



Wildlife  
Trust  
of India  
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**IFAW**  
INTERNATIONAL FUND FOR ANIMAL WELFARE  
[www.ifaw.org](http://www.ifaw.org)

# BORN TO BE WILD

Asiatic  
**BLACK BEAR** | Asian  
**ELEPHANT** | Greater One-horned  
**RHINOCEROS** | CLOUDED LEOPARD | Western  
**HOOLOCK GIBBON**

**BORN  
TO BE  
WILD**

Commemorating a decade of Wildlife Rescue and Rehabilitation

Wildlife Trust of India (WTI), is a non-profit organisation, committed to conserve wildlife and its habitat and to work for the welfare of individual wild animals, in partnership with communities and governments.

Its vision is a secure natural heritage of India.

Sharing concern for a number of species including elephants, rhinos, bears and tigers, IFAW and WTI formed a partnership in 2000 to strengthen the cause of wildlife conservation and animal welfare in the Indian sub-continent. IFAW and WTI combine excellence in conservation science with best practices in animal welfare to address wildlife emergencies and promote long-term animal protection.

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# Preface

Ten years ago I remember going to the fringe of Panbari reserve forest in Assam to look at a bald patch of land that formed the eastern fringe of the reserve. Behind me was the national highway and then Kaziranga National Park. Facing me were the low hills of Karbi Anglong. It was during floods that the wild animals of Kaziranga try to get across to the high lands of Karbi Anglong and get hit by vehicles on the highway or poached by villagers in surrounding areas. The idea of the International Fund of Animal Welfare and Wildlife Trust of India was to come together and assist the Assam Forest department in building a rescue and rehabilitation centre. The idea was in people's heads and on paper but the bare patch of land I saw showed little promise. Mr BS Bonal the then Director and DD Boro the range officer gave support and leadership. Dr Anand Ramanathan of my own organization did some spadework. Mr Alok Jain the Commissioner of Assam did the official paperwork to ensure a solid MOU.

At exactly the same time, we saw bears being kept as pets in the neighboring state of Arunachal Pradesh. Due to the awareness spread by WTI as well as the Forest department, particularly Chuku Loma, then Director of Pakke villagers started surrendering bears to the department. The zoo at Itanagar was ill equipped and we decided to build a species specific centre in the state

Ten years on, the two centers stand testament to the partnership of all three organizations; I still can't believe that we made all this happen. The fact that nearly an animal a day has been saved for the whole ten years( 3000 or so in just Assam) is something that is even more satisfying. The protocols that the centres have field tested or created is a fantastic contribution to conservation. And the vets that have gone through these two centers have given hope to the states that their new blood can serve the region for years to come

These photos are visual depictions of the hard work done by the staff and keepers of these centers and the great stories of hope that the animals of the region have because of these centers.

I wish the two centers many more years of service to the wildlife of the region

**Vivek Menon**

Executive Director and CEO, Wildlife Trust of India

Regional Director and Advisor, International Fund for Animal Welfare

**RAKIBUL HUSSAIN**  
**Minister**  
**Panchayat & Rural Development and**  
**Environment & Forestes**  
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### Message

The Centre for Wildlife Rehabilitation and Conservation (CWRC) is playing a very important role in the rescue and rehabilitation of marooned wildlife especially during flood time in Kaziranga. I am very happy to know that this rescue centre run by Wildlife Trust of India, International Fund for Animal Welfare and the Assam Forest Department has become an integral part of the wildlife management system for the state of Assam.

I congratulate the dedicated team of CWRC for their efforts to save endangered and marooned wildlife with utmost care with a humane touch and for being the pioneer in this field in the entire country. Today experts from CWRC are being called to many other states of India to help in the rescue and rehabilitation of wildlife.

My very best wishes to the success of CWRC on its tenth anniversary and I hope CWRC will be a model to be followed by many others.

  
(Rakibul Hussain)

**Suresh Chand, IFS**

Principal Chief Conservator of Forests (Wildlife)  
& Chief Wildlife Warden, Assam



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**Message**

Assam is proud to have two UNESCO World Heritage Sites - Kaziranga and Manas as its natural heritage that support a rich gamut of wildlife with the flagship one-horned rhinoceros of India. However, when the River Brahmaputra floods Kaziranga annually, it endangers the wildlife, at times taking a massive toll on the inhabitants of the park.

An urgent need was felt to set up a system of rescuing animals in distress, which came to fruition a decade ago with the initiative of Wildlife Trust of India and the international Fund for Animal Welfare. Together with the Assam Forest Department and the Animal Welfare Board, vetted by the Central Zoo Authority, a rescue centre was established at Panbari Reserve Forest 10 years ago with the aim of rescuing animals in distress and providing treatment and care to injured and orphaned animals from the vicinity and rehabilitating them back to the wild.

I am delighted that in the 10 years of its inception, the Centre for Wildlife Rehabilitation and Conservation (CWRC) is today a one-of-its kind facility that has established release protocols and has proved to the world that individual animal welfare is a critical tool to the conservation of key species. My very best wishes to the success of CWRC on its 10th anniversary and I hope this works as a model to be emulated.

(Suresh Chand)

## Message

It gives me great pleasure to congratulate the people and organisations that have been instrumental in setting up the unique rescue centres for wildlife in our region. Arunachal Pradesh is home to a large variety of endangered and highly protected species of wildlife, among these being Asiatic Black Bears.

The Centre for Bear Rehabilitation and Conservation that is now ten years old started operations at Pakke by rehabilitating rescued or orphaned bear cubs. I am delighted that in ten years of CBRC and support from CWRC and Mobile Veterinary Service units spread across the northeast, we have managed to put back 30 Asiatic black bears into the wild after successful rehabilitation.

The state Forest Department of Arunachal Pradesh is happy to have partnered WTI and IFAW in this mission and we wish many more milestones to add to the existing good work.

Date: 16th November 2012  
Place: Itanagar

  
**Chuku Loma**  
Project Leader  
CBRC



जहाँ है हरियाली।  
वहाँ है खुशहाली॥



GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT & FORESTS



केन्द्रीय चिड़ियाघर प्राधिकरण  
**Central Zoo Authority**  
(STATUTORY BODY UNDER THE MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

## MESSAGE

It gives me great pleasure to know that the Centre for Wildlife Rehabilitation and Conservation (CWRC) in Borjuri, Kaziranga National Park, Assam and the Centre for Bear Rehabilitation and Conservation (CBRC) in Pakke, Arunachal Pradesh have completed ten years of their existence. The delight is double fold when I consider that CWRC Borjuri, Kaziranga National Park, Assam was conceptualised when I was the Director of the Kaziranga National Park. Both the centres are Recognised as per Recognition of Zoo Rule 2009 under the Wild Life (Protection) Act, 1972 by Central Zoo Authority.

I recall one of the worst floods in Kaziranga in 1998, when three different waves of flood had kept our staff and officers working round-the-clock on rescues and on duty at the National Highway to facilitate safe movement of wild animals to higher grounds of Karbi Anglong. With the immense damage to infrastructure, we had to rebuild roads, patrolling paths, bridges and camps within a short period. The need to establish a rescue Centre at KNP was urgently felt, which I proposed to the government.

The present CWRC located at Borjuri, Kaziranga National Park was born out of this necessity in 2002. Wildlife Trust of India (WTI) and the International Fund for Animal Welfare (IFAW) joined hands with the Forest Department of Assam to attend to the increasing number of wildlife displacements. WTI-IFAW further established CBRC at Pakke in Arunachal Pradesh.

Having seen wildlife management issues being tackled across in India, I can say that no other place in India requires a wildlife rehabilitation centre as much as Assam does. Apart from floods that temporarily displace wildlife during the monsoons, I realize that a variety of man-made reasons account for majority of the wildlife displacements that happen here. As the Member Secretary of the Central Zoo Authority, I have seen the activities of WTI expand to new horizons in quick time, especially through mobile rescue units that now operate in all important areas of Assam and Arunachal. I also learnt that CWRC attracts a regular inflow of volunteers from different parts of the world, who consider this as a lifetime opportunity to interact with species like elephant, rhino, leopard, tiger, hog badger, adjutant storks, slow loris, deer, python and many others. I congratulate WTI-IFAW and both the state forest departments for the successful completion of a decade of service in addressing wildlife displacements in the respective states. I am confident that their partnership will take the discipline of wildlife rehabilitation to a new level in the coming years to come. I wish them all success.

**B.S. Bonal, IFS**  
Member Secretary  
Date: 14.11.2012



## MESSAGE

A decade ago, IFAW partnered WTI to set up wildlife rescue centres for animals in India. Saving a majority of the 3000 animals that were brought here in 10 years, the Centre for Wildlife Rehabilitation and Conservation in Assam has set new milestones in animal welfare today. Many of the species rehabilitated was the first time ever for the country, and first time ever in the world for some of them like the clouded leopard. The Centre for Bear Rehabilitation and Conservation in Arunachal Pradesh has successfully rehabilitated 16 Asiatic black bears back to the wild.

Congratulations to the team that has shown the world that individual animal welfare significantly contributes to conservation of species.

IFAW is happy to move closer towards its vision of a better world for animals and people through CWRC and CBRC and on the 10th anniversary of setting up these Centres, I am delighted to wish the team greater success.

A handwritten signature in black ink, appearing to read 'Azzedine Downes', is positioned above the name and title.

**Azzedine Downes**

Executive Vice President  
for International Operations,  
VP of Programmes

**Vision:**  
A secure natural heritage of India.

**Mission:**  
To conserve wildlife and its habitat and to work for the welfare of individual animals in partnership with communities and governments.

Wildlife Trust of India (WTI) is a non-profit conservation organisation, committed to urgent action that works towards the protection of India's wildlife.

It was formed in November 1998, in response to the rapidly deteriorating condition of the country's wildlife, with only three staff members. The core team today includes scientists, field biologists, conservation managers, veterinarians, lawyers, finance, business management and communication specialists, who operate diverse conservation projects across India. WTI's significant innovative and pioneering contributions in wildlife conservation makes it one of India's key wildlife NGOs.

**WTI's Big Ideas**

**Species recovery**

Recover populations of selected threatened species where WTI can make the most difference, using improved techniques, intensive management, conservation breeding, reintroduction and restocking.

**Rescue and rehabilitation**

Increase welfare of individual displaced animals while enhancing conservation and pioneering science based rehabilitation, conflict mitigation and wildlife health.

**Enforcement and Law**

Reduce wildlife crime by strengthening frontline field staff, practical trade control, championing legal defense using existing laws and by providing alternatives to wildlife products and livelihoods.

**Securing habitats**

Secure critical habitats outside the traditional PA system, especially linkages, wetlands, grasslands,

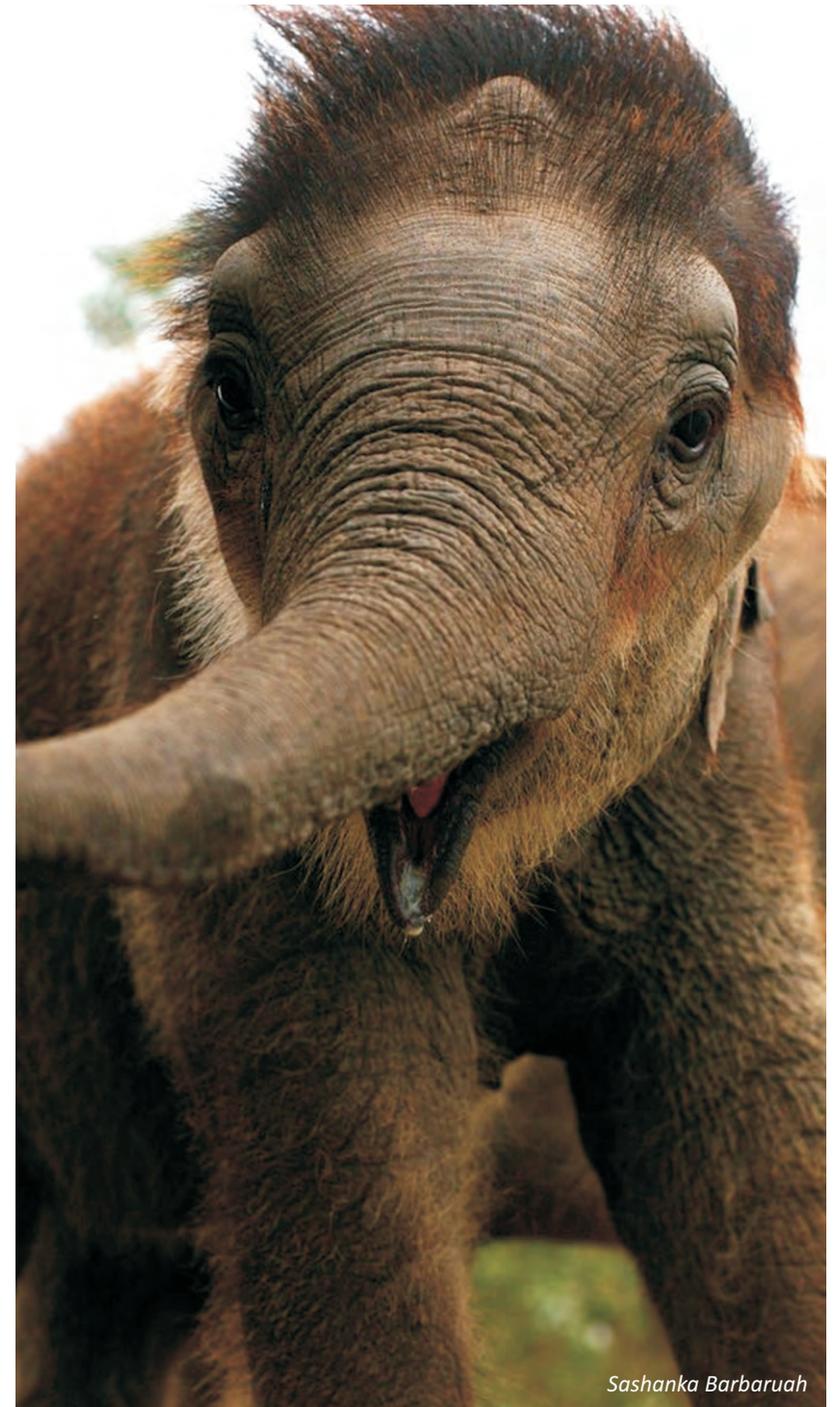
BCPP, important bird areas and sacred groves, thereby increasing the effective protected area of India by 1%.

**Wild Aid:**

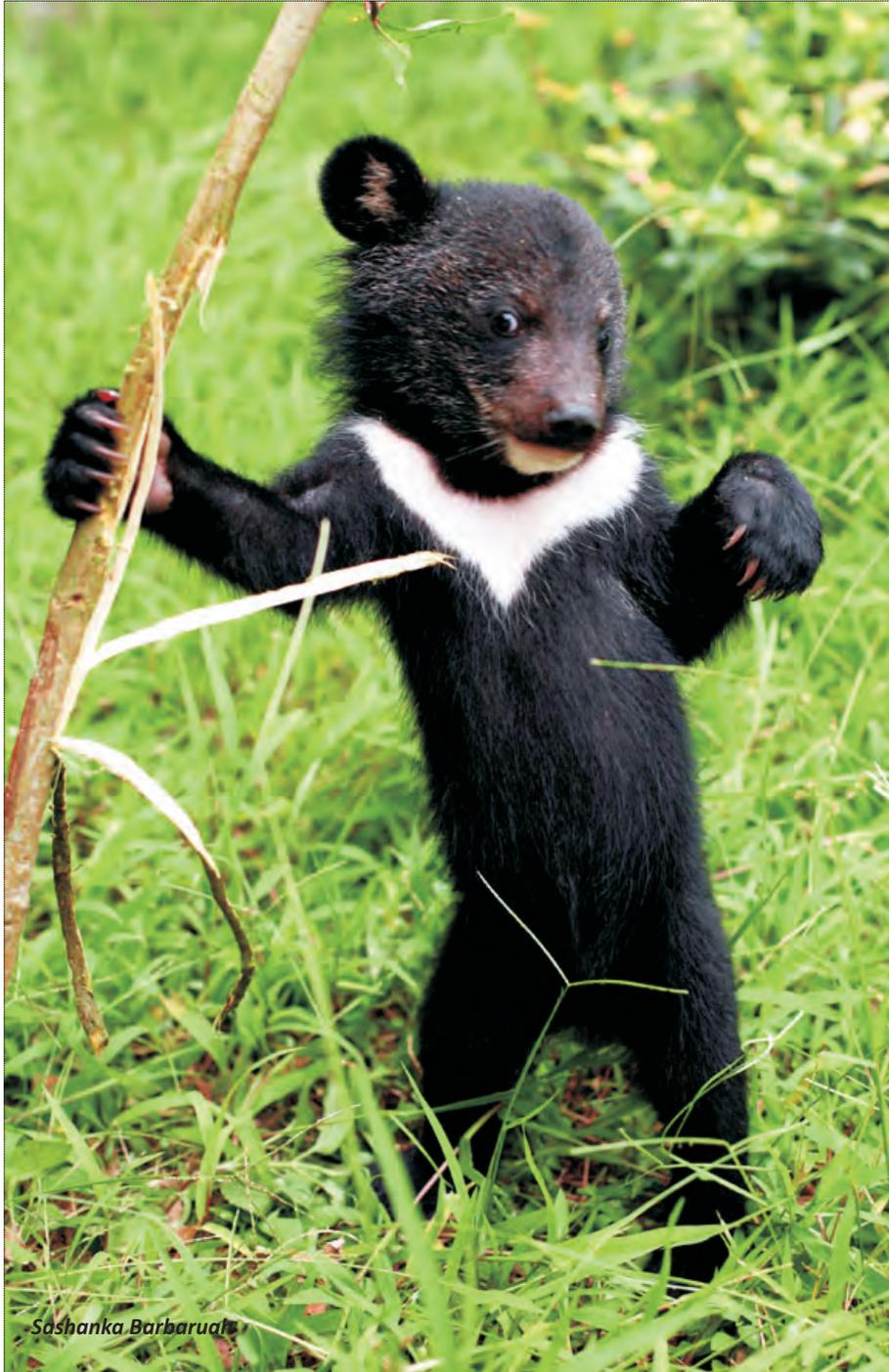
Provide short term focused aid both monetary and technical, to assist in emergencies and in emerging conservation issues, to provide rapid aid to animals in distress, to initiate pilot projects or innovative ideas to help conservation and to focus public attention on conservation emergencies.

In addition to these, the following values have been with us for the past ten years and while we did not discuss it at the Board, I hope you endorse these as well.

WTI is a registered charity in India (under Section 12A of the Income Tax Act, 1961) and is mandated by its Board of Trustees to ensure that 80% of all specified donor funds go to the field.



*Sashanka Barbaruah*



Sashanka Barbarua



Department of Environment and Forests  
Govt. of Assam



If ecology includes the study of individuals, populations, species, communities of species and ecosystems, then nature conservation efforts should target every unit of this ecological and evolutionary process. Wildlife rehabilitation focuses on the individuals of a wildlife population that get displaced due to conflict with humans, calamities like floods and other anthropogenic causes like illegal wildlife trade.

The IUCN guidelines for the placement of confiscated animals, as outlined by the International Union for Conservation of Nature, provides three options for displaced wildlife:

- Return to the Wild,
- Euthanasia and
- Captivity.

International Fund for Animal (IFAW) and Wildlife Trust of India (WTI) believe 'return to the wild' as the appropriate placement option for individuals including orphans displaced from the wild. Making orphans wild again requires some disciplinary skills that IFAW-WTI has been nurturing since it began its wildlife emergency relief and rescue operations in India in the year 2000. The case studies of mammalian rehabilitation showcased in this book demonstrate how orphaned animals can be returned to the wild and thereby contributing to conservation.



Sashanka Barbaruah



Sashanka Barbaruah



Sashanka Barbaruah



Tiju Thomas



Rathin Barman



Rommel Shanmugam

### **IFAW-WTI rescues and rehabilitates wildlife in distress through:**

- Centre for Wildlife Rehabilitation and Conservation (CWRC) in Assam
- Centre for Bear Rehabilitation and Conservation (CBRC) in Arunachal Pradesh
- Five Mobile Veterinary Service (MVS) units in Assam and Arunachal Pradesh
- An Emergency Relief Network of rehabilitators all over the country
- Rapid Action Projects across the country

Join us on this visual trip to our rescue and rehabilitation centres where IFAW-WTI's dedicated veterinarians, biologists and others work round-the-clock to return wildlife where it belongs – the wild.



Sashanka Barbaruah

Conservation Partners



**BODOLAND  
TERRITORIAL  
COUNCIL**





Arindam Pachoni



Aniruddha Mookerjee

## Asiatic Black Bear Rehabilitation

The Asiatic black bear (*Ursus thibetanus*) is one of the four species of bear found in India. It primarily inhabits the Himalayas, ranging from Jammu and Kashmir in the west to Arunachal Pradesh in northeast India.

Listed in Schedule II of the Indian Wildlife (Protection) Act, 1972, Asiatic black bears in the wild are threatened due to habitat loss, hunting for meat and body parts and conflict-related retaliatory killings.



Vivek Menon



Rinku Gohain

*A bear cub being bottlefed at CBRC (top left). A month-old bear cub rescued by the Forest Dept and brought to CBRC for rehabilitation (top right)*

In the northeastern Indian states of Arunachal Pradesh and Assam, hunting has orphaned many a bear cub. These cubs are either sold or kept at home as pets. Many of these cubs reach the Forest Department annually, either confiscated from hunters or surrendered by locals when they become unmanageable.

The Centre for Bear Rehabilitation and Conservation (CBRC) is the first specialized rehabilitation center for Asiatic black bears in India. Established in 2002 on the West Bank at Pakke Wildlife Sanctuary with an aim to rehabilitate displaced Asiatic black bear cubs back into the wild, CBRC provides shelter, food and veterinary care to orphaned bear cubs and rehabilitating them back to the wild.

A field biologist, a veterinarian and trained animal keepers hand raise the cubs at CBRC. Feeding frequency and consistency are strictly maintained according to the age of the cub. The feeding frequency for newborn cubs can be as often as every two hours, gradually reducing to once a day at two to five months of age, supplemented by semi-solids until they are completely weaned at six months of age.

By the time they are five months old, the cubs start having fruits and cereals as well. The next stage is relocation to the forest rehabilitation site for 'assisted release'. These rehabilitation sites are selected after extensive scientific deliberations to evaluate suitability for the cubs' release. Factors such as topography, vegetation type, food availability and human disturbance are taken into account during site selection.



Sashanka Barbaruah

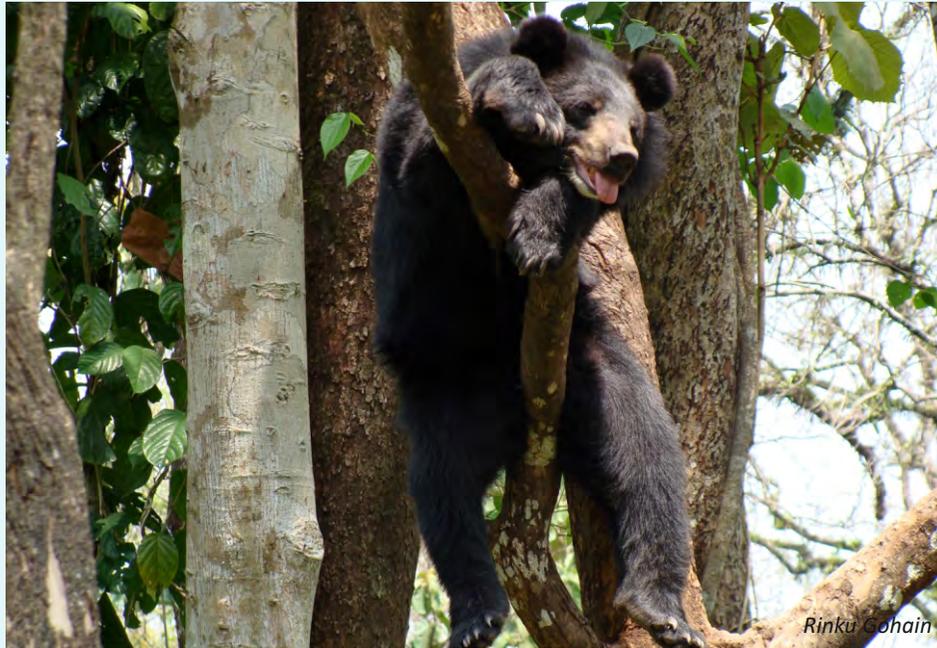
A prolonged period of acclimatisation now occurs prior to the final release. The cubs are taken daily for walks in the forest by the animal keeper who, as a foster parent, is responsible for protecting the cubs during this period. These walks provide the cubs with an opportunity to familiarise themselves with their natural habitat. Here, the cubs' instincts start to come to the fore and they learn to identify their natural food, and hone other skills necessary for independent survival in the wild.

At night, the cubs remain at the camp site where they are provided a combination of natural food collected from the forest and concentrate feed to supplement their dietary requirements.

*The rehabilitation team has to traverse difficult terrain while taking the cubs to the selected site for assisted release (left). The keeper (below) is holding out a small freshwater crab to the bear cub. These crabs are part of the bears' natural diet in the wild.*



Anjan Sangma



As the cubs mature, they become increasingly reluctant to follow the keeper back to the camp site from their walks. When they are about 16 months of age, the cubs are radio-collared and are not forced to return to their enclosure.

Eventually, the cubs are left alone to fend for themselves while being remotely monitored. This continues for six to ten months, by which time the radio collars automatically drop off and the cubs' ability to survive in the wild is established.

*Clockwise from bottom left: Social interaction between cubs is important to behaviourally enrich the cubs, so also activities like tree climbing for foraging and resting. All radio-collars have a drop-off device to prevent choking of growing cubs.*



Jahan Ahmed



Jahan Ahmed

Since the adoption of this assisted release protocol of *in-situ* acclimatization in 2004, the CBRC has released 25 Asiatic black bears with 85% post-release survival. Post-release monitoring has been a challenge to the rehabilitation team as the number of released bears keeps increasing.

Currently, the rehabilitation of seven bear cubs is in progress at the Mehao Wildlife Sanctuary in Arunachal Pradesh and the Chirang Reserve Forest in Assam.

*A successfully rehabilitated black bear (left) and its den (above) in the wild in Pakke Tiger Reserve. These images were taken eight months after radiocollaring.*



*Kabamari Mainkar*



## Asian Elephant Rehabilitation

The Asian Elephant (*Elephas maximus*) is the only living species of the genus *Elephas* of which there are approximately 35,000-45,000 in the wild and an additional 10,000 in captivity in Asia.

Poached for their ivory until the ban was enforced, elephant populations are today threatened by poaching and habitat loss, due to degradation and fragmentation leading to an increase in conflict with humans. This often results in severe consequences for both man and animal.



Phulmoni Gogoi



Sashanka Barbaruah



Sashanka Barbaruah

Trapped in a rocky ravine deep in the forest or in a drainage canal in a tea estate, or left behind because little legs could not keep up with its fleeing herd...the outcome is always the same. A displaced elephant calf, should reunion attempts fail.

A team comprising Forest Dept and IFAW-WTI staff rescue such calves and bring them to CWRC. Here, a human foster parent supported by a team of wildlife vets and biologists hand raise such calves till they are 3-4 years old.

*Elephant calves may be rescued under various circumstances including being trapped in mud pits (top left) or from drainage ditches in tea gardens (top right). Heavy machinery has to be used sometimes to facilitate some rescues.*

*Vets at CWRC x-ray a 5-month-old calf, Dhara, victim of the 2012 Kaziranga floods (bottom left). Separated from her herd, Dhara was hit by a speeding vehicle when wandering alone on the State Highway that runs along a stretch of the Kaziranga National Park.*



Sashanka Barbaruah

Elephant calves suckle for three years and more in the wild. At CWRC, they are bottle-fed with a suitable milk replacer and nutritional supplements. The first two to three months are spent at the nursery, but subsequent feedings happen in groups often with grown up calves in the forest.

The calves are taken for daily walks into the surrounding forests to get them acquainted with the forest and prepare them for an independent life in the wild.

Most of their waking hours comprise playtime when they bond with their ilk that will later keep them in a herd.

*Feeding time at CWRC (top). The calves explore their outdoor nursery at CWRC (right).*



Sashanka Barbaruah



Bhaskar Choudhury



Sheren Shrestha

The next phase, *in situ* acclimatisation, begins when the calves are 4-5 years old. Since 2007, thirteen calves have been transferred from CWRC to Manas National Park for an assisted release programme, where they are radio-collared to facilitate monitoring. Their daily walks continue here, in areas where wild elephant herds have been reported. This is to encourage contact with a herd.

Calves on their walk around CWRC (left). Calves are transported to Manas National Park for the next stage of rehabilitation (right upper and lower).



The calves, when released together will form a herd of their own, but at times, a wild herd will accept a solitary rehabilitated calf, as it happened in 2009 with one calf and in 2012 with another.

At times, such associations have been found to be transient as evidenced by their subsequent solitary sightings.

*Radio-collared calves explore their habitat in Manas National Park (Above). Soni (lower left in pic) sighted with a wild herd in February 2012 (Left- screen shot from a video).*



*Rupa Gandhi*



## Greater One-Horned Rhinoceros Rehabilitation

About three quarters of the world's population of greater one-horned rhinoceros (*Rhinoceros unicornis*) is distributed in India and Nepal. Kaziranga National Park in the northeast Indian state of Assam is home to more than 1800 individuals. Chitwan National Park in Nepal has the second-largest population of about 400 individuals, which is less than one-fourth of the Kaziranga population.

One of the consequence of habitat loss and hunting for the rhino horns is the fragmentation of rhino populations into few isolated pockets along its historical distribution range. In Assam, they are largely confined to five Protected Areas.



Arindam Pachoni

Kaziranga National Park falls within the Brahmaputra River flood plains and gets inundated annually during the monsoon. The floods sometimes take heavy toll on all the wildlife in the park, including rhinos. This is also the time when poachers get easier access to rhinos straying out of the park looking for higher grounds for temporary refuge. Flooding, injuries due to unsuccessful predation and poaching of mother rhinos are the major reasons for the displacement of rhino calves in Kaziranga.

Since its inception in 2002, CWRC has been rescuing displaced rhino calves during floods and young orphan rhinos left behind by poachers. The rehabilitated rhinos from CWRC are released back to the wild in Manas National Park in an effort to restock Manas after its entire rhino population was wiped out over a decade ago. CWRC has managed to successfully release four rhinos to Manas with five more currently undergoing rehabilitation.

*A calf found with its dead mother, was rescued and brought to CWRC (top); another one separated from its mother during the annual floods follows a village boy through a flooded field (right).*



Phulmoni Gogoi

The rhino calves are bottle fed formula milk every two hours until they are around two months old. Around a month later, they are given bits of grass to nibble, and eventually multigrain supplements. Initially housed in the indoor nursery for stabilisation for varying periods depending on age, the rhino calves are later transferred to one acre outdoor paddocks within the Centre.

Unlike elephant calves that suckle for about three years in captivity, rhino calves get weaned off milk by about 18 months of age. They also start nibbling blades of grass much earlier than elephant calves.

*Orphaned rhino calves are brought to CWRC by the Forest Dept and IFAW-WTI staff (below). A very young calf being bottlefed in CWRC (right).*





Luna Cid



Panjit Basumatary

While at CWRC, the calf undergoes treatment for any injuries and is carefully nursed back to health by the resident vets and keepers. Once weaned, the calves are ready for relocation to the release site. Once the rhino calves are screened for diseases and behavioural disadvantages, they are relocated to the release site in Manas in crates, usually mildly sedated to prevent panic. A spacious *boma* (a temporary enclosure) sprawling across 33 acres has been created at the Bansbari Range where the rhinos are confined till they attain sexual maturity.

*Clockwise from top left: A rescued rhino calf being treated for injuries. The resident vet with a newly-rescued rhino calf. The keeper with his charge at CWRC.*



Kadambari Majinkar



Idris Ahmed



Idris Ahmed

The *boma* ensures protection from predators to the calves, while allowing them to acclimatise to the local environment. The rhinos in the *boma* have no interactions with humans except during periodical medical assessments.

After about two or three years of acclimatisation, the rhinos are let out and are remotely monitored round-the-clock with the help of radio-transmitters. Rhino reintroduction to Manas is part of a larger IFAW-WTI initiative called 'Bringing Back Manas' which aims to restore Manas National Park to its former glory.

As of May 2012, IFAW-WTI and the Assam Forest Department have successfully released three rhinos in Manas, and two more are in the *boma* for *in-situ* acclimatisation. Seven more rhino calves are being nursed at CWRC and they will all be eventually moved to a suitable release site in future.

*Clockwise from above: Crane loading crate housing rhino into truck. Rhino stepping out of truck into boma in Manas National Park. Rhino exploring the boma in Bansbari range immediately after release.*



Idris Ahmed



*Shibani Chaudhury*



Sandesh Kadur

## Clouded Leopard Rehabilitation

One of the rarest of the wild cats, the clouded leopard (*Neofelis nebulosa*) is found in the semi-evergreen and evergreen forests of northeast India. Classified as vulnerable by IUCN, there are only about 10,000 adult individuals remaining in the wild the world over. The Indian Wildlife (Protection) Act, 1972 lists clouded leopards in Schedule I, according them the highest level of protection available under the law.

There is no record of orphaned clouded leopards being rehabilitated to the wild in any of its range countries in southeast Asia.



Aniruddha Mookerjee



Aniruddha Mookerjee

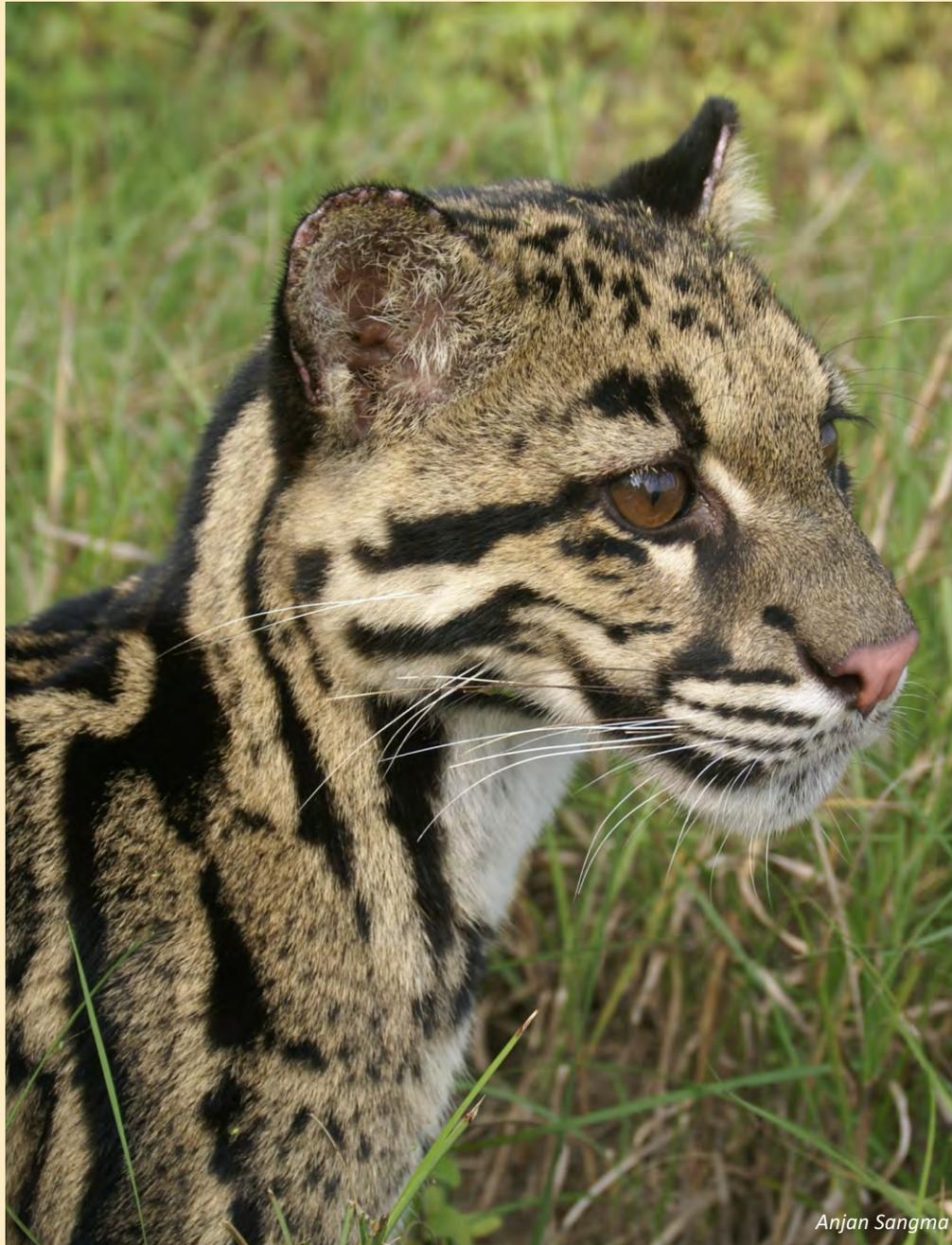


Panjit Basumatary

Clouded leopard cubs are rehabilitated when attempts to reunite them with their mother fail. Reunion attempts are made when the place from they were picked up is known to the rehabilitators.

At the IFAW-WTI-BTC transit home in Kokrajhar, Assam, the cubs are hand raised by the team for six months until they are completely weaned, and on solid food along with additional nutritional supplements. Being arboreal in nature, the cubs spend ample time outdoors, where they are encouraged to climb trees and explore under the watchful eyes of their keeper.

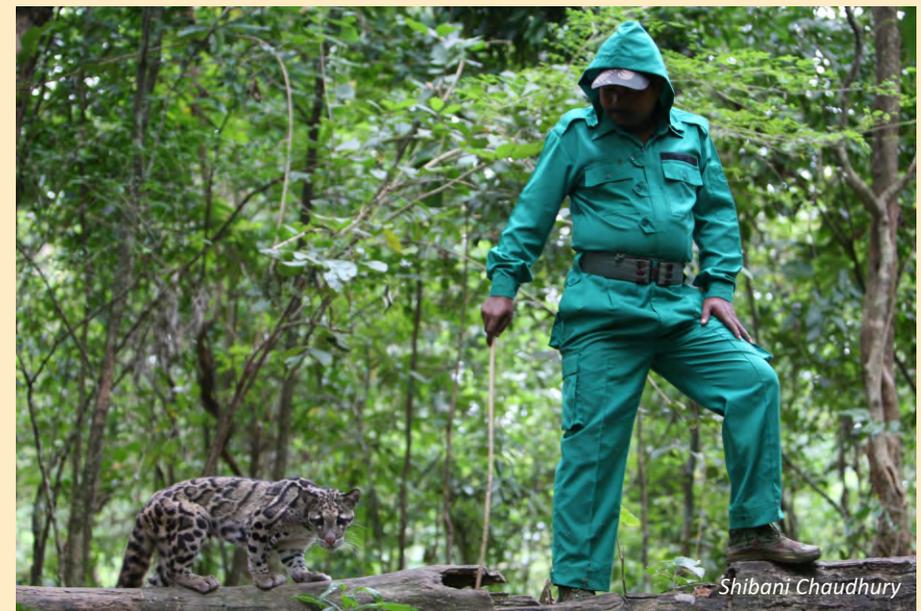
*(Clockwise from bottom left) Clouded leopard cubs at the transit home in Kokrajhar. Bottle feeding at the Centre. The cubs encouraged to climb trees keeping in mind their arboreal nature.*



Anjan Sangma

The next stage of the assisted 'soft release protocol' has the clouded leopard cubs being transported a patch of forest in Greater Manas that was chosen as the ideal home for the two growing cubs. The area is chosen after evaluating several habitat suitability parameters like prey availability and level of human disturbance. Following screening for infectious diseases, a prolonged period of on site acclimatisation begins during which their keeper takes them on daily walks to help them get familiar with their territory and also hone their predatory skills. The cubs gradually realise their inherent wild characteristics and learn skills necessary to survive independently.

*At Manas National Park, the keeper takes the cubs for walks in the forest and encourages them to explore the habitat while he keeps watch over them (bottom).*



Shibani Chaudhury

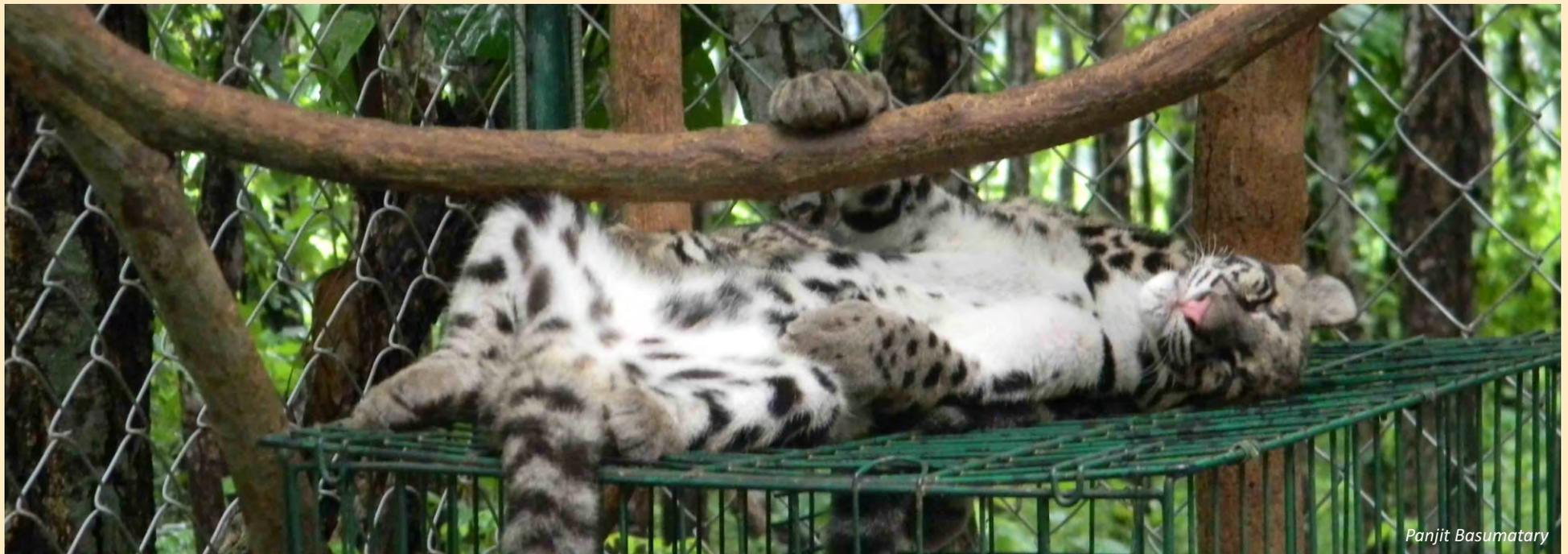
Being nocturnal animals, night acclimatisation of the cubs is crucial to a successful rehabilitation. In contrast to daytime acclimatisation, the cubs are now taken for walks in the forest at night, accompanied by a keeper. Soon it is seen that the cubs tend to snooze in the afternoons while remaining alert and active all night.

At the release site, the cubs gradually begin spending more time in the forest and to increase dependence on natural diet, the quantity of supplementary food is reduced. The cubs now spend about 18 hours per day in the wild. As the cubs mature, their dependence on the keeper decreases and they do not appear very keen to follow him anymore.

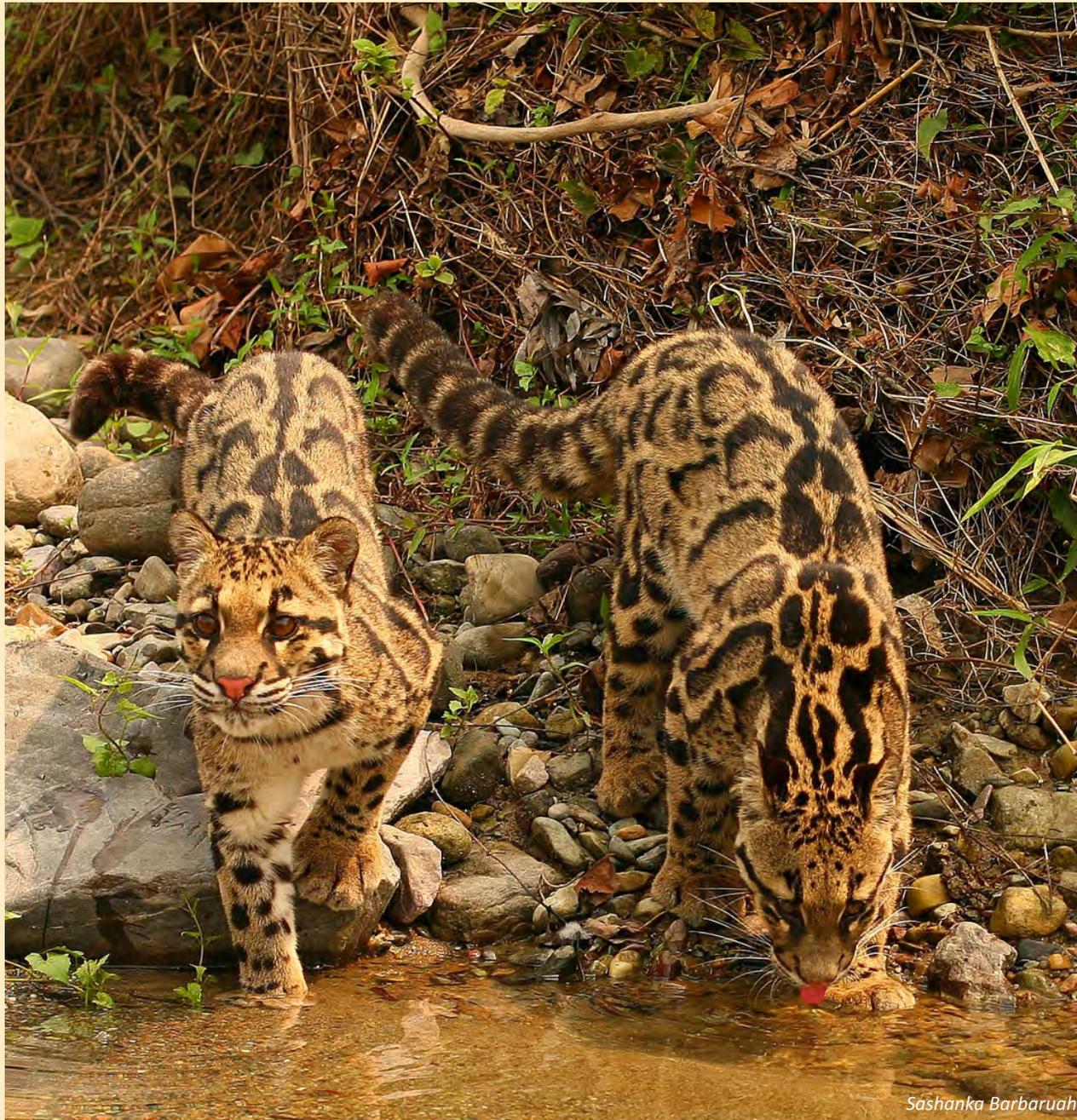
*The cubs are taken for walks at night as part of night acclimatisation (right). After a few weeks of night acclimatisation, the cubs are active most of the night and are asleep for a large part of the day (below).*



Panjit Basumatary



Panjit Basumatary



*Sashanka Barbaruah*

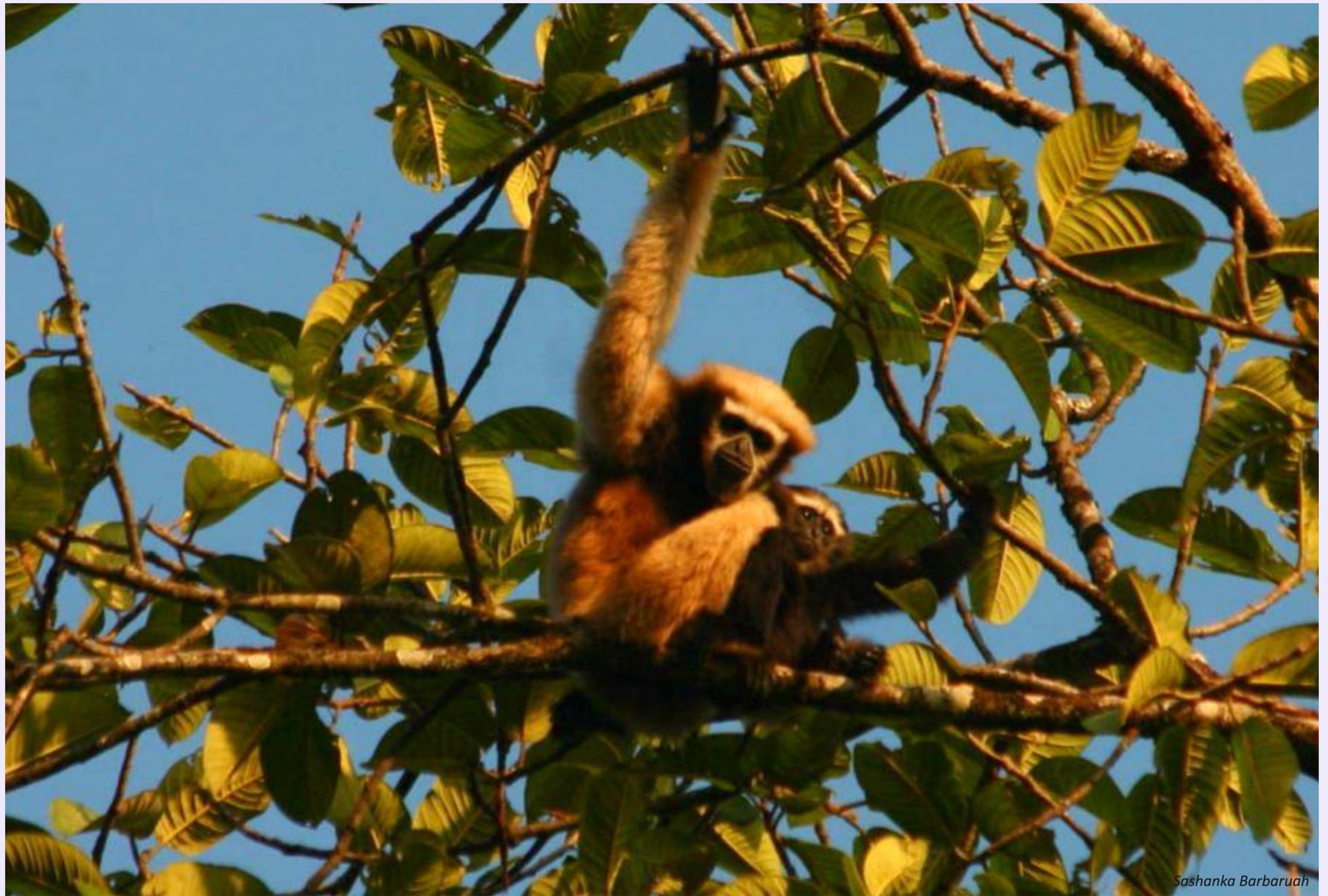
The wildlife biologist deputed to observe, record and analyse the behavior of the cubs looks for hair in their droppings, a clear indication of successful predation.

The cubs rapidly gain their natural instincts by climbing trees, attempting predation on prey such as barking deer, hoary-bellied squirrel, red jungle fowl, and even on golden langurs, among others.

By 12-13 months of age, the cubs have undergone a total of eight months of acclimatisation in the wild. Supplementary food is kept on trees as they are no longer cage dependant. For the last two months of that period, the cubs stay in the wild 24x7.

Once it is observed that the cubs are free ranging and no longer dependent on the enclosure, it is thought prudent to radio-collar them before the final withdrawal of caretakers' assistance. In 2010, the pair of clouded leopard cubs, Runa and Khata, were the first of their kind to make it safely back to the wild. The second pair of orphaned cubs, Koina and Moina have been released in June 2012.

*Koina and Moina at Manas National Park prior to radio-collaring (left).*



*Sashanka Barbaruah*

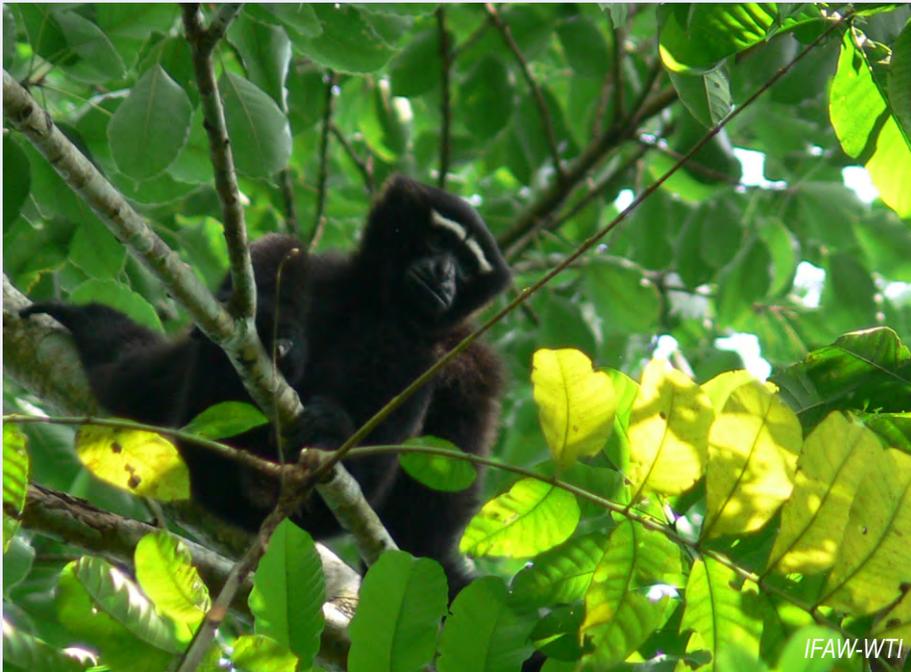


WTI-IFAW

## Western Hoolock Gibbon Rehabilitation

The Hoolock gibbon is the only ape found in India with their distribution restricted to the country's northeast region and is protected under Schedule I of the Indian Wild Life (Protection) Act, 1972. Two species have been recorded in the country – eastern Hoolock gibbon (*Hoolock leuconedys*) and western Hoolock gibbon (*Hoolock hoolock*).

Gibbon numbers have sharply declined in the past 30-40 years. Assam, in the 1970s, had almost 80,000 hoolock gibbons, but today, their numbers have dropped to less than 5000. Gibbons lost most of their prime habitat to encroachment by humans, forest clearance for tea plantations and the practice of *jhuming* (slash-and-burn cultivation).



Completely arboreal in nature, hoolock gibbons have little to do with the forest floor. They spend their entire lives in canopies, foraging for food, bonding with each other, finding a mate, establishing a family unit and raising their young. The forests of northeast India resound with their calls as these “singing apes” swing through canopies from tree to tree.

As more and more forest land is cleared to make way for agriculture even today, adult gibbons are forced to descend to the ground in search of food and sometimes get killed by village dogs. Some are trapped by poachers for use in the pet trade or for traditional medicine. Gibbons, orphaned under various circumstances, are rescued by the Forest Department and brought to the IFAW-WTI-run CWRC.

*A hoolock gibbon in the canopy (left). Gibbon habitat severely fragmented with hardly any standing trees for such exclusive canopy dwellers (bottom).*



Western hoolock gibbons (*Hoolock hoolock*) are social animals and have a strong family bond. The vets and keeper gives the baby all the warmth and comfort they need to ease it into life at CWRC. Initially, the baby is raised only on milk for about a year, after which the weaning process begins with gradual introduction to leaves, fruit, eggs and small insects. The weaning process is complete by the time the baby is about two years old.

Initially, the baby is confined to the indoor nursery. Once it is stabilised, the process of transitioning it to the bigger outdoor enclosure begins. The gibbon outdoor enclosure is designed taking into consideration the behavioural needs of arboreal species like gibbons. Plants and rope swings are placed inside the enclosure to encourage the gibbon to brachiate (swing from branch to branch) and practice balancing. Once the baby is about 5 years old, the second stage of the soft release protocol begins.

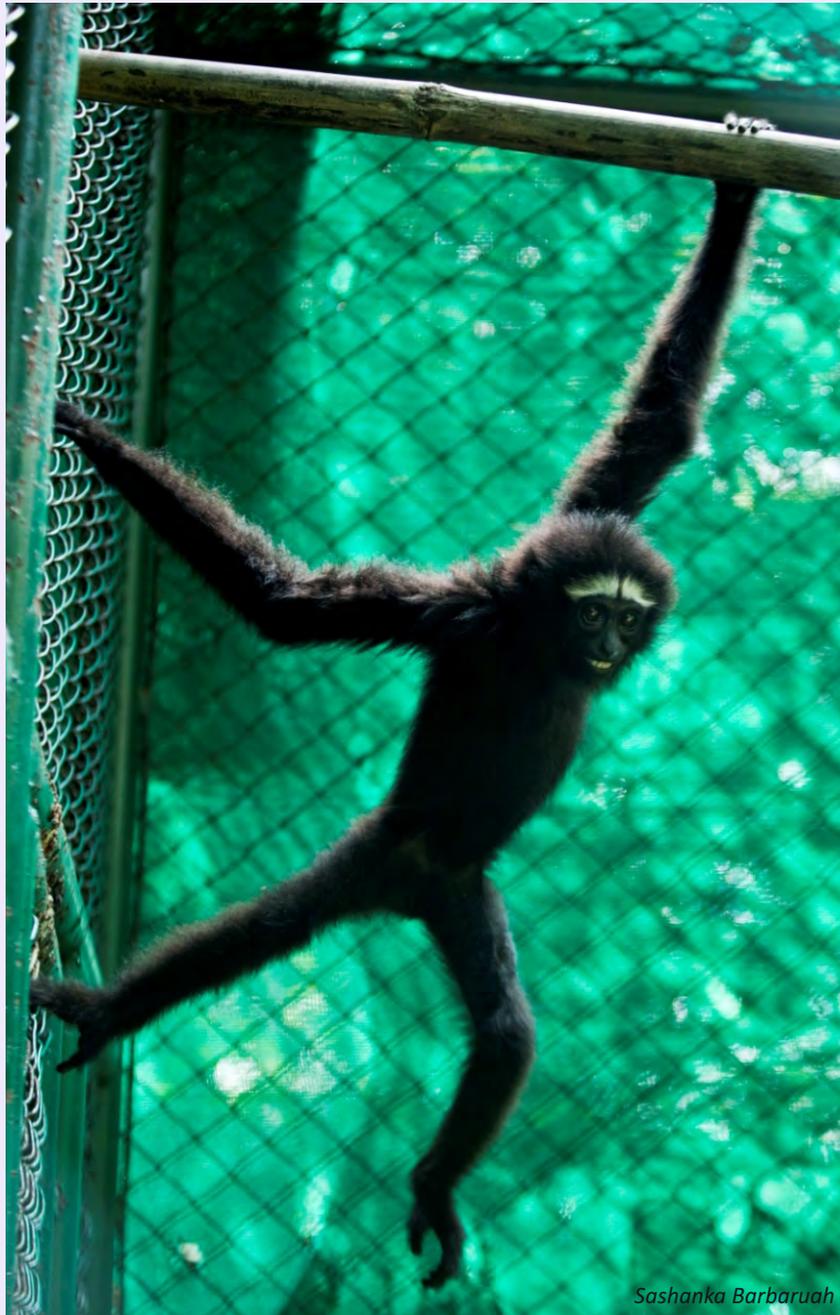
*Baby gibbons require the warmth and comfort of the caretakers in captivity (right). Bottle feeding (below) and with the veterinarian (right).*



Abhijit Bhawal



Prasnata Boro



Sashanka Barbaruah

Now begins the process of selecting an appropriate reintroduction site. In the wild, a highly territorial pair of gibbons and their offspring form small troupes and new mates are found in neighbouring areas. Apart from the usual criteria of minimal human/predator pressure and abundant food sources, the site should not have an existing family group that would chase away or injure or even kill the new animal. Release of a captive-reared primate into an area with no other gibbons would be just as bad, because if the gibbon does not find a mate, the primary goal of rehabilitating it back to the wild is not met. A captive animal would neither be able to contribute to the wild population nor be able to acquire the skills of a wild animal.

An ideal location is therefore a good forest patch within the home range of a solitary gibbon of the opposite sex. Once such an area is located a pre-release enclosure is secured high up in a suitable fruiting tree. The temporary enclosure protects the new animal until it is clear that the two gibbons will get along. Interactions between the gibbons occur through the mesh of the enclosure and once the animals are comfortable with each other, the door of the enclosure is left open for the captive raised gibbon to move out as required. The female gibbon paired and released in June 2008 in Panbari RF never used the cage again even for sleeping.

*A juvenile female Western hoolock gibbon brachiating in captivity at the IFAW-WTI-run rescue centre in Panbari RF near Kaziranga (left). A caretaker installing an environmental enrichment device in the enclosure (bottom).*



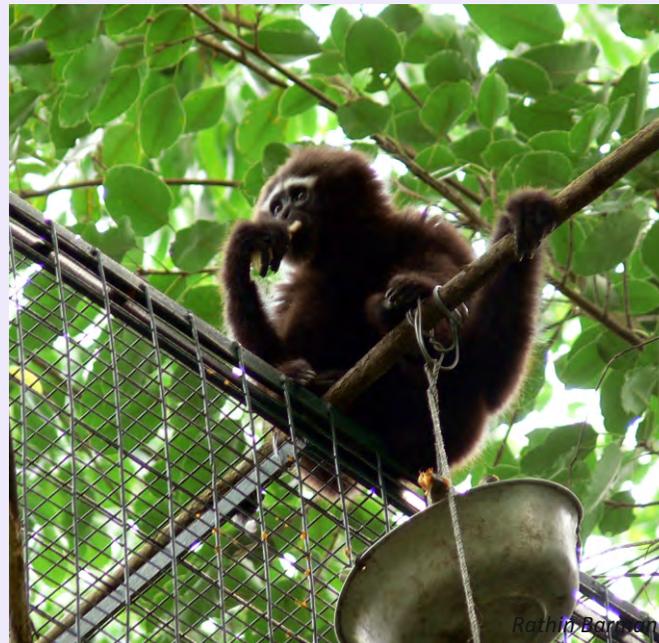
Anuradha Jayasingha



Rathin Barman



Rathin Barman

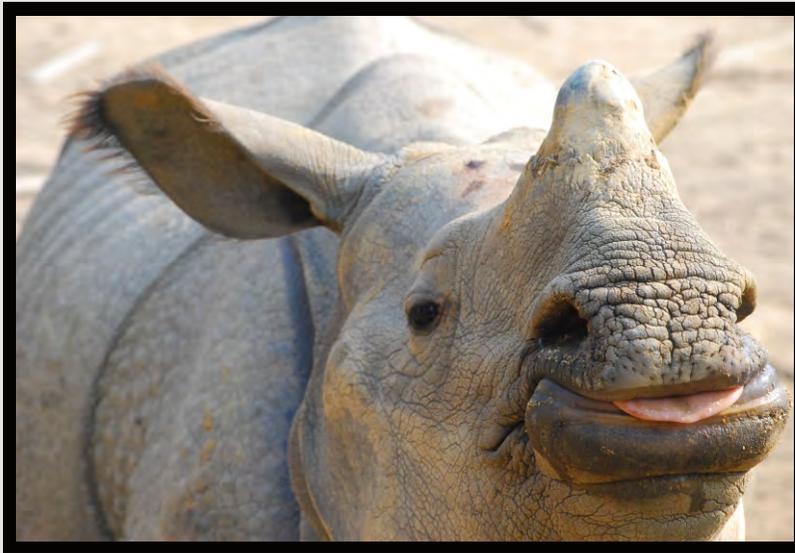


Rathin Barman

Post release monitoring in a paired rehabilitated gibbon is less complicated as they remain within the established home range of the wild gibbon. Radio-collaring is anyway not an option as the gibbons with their deft fingers can soon undo the collars. Also, implanting a transmitter would necessitate re-capture and a surgical procedure that could potentially harm the gibbon.

The first ever hoolock gibbon in India to be rehabilitated back to the wild following the 'soft release' protocol was Siloni, a female gibbon who came to CWRC as a six-month-old orphan. She gradually adapted to an arboreal life, sharing her home range with a wild male. She succumbed to meningitis exactly a year after her introduction to forests. She was a little more than six years old. We can only speculate about what might have been had she lived. Two other young Western hoolock gibbon orphans, a male and a female, between three and four years old are being cared at the rescue centres in Assam. A suitable reintroduction site has been chosen in the hope that the first rehabilitated gibbon pair will have a long and happy life as free-ranging wild animals.

*The large hanging enclosure that housed Siloni in the Panbari Reserve Forest (far left). The wild male waiting for Siloni's release (top left) and Siloni feeding on supplementary diet (bottom left).*



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