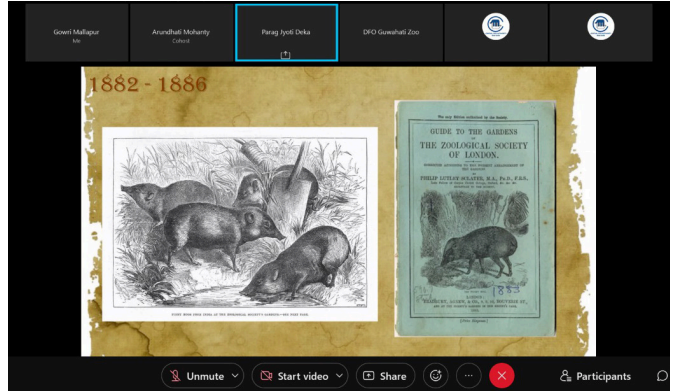
Pygmy Hogs live in small family groups of four to six individuals. Adult males are usually solitary but have been observed to join groups during the rut. They are omnivorous; feeding on a variety of roots, tubers, shoots of plants, and smaller invertebrates.

Habitat loss has resulted in the population being exterminated from most of its natural range in India. An assurance population is currently being managed as part of the Pygmy Hog Conservation Programme (PHCP), a collaborative project of Durrell Wildlife Conservation Trust, IUCN/SSC Wild Pig Specialist Group, Forest Department, Government of Assam, and the Ministry of Environment, Forest and Climate Change, Govt. of India. A pair is housed in the Assam state zoo cum botanical garden that is also identified as a participating zoo for its conservation breeding.

## ASSAM STATE ZOO CUM BOTANICAL GARDEN

The Assam State zoo is situated at the heart of Guwahati city and is one of the largest zoos in the country. It is part of the Hengrabari Reserve Forest and is rich in biodiversity. It was established for recreational purposes to commemorate the 64<sup>th</sup> session of the Indian National Congress in 1957 over an area of 130 hectares. The zoo has since grown to showcase a variety of endemic, native, and non-native species. The botanical garden was established in 1982 over 80 hectares with 345 indigenous and 280 exotic plant species. The vegetation type in the zoo premises is a mixture of tropical moist deciduous, semi-evergreen forests, bamboo forests, and teak plantations. It is one of the primary tourist attractions of Guwahati and attracts over 6 lakh tourists annually. Presently, the zoo houses 50 species of birds, 40 species of mammals, and 22 species of reptiles.





*“Intelligence is based on how efficient a species became at doing the things they need to survive.”*

*~ Charles Darwin*

“ একটি প্রজাতি বেঁচে থাকার জন্য  
প্রয়োজনীয় জিনিসগুলি করতে কতটা  
দক্ষ হয়েছে তার উপর ভিত্তি করে  
বুদ্ধিমত্তা। ”

~ চার্লস ডারউইন

**Week 46** showcased the Northern Pig-tailed Macaque (*Macaca leonina*) and Aizawl Zoo, Lungverh, Mizoram. The Northern Pig-tailed Macaque is a large species belonging to the family Cercopithecidae that lives in groups and inhabits the tropical, semi-evergreen, and evergreen forests of the northeastern states in India. Aizawl Zoo, the only zoo in the state of Mizoram, highlighted the species in focus by organizing capacity-building activities for zoo personnel, broadcasting a virtual tour of the zoo, and conducting webinars in regional languages for members of the community who visited the zoo during the week.



# WEEK 46

January 24 to January 30, 2022

## NORTHERN PIG-TAILED MACAQUE

*Macaca leonina*



**Aizawl Zoo, Mizoram**

© JJ Harrison, Wikimedia Commons

# SPECIES & ZOO IN FOCUS

## NORTHERN PIG–TAILED MACAQUE

*Macaca leonina*

**Wild Life (Protection) Act, 1972: Schedule II**

**IUCN Red list status: Vulnerable**



The Northern Pig-tailed Macaques are large monkeys with olive-grey to golden-colored grizzled fur with a characteristic short, 'pig-like' tail. They are distributed throughout northeastern India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura) and are found to inhabit tropical evergreen and semi-evergreen forest, tropical wet evergreen forest, tropical moist deciduous forest, coastal forest, swamp forest, and montane forest. They are primarily arboreal but may use terrestrial paths as well when crossing clearings, roads, and for reaching agricultural fields for foraging. They are predominantly frugivorous, although they have also been observed to consume other parts of plants and smaller invertebrates.

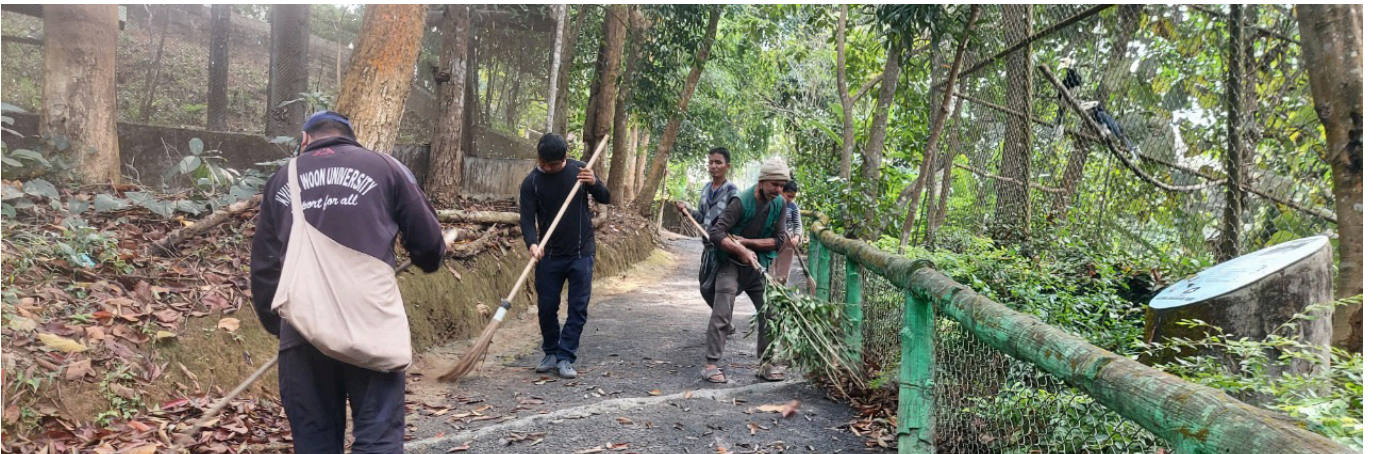
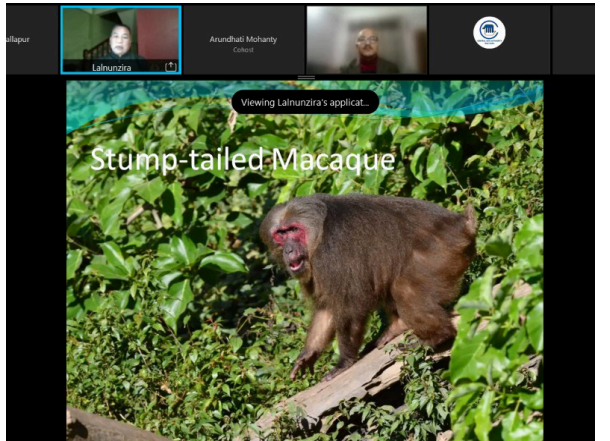
The species is sexually dimorphic with males being larger than females. They are non-seasonal breeders i.e. estrus (a recurring period of sexual receptivity and fertility) in females occurs throughout the year, with a peak from the month of November to January. The gestation period is 171 to 180 days with the birth of one offspring. Northern pig-tailed macaques live in multi-male, multi-female groups. In general, there are many more females per group than males. Group size can vary, averaging around 23 individuals, but can contain as many as 50 individuals.

Habitat loss and poaching are the main threats to the species. It has been accorded protection under the Wild Life (Protection) Act, 1972. There are 48 individuals housed in 8 zoos across India.

## AIZAWL ZOO

The Aizawl zoo is the first and only zoo in the state of Mizoram. It was initially established in the premises of a Children's Park in 1970 before its relocation to the current site. It is currently located over an area of 65 hectares on a hilly landscape with dense native vegetation. The zoo is home to 5 species of birds, 19 species of mammals, and 4 species of reptiles. Apart from this, a good number of free-ranging mammals, birds, and reptiles can be found within the zoo premises as well.





*“When you realize the value of all life, you dwell less on what is past and concentrate more on the preservation of the future.”*

*~ Dian Fossey*

“ যখন আপনি সমস্ত জীবনের মূল্য উপলব্ধি করেন, আপনি অতীতের বিষয়ে কম চিন্তা করেন এবং ভবিষ্যতের সংরক্ষণে আরও মনোনিবেশ করেন। ”

~ ডায়ান ফসি

**Week 47** highlighted the Bengal Slow Loris (*Nycticebus bengalensis*) and Nehru Park cum Mini Zoo, Danakgre, Meghalaya. The Bengal Slow Loris, the largest species of Slow Loris, is a nocturnal primate, native to the Indian subcontinent. They produce a toxin that is secreted from its brachial gland which differs chemically from that of other Slow Loris species. The Nehru Park cum Mini Zoo, located in the Garo hills highlighted this species by organizing various competitions for school children and visitors and collaborating with the local media for a podcast on the species and zoo in focus.



**WEEK 47**

January 31 to February 6, 2022

**BENGAL SLOW LORIS**

*Nycticebus bengalensis*



**Nehru Park cum Mini Zoo, Meghalaya**

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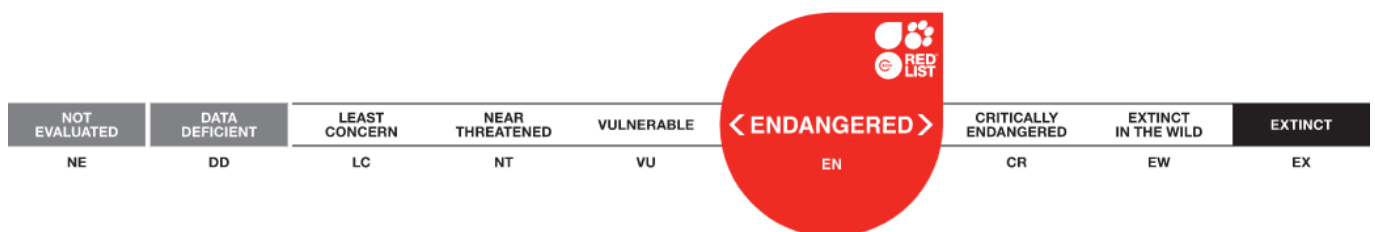
# SPECIES & ZOO IN FOCUS

## SLOW LORIS

*Nycticebus bengalensis*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Endangered**



The Bengal Slow Loris is an arboreal and nocturnal primate that inhabits tropical evergreen rainforest, semi-evergreen forest, and mixed deciduous forest. They are easily identified by their facial features i.e. large forward-facing eyes in proportion to the head. Their pelage (hair) colour varies from ash-grey to buff-yellow with a dark-coloured stripe running from the head down to the center of the back. They are native to Southeastern Asia and in India, are found throughout the North-East region. Their average lifespan is reported to be about 15 years in the wild. They live in small family groups with no dominance hierarchy and maintain territory by scent marking. The diet consists of nectar, plant bark, fruits and small invertebrates.

They mate throughout the year and after a gestation period of 6 to 7 months, the female slow loris gives birth to a single infant. Females provide parental care and continue to feed the infant till it reaches sexual maturity. The mother carries the young on the back for up to 3 months. Bengal slow lorises use a variety of verbal and non-verbal signals to communicate with one another.

Habitat loss and poaching (for the exotic pet trade and traditional medicine) has led to the decline in the species population throughout its range. It has been accorded the highest protection under the Wild Life (Protection) Act 1972. There are 40 individuals housed in 10 zoos across India.

## NEHRU PARK CUM MINI ZOO

The Nehru Park cum Mini Zoo, Danakgre is the only zoo in the Garo Hills region of Meghalaya. It was initially started by the District Administration at Tura Park as a rescue facility for wild animals. Over the years as the number of animals grew and conservation prioritization changed the need for a permanent holding facility was realized and the zoo was shifted to its present location at Danakgre. Presently, the zoo houses 7 species of mammals, 11 species of birds, and 3 species of reptiles.





Meeting Info | Show Menu Bar | 38:21

Govin Mallapur | Nabajit Das | Arundhati Mohanty | di Sengbat Momin

### 9 species of slow loris (Genus *Nycticebus*)

Species	IUCN Status
<i>N. bengalensis</i> (Bengal slow loris or Northern slow loris)	Endangered
<i>N. caucang</i> (Greater slow loris)	Endangered
<i>N. pygmaeus</i> (Pygmy slow loris)	Endangered
<i>N. javanicus</i> (Javan slow loris)	Critically Endangered
<i>N. menagensis</i> (Philippine slow loris)	Vulnerable
<i>N. bancanus</i> (Bangka slow loris)	Critically Endangered
<i>N. borneanus</i> (Bornean slow loris)	Vulnerable
<i>N. kayan</i> (Kayan slow loris)	Vulnerable
<i>N. hilleri</i> (Sumatran slow loris)	Endangered

Unmute | Start video | Share | Participants

Meeting Info | Show Menu Bar

Nabajit Das | Arundhati Mohanty | Cohost

### 23 species of primates in India

Viewing Nabajit Das's applic...

#### Lorises

- Slender loris *Loris lydekkerianus*
- Bengal slow loris *Nycticebus bengalensis*

Unmute | Start video | Share



*“Every species has come into existence coincident both in space and time with a pre-existing closely allied species.”*

*~ Alfred Russel Wallace*

“প্রতিটি প্রজাতি স্থান এবং কাল উভয় ক্ষেত্রেই একটি পূর্ব-বিদ্যমান ঘনিষ্ঠভাবে সংযুক্ত প্রজাতির সাথে মিলিত হয়ে অস্তিত্বে এসেছে।”

~ আলফ্রেড রাসেল ওয়ালেস

**Week 48** The Sangai (*Rucervus eldii eldii*), the state animal of Manipur, and the Manipur Zoological Garden, Imphal, Manipur were the species in focus and the zoo in focus respectively for week 48. The Sangai is an endemic and endangered subspecies of Eld’s deer found only in Manipur, India. Its natural habitat is the floating marshy grasslands (“phumdi”) of the Keibul Lamjao National Park, located in the southern parts of Loktak Lake, the largest freshwater lake in Eastern India. Manipur Zoological Park is the coordinating zoo for the ex-situ conservation breeding program for the species. The zoo hosted varied activities during the week such as guided zoo tours, on-the-spot quiz competitions for visitors, and a rally for Sangai conservation.



# WEEK 48

February 7 to February 13, 2022

## SANGAI

*Rucervus eldii eldii*



**Manipur Zoological Garden, Manipur**

© Dr. Raju Kasambe, Wikimedia Commons

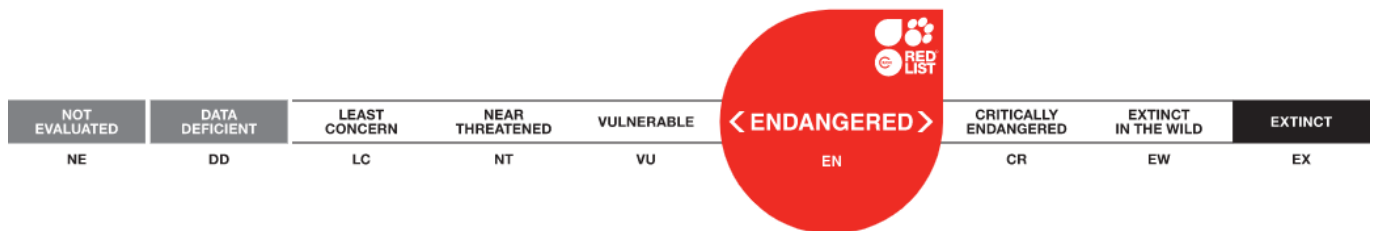
# SPECIES & ZOO IN FOCUS

## SANGAI

*Rucervus eldii eldii*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Endangered**



The Sangai, also known as the Brow-antlered Deer or the Dancing Deer, is a medium-sized deer, with distinctive antlers having a long brow tine. The forward protruding beam appears to come out from the eyebrow embodying its name, 'Brow-antlered Deer'. They have a dark reddish-brown coat that turns paler in colour during summers. It is endemic to India and its population in the wild is restricted to the Keibul Lamjao National Park in the state of Manipur. They feed on a variety of aquatic plants, grasses, herbaceous plants and shoots.

They are largely observed over the floating biomass, locally called 'phumdi' located in the southern parts of the Loktak Lake. The 'phumdi' is a floating mass of entangled vegetation that is formed by the accumulation of organic debris and biomass with soil. Apart from the phumdi habitat, they are found inhabiting wetland areas and open flat grasslands.

The species is sexually dimorphic; females are smaller in size and weigh less than their male counterparts. Family groups consist of females with their fawn with males being solitary. During rut (mating season) multi-male, multi-female groups (on an average six, going up to 70 animals) have been observed. Parental care is provided by the females till the fawn starts walking independently.

The species is threatened by habitat loss and inbreeding depression and has been accorded the highest protection under the Wildlife (Protection) Act, 1972. There are 274 individuals housed in 16 zoos across India.

## MANIPUR ZOOLOGICAL GARDEN

The Manipur Zoological Garden is a medium category zoo that is spread over an area of 8.17 hectares. A conservation breeding centre of 6.007 hectares is also maintained by the zoo at Langol Reserve Forest for the Sangai (State animal of Manipur), Mrs Hume's Pheasant or the Bar-tailed Pheasant (State bird of Manipur) and Kalij Pheasant. It is home to a wide range of endangered and rare species of both plants and animals that are native to the North-Eastern region. Presently, the zoo houses 21 species of birds, 16 species of mammals and 5 reptile species.





Via webex

### ELD'S DEER - THE THREE SISTER

Dr. Chonggi Tubal

Sangai  
Hainan  
Siamensis

IUCN 2016



*“Without birds, where would we have learned that there can be  
song in the heart?”*

*~ Hal Borland*

“পাখি না থাকলে আমরা কোথা থেকে  
জানতাম যে হৃদয়ে গান হতে পারে? ”

~ হাল বোরল্যান্ড

**Week 49** highlighted the Great Hornbill (*Buceros bicornis*) and the Mini Zoo, Roing, Arunachal Pradesh. The Great Hornbill is a large colorful bird found in the Indian subcontinent and Southeast Asia. Their most distinctive feature is the bright yellow and black casque on top of its massive bill. They are a keystone species and have significance in many tribal cultures and rituals. Mini zoo, Roing, the only zoo in the Dibang valley of Arunachal Pradesh, conducted guided tours for school and college students. Talks in the regional language on biodiversity conservation were also organized.



# WEEK 49

February 14 to February 20, 2022

## GREAT HORNBILL

*Buceros bicornis*



**Mini Zoo, Roing, Arunachal Pradesh**

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# SPECIES & ZOO IN FOCUS

## GREAT HORNBILL

*Buceros bicornis*

**Wild Life (Protection) Act, 1972: Schedule I**

**IUCN Red list status: Vulnerable**



The Great Hornbill is a large pied hornbill with a black band across a white tail. Females are comparatively smaller than males and have a smaller casque without the black rim. Females have bluish-white eyes whereas males have red eyes. In India, its distribution is restricted to the Himalayan foothills, montane forests in North-East India, and in the Western Ghats. Predominantly frugivorous, they may occasionally also feed on insects, small reptiles, birds, and small mammals. Hornbills, especially Great Hornbills, are keystone species and play an important role as seed dispersers, and further aid forest regeneration.

It inhabits wet evergreen and mixed deciduous forests and also frequents open deciduous forests for foraging. Hornbills are secondary cavity nesters i.e. they choose existing natural cavities or those made by other species (e.g. Woodpeckers) in large trees. They are mostly sedentary during the breeding season. However, they are wide-ranging during the non-breeding season for foraging. Their breeding season extends from January to April. They are monogamous and territorial. During the nesting period, the female seals herself in the nest cavity till the chicks begin fledging. The male feeds the female and chicks in the nest until they fledge.

The species is threatened by habitat loss and hunting. It is protected at national (Wild Life (Protection) Act, 1972) and international level (CITES). There are 11 individuals housed in 7 zoos across India.

## MINI ZOO, ROING

Mini zoo, Roing was initially established as a rescue centre for short-term and long-term care of animals from the adjoining protected areas. The facility has since been upgraded to the status of a Mini zoo in 2008 with the broader objective of education, recreation, rescue, and rehabilitation of wild animals. Presently, the zoo houses 5 mammal species.






SHANTANU KUVESKAR

UMANG JING THAPA

PAKIR JIDNESH DOSHI



### Hornbills : Gardeners of the forests



- Majority of their diet is fruits!
- Important seed dispersers
- Indicators of health of the forest

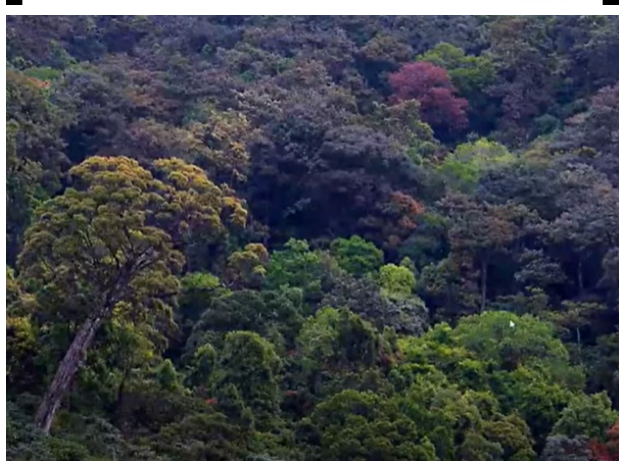
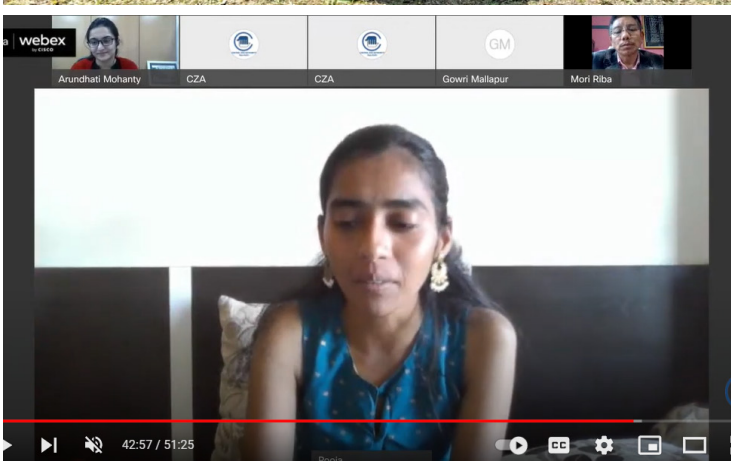


### Habitat restoration

- Identify key sites
- Nursery for hornbill food plants
- Home gardens & farms
- Preserving corridors



Photo: Srini



*“A simple act of kindness and compassion towards a single animal may not mean anything to all creatures, but will mean everything to one.”*

*~ Paul Oxtan*

“একটি প্রাণীর প্রতি দয়া এবং করুণার একটি সাধারণ আচরণ সমস্ত প্রাণীর জন্য কিছু বোঝাতে পারে না, তবে একজনের জন্য সবকিছু বোঝায়।”

~ পল অক্সটন

**Week 50** showcased the Asian Brown Tortoise (*Manouria emys*) and the Lady Hydari Park cum Mini Zoo, Shillong, Meghalaya. The Asian Brown Tortoise is the largest tortoise in mainland Asia. Adults are dark brown or blackish. The carapace of juveniles is yellowish-brown, with dark-brown markings. Lady Hydari Park cum Mini Zoo, Meghalaya organized exposure trips for students, cleanliness drives in the zoo, and adjacent forest areas apart from hosting competitions for school children on themes pertaining to the species in focus and wildlife conservation.



**WEEK 50**

February 21 to February 27, 2022

**ASIAN BROWN TORTOISE**

*Manouria emys*



**Lady Hydari Park cum Mini Zoo, Meghalaya**

© Rushenb, Wikimedia Commons

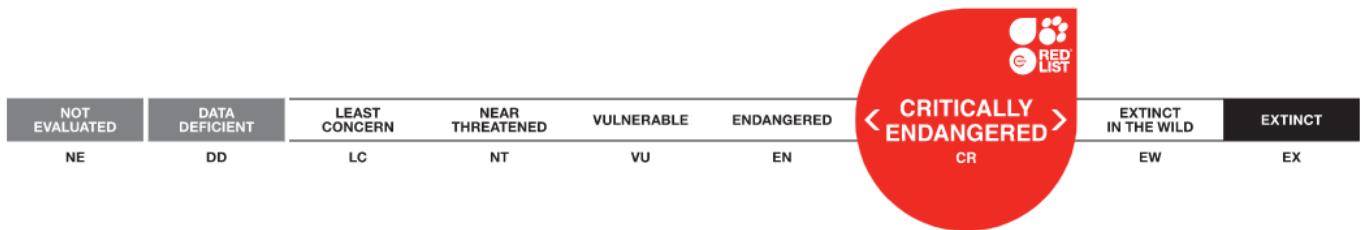
# SPECIES & ZOO IN FOCUS

## ASIAN BROWN TORTOISE

*Manouria emys*

**Wild Life (Protection) Act, 1972: Schedule IV**

**IUCN Red list status: Critically Endangered**



The Asian Brown Tortoise is the largest tortoise found in Asia. The species is native to southern and southeastern Asia ranging from Bangladesh and northeastern India through mid-elevation hilly areas of Myanmar, and western and southern Thailand through Malaysia and Indonesia. The two recognized subspecies are distinguished based on geographic distribution, coloration, plastral scute pattern (ventral side pattern), and size. They feed on bamboo shoots, tubers, small invertebrates, and frogs.

It is found in temperate, moist habitats, evergreen forests, from lowland regions up to altitudes of about 1,000 m. Asian Brown Tortoises prefer humidity and do not wander far from a water source. During the dry season, most individuals become inactive for a period of up to two months and remain buried in leaf litter.

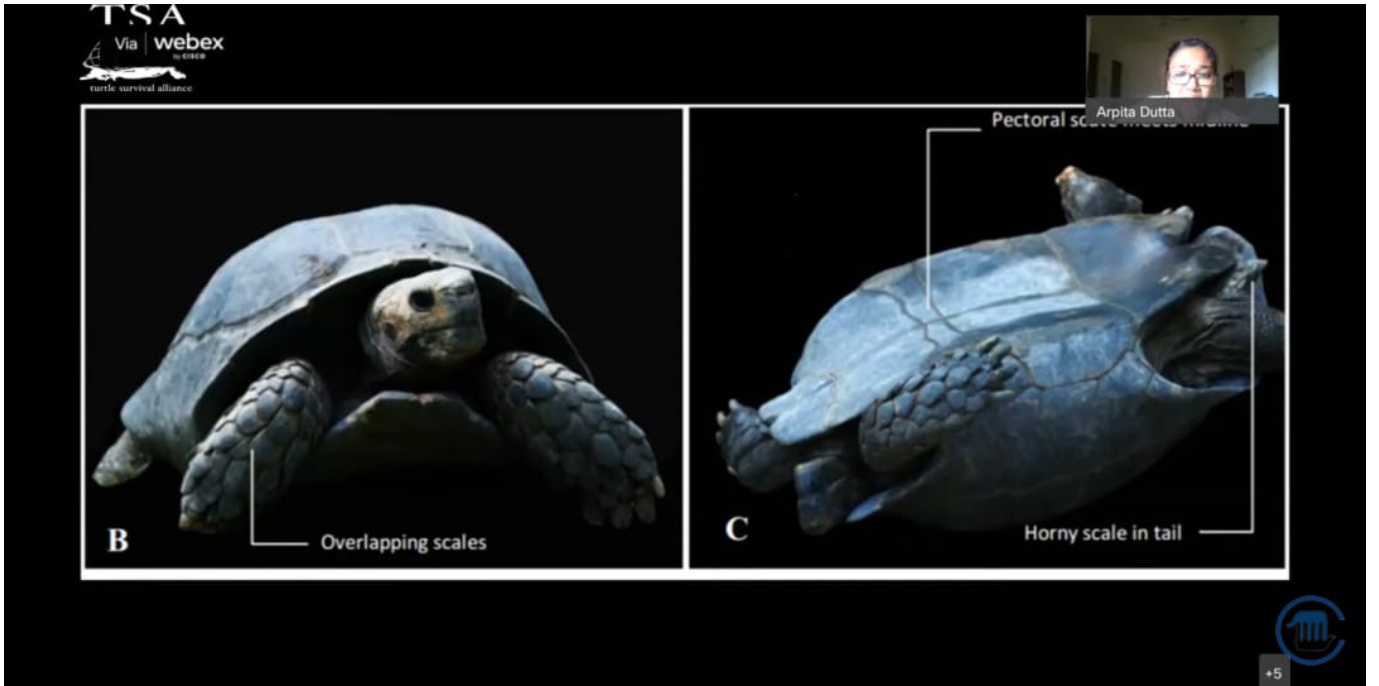
The social behavior of the species is elaborate. During courtship, males head-bob to communicate with prospective mates. There are two types of head bobbing, horizontal and elevated bobbing. Studies on the reproductive biology of the species in captivity report that the female constructs a nest by sweeping leaf litter backward to form a nest mound and the nest territory is actively defended during the initial days. The average clutch size ranges from 20 to 50 eggs with an incubation time of 63-84 days.

Habitat loss and poaching for commercial trade are the predominant threats to the survival of the species. It has been accorded the highest protection under the Wild (Life) Protection Act, 1972. There are 104 individuals are housed in 3 zoos that fall within its distribution range.

## LADY HYDARI PARK CUM MINI ZOO

The Lady Hydari Park was initially known as Lady Reid Pleasure Park. It was created in 1937 as a place for ceremonial activities. After the park was handed over to the Forest Department, it acted as a rehabilitation centre for animals rescued from adjoining forest areas with the broad objective to spread awareness on wildlife. Presently, the zoo houses 15 species of birds, 11 species of mammals, and 1 reptile species.











75  
आज़ादी का  
अमृत महोत्सव

## Central Zoo Authority

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