

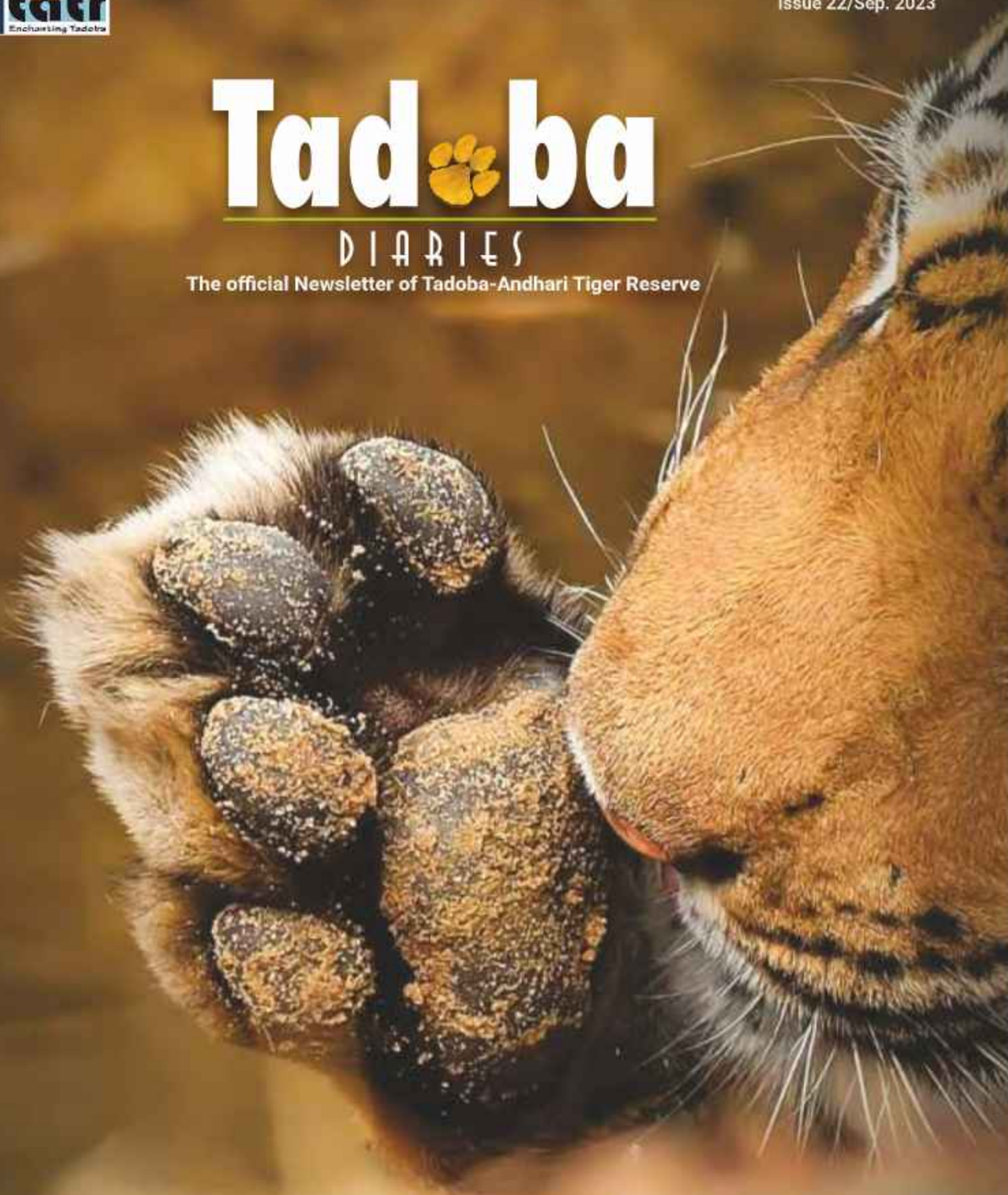


Issue 22/Sep. 2023

# Tadoba

DIARIES

The official Newsletter of Tadoba-Andhari Tiger Reserve





# Towards New Wilderness Experience

Dear Reader,

**T**adoba-Andhari Tiger Reserve offers a gateway into an incredible world of untamed wonder, far removed from the humdrum and chaos of urban, concrete jungles. Your journey into TATR marks your entry into an unparalleled wildlife adventure, where every minute carries the promise of encountering our extraordinary inhabitants. Thousands come to our corner of the world to be part of this experience, and our commitment to ensuring that your experience is second to none drives our current endeavor – the revitalization of Moharli and Kolara gates.

I am thrilled to share that Moharli and Kolara gates are currently being revamped to provide a new state-of-the-art Interpretation and Experience Center that showcases TATR's rich and vibrant ecosystem. Sounds and rhythms of the forest, dioramas, and life-scale models will unveil the hidden stories of our wildlife, ranging from royal tigers, majestic leopards, and grand Indian gaurs to the elusive pangolin. Photographs capturing the inter-web of life forms within TATR's mosaic of habitats- be it the tranquil wetlands, the green bamboo forests, or the verdant grasslands. Our exhibits will also highlight the diversity of birds, reptiles, and butterflies found in Tadoba while providing a peek into the often ignored but vital part of the ecosystem- plants of TATR. Did you know for instance that our reserve has insectivore plants?

Your experience of the magical world of TATR will begin right at the outset, as you watch our award-winning films featuring the TATR landscape and its 'star' tigers.

I would also like to draw your attention to the rich cultural history of this region. Our Interpretation Center will also illuminate the tribal histories, ways of life, and traditions that are interwoven with the forest and the land, a narrative that continues to play a vital role in TATR's conservation story.

The Experience Centre will take the visitor through the history of Tadoba-Andhari Tiger Reserve. Readers will be interested to know that the Tadoba landscape – Chanda– was once part of the Gondwana Kingdom of central India, ruled by the Raja Gond, before it fell to Maratha rule. Under British rule, it was declared a 'Reserve Forest'- a commercial working forest- where the trees were used for timber, and animals, including the tiger hunted. Tadoba's conservation value was recognized early, and hunting became restricted, and then finally prohibited in 1935. Tadoba became one of independent India's

first national parks in 1955. In 1986, the Andhari Wildlife Sanctuary was declared and a decade later in 1995, the Tadoba-Andhari Tiger Reserve was declared.

Writing this, I am reminded of how the role of foresters has evolved in response to the changing socio-political economy. During the British times and early years of Independence, our job was largely focused on the commercial aspect of forestry, which took a dramatic turn around 1970 to conservation, after the plight of the tiger and other wildlife became a matter of global concern. Tigers and a host of other wildlife - Great Indian Bustards, leopards, gharials, bears etc.-were threatened, deforestation was rampant and there was an increasing recognition of how vital all life forms are for our welfare. So we, the foresters, became guardians, protecting the forests, the wildlife, and the tiger became our core mission. And while that remains our central task, increasingly there has been the realization of how local communities who live in and around forests and have been their de-facto guardians for years are important partners in conservation. The conservation of wildlife and forests should also be a gateway to sustainable livelihoods for those who co-exist with wildlife. As regular readers of Tadoba Diaries and visitors to the reserve may be aware, our tourism model reflects this ethos, where local people are not just beneficiaries, but partners.

The support of the wider society in conservation is no less important. And so, we foresters become educators, spreading awareness and eco-consciousness, especially among school children and youth. In this, eco-tourism plays a critical role. And here, we let the wildlife, and the jungle do the talking. How can a visitor who has an encounter with the tiger not be bewitched, or remain unmoved by the sheer beauty and tranquility in the forest? As a forest officer, I am fortunate to be part of this ecosystem. Each time in the forest, I learn something new, and fall in love with the forest, strengthening my resolve to protect it, and its wild denizens and do well for the people who live in and around it.

I hope, as visitors, you too will feel the magic, and that our effort to further enhance your wilderness experience surpasses your expectations; and that visitors to Tadoba become our ambassadors for the wider world.

**Dr. Jitendra Ramgaokar**

Field Director, TATR  
and Executive Director, TATR Conservation Foundation

"Tadoba Diaries" is published by the Tadoba-Andhari Tiger Reserve Conservation Foundation, Chandrapur and printed at Renuka Publications, Chandrapur. The views and opinions expressed in the articles are those of the authors and do not necessarily reflect the official policy or position of the publisher. Reproduction of any content is not allowed without a written permission of the publisher.

Please share your feedback / inputs on [tadobadiaries2021@gmail.com](mailto:tadobadiaries2021@gmail.com) or call us on 07172-277116, 9579160778 / 8010539472 | For advertising call : 8169730713

Editor: Dr. Jitendra Ramgaokar, CF & Field Director, TATR | Executive Editor: Anant Sonawane, Communications Officer, TATR.



## P-P-P Mode in TATR

**T**ATR Buffer Division has a total area of 1,102 sq. km, out of which, around 400 sq. km is revenue land. It is a human-dominated landscape with different land uses such as farmland, villages, water bodies, resorts, etc. Through Eco-tourism and EDCs, the administration has developed a sense of ownership among the local villagers who help the administration in protecting the forest and wildlife as their income from tourism directly depends on the health of the habitat and presence of wildlife.

### The Problem

- With increased protection and improvement in habitat, the population of wild animals is increasing especially of wild carnivores like tigers, leopards, etc. The AITE report 2022 mentions TATR as a source region. It has a high population of breeding tigresses and after almost two years the sub-adults disperse in search of a territory. Since the park is almost at the carrying capacity with respect to tigers, the sub-adults have to migrate out of the tiger reserve. This outward dispersal pushes the animal to look for newer territories. As they walk through the corridor they cross through human-dominated landscapes and the chances for a human-wildlife negative interaction increases. For instance, in Chandrapur, there were 53 deaths in the calendar year 2022.

- The high population of wild herbivores in Buffer often venture into farms to raid crops. This leads to crop damage and frustration among the farmers. Quite often wild carnivores also follow herbivores and there are often cases

of their encounters with humans leading to human-wildlife negative interaction.

- Another factor that increases conflict is the village cattle. The livestock is easy prey for the tiger and in areas like Brahmpuri, the tigers mostly feed on cattle.

In all these situations the department has to rush to compensate for the loss of local people. It is because of the response of the forest department be it paying compensation, engaging locals, or rescuing an animal from a human-dominated landscape, the agony has been lesser, and people have more acceptance of such situations.

Thus, it can be concluded that with increased protection, the population of wild animals will increase, and chances of a negative interaction will also increase in the villages near wildlife corridors, agricultural fields, etc.

### The Solution

This complex problem requires a multi-pronged solution. Few suggestions include -

- Physical fencing in non-corridor areas
- AI-based virtual fencing in corridor areas
- Stalling open feeding/grazing of cattle
- Providing solar fencing around farms etc.

One interesting & comprehensive solution to increase the effectiveness of all these specific measures is the 4F





framework-based restoration to promote alternate farming approach & livelihood generation in the affected areas. The 4F stands for Forest, Fodder, Fruit, and Fuel. To implement this strategy, the model of CNC is required.

#### What is CNC?

CNC stands for Community-owned Nature Conservancies. Under this concept, a plot of agricultural land can be given up for rewilding and the TATR Foundation will pay compensation/incentive to the farmer. As one of the many possibilities, the farmer can start ecotourism over there by building machans for tourists. The tiger can become a breadwinner as income from tourism is quite high. As of July 2023, around 165 Acres of farmland have been taken into CNC.

Since the capacity of the TATR Foundation and the farmer is limited, the private sector/corporate sector can be roped in to not only invest in the land but also pay the incentive amount to a farmer for rewilding. A good example of this model is in Alizanjha Village in the Buffer area of TATR. This strategy is successfully being implemented there and it has reduced human-animal negative interaction. The private investor has developed all facilities for a comfortable stay of tourists and also given jobs to the landowner family in addition to the compensation for re-wilding. A tri-party agreement is signed between the farmer, the private party, and the department that works as a facilitator.

#### 4F-CNC model

The 4F strategy is designed and proposed to restore ecosystems across all parts of India in a truly sustainable manner. It suggests conserving physical elements (water, soil) at the degraded lands, then cultivating 4Fs (forests, fodder, fruits/NTFP & fuel-biomass) at the right scales & proportions, using the right technologies for better results and involving local communities throughout to ensure sustenance of the project. The strategy aims at achieving sustainable restoration and balancing ecological, economic, and social benefits.

For the 4F-CNC model to work, large tracts of land (1,000 acres or more) are required. The whole parcel of land will be used for the cultivation of forests, fodder, fruits/NTFP & fuel biomass.

■ **Forests** - This will ensure good corridors for wildlife apart

from sequestering carbon, improving microclimatic conditions, and increasing biodiversity.

■ **Fodder** - This is to feed the cattle/livestock and prevent their entry into the jungle for grazing and to give a boost to the dairy and animal husbandry business.

■ **Fruit** - Fruits bearing trees + NTFP shall be planted for commercial purposes. Proper plant selection can be done for different seasons as per the local agro-climatic conditions. These trees will help improve the overall tree cover as well as contribute to farmers' income.

■ **Fuel** - A specific biomass (grasses, shrubs) optimal for the generation of biofuel (e.g. briquettes, CNG, Hydrogen, ethanol) can be cultivated. This will ensure consistent income for the farmers and will help them transition to green energy options.

This 4F-CNC model can reduce animal-human conflicts and provide livelihood opportunities to the local people. The people will be paid for providing their land on lease on which this strategy will be implemented. The private sector will bring in investment, and technology and ensure a market for the produce. Jobs will be created as locals can work in their own fields. For the wildlife corridor, areas will be forested for easier passage of wild animals, and all this can be done under the supervision of the department in Buffer areas of TATR.

#### 4F-CNC through P-P-P mode

This 4F-based CNC model can be successfully implemented through a well-structured partnership between 3 Ps – Public sector, Private sector & local People.

**Public sector:** The forest department will play a crucial role in setting up the 4F-CNC project and in ensuring the balance of ecological, economic & social benefits of the project.

**Private sector:** Private parties will bring in sufficient investments, and the right technologies and will ensure smooth operations of the project throughout its life (biomass cultivation, sales & marketing, revenue sharing).

**Local People:** Local communities will be involved throughout in the form of their societies (say FPOs) and through direct/indirect employment to individuals.

- **Kushagra Pathak**  
Deputy Director, TATR (Buffer)

### Contribute to 'Tadoba Diaries'

Are you a forest department staff, tourist, guide, driver, working with a resort, managing a home stay or a community member from TATR vicinity? Do you want to join our effort to spread awareness on forest and wildlife conservation through 'Tadoba Diaries'? Please share your interesting photographs (not less than 4 MB) and experiences (not more than 250 words) on [tadobadiaries2021@gmail.com](mailto:tadobadiaries2021@gmail.com). Your photograph/experience must be related to TATR only. The best content will be published with due credit.



## Counting Tigers: A Herculean Task!

In the remote jungles, far from glitz and glamour, my fellow unsung heroes of tiger conservation set out to protect these endangered creatures. We embark on journeys covering thousands of kilometers, walking muddy paths, and facing various challenges. Setting up motion-sensor camera traps is a crucial aspect of our work. Each camera trap is carefully programmed with specific parameters, such as date, time, and flash power, and given a unique ID. These cameras are strategically placed on dry streams, walking trails, village paths, and paths leading to waterholes, ensuring maximum area coverage. Over 40 days, they stay in the same location, capturing videos and still photos of anything that passes by, including tigers, other wildlife, and even the mischievous antics of bears and wild dog pups. The camera traps become our best friends. Through the lens of these cameras, we learn to read the jungle, interpreting signs and tracks to spot elusive tigers. The cameras capture magical moments—playful tiger cubs, silent tiger families moving through the forest, and heart-stopping encounters with these powerful predators. Leopards stop to pose, and sloth bears playfully interact with the cameras, adding a touch of humor to the serious work of conservation.

### On Desk from Dawn to Dusk

The excitement of capturing thousands of images in camera traps soon gives way to the daunting task of data analysis. Each year, we receive nine to ten lakh images, making it essential to segregate them based on species. Despite the help of advanced software like CATRAX and SPseg, manual verification is still necessary due to technical errors in cameras or human mistakes while setting up the equipment. This process requires meticulous attention to detail, fixing date and time differences, and organizing the data for further analysis. Then only we reach the important step of Tiger Individual Identification.

Each tiger has its unique stripe pattern, akin to human fingerprints. To track and monitor individual tigers, it is crucial to identify each one based on these distinctive patterns. Analyzing 6,000 to 7,000 tiger pictures becomes a task that consumes sleepless nights and presents the fear of losing hard drives containing valuable data. However, every step we take in this process brings us closer to our goal of protecting these magnificent creatures.

Once we identify the already existing individuals, we give a



number to new individuals captured for the first time. We also give temporary IDs to sub-adults and cubs for official purposes. For example, a sub-adult of TATR-T7 female will be TATR-T7\_Sub 01, and for a cub, it will be TATR-T7\_Cub 01 (where TATR is the area code, T stands for tiger, and 7 is the unique ID number). We do not allot the ID until the individual becomes two years old, but this temporary ID helps us monitor sub-adults and cubs without any confusion. On the dismissal of any tiger individual, we do not allot its number to any other individual to avoid confusion. Later on, the data gets shared internally to check common tigers between two areas, and these tigers get noted down separately.

We cannot capture every tiger on camera despite enormous efforts. To deal with these technical errors, we also run a statistical test called SCCR (Spatially Explicit Capture-Recapture) to estimate the density and size of a spatially distributed animal population. Hence, when you see a tiger report, there are two values: one is the actual tiger individuals captured on camera (i.e., minimum tiger numbers), and the other is the estimated population (i.e., estimate of tiger numbers) in that particular area.

The work does not get finished here. Later, all identified tigers get into the national repository at the Tiger Cell of NTCA to be a part of the big data. Finally, they become part of the nationwide number of tigers. And now imagine seeing all 3,167 tiger pictures to check common individual interstate! That's how you get nationwide tiger numbers.

- Prajakta Hushangabdkar  
Wildlife Biologist, TATR





**D**uring our recent excursion to Tadoba, we were fortunate enough to have a close encounter with the tigress T-82, popularly known as Junabai and her two cubs. As our safari vehicle ventured deeper into the Madnapur buffer forest, a heartwarming sight greeted us – a cub resting in the shade! We eagerly anticipated the cub's awakening, yet it seemed disinclined to rouse from slumber. After waiting for some time, we shifted our focus to locate a male tiger named K2.

Our gypsy navigated its way through the lush thicket, and the enchanting beauty of the jungle captivated our senses. Abruptly, our guide's hushed command to halt reached our ears. Our gaze was met by the breathtaking sight of K2, a dominant male, serenely nestled in the grasslands. His head barely peeked above the vegetation. He displayed no intentions of stirring from his tranquil repose and we opted to return to Junabai's cub. A brief journey brought us back to the resting cub. Regrettably, it was still immersed in its slumber.

## Thrilled and Speechless

But soon, a faint sneezing sound emanated from the bamboo thicket, arousing our curiosity. Intrigued, we followed the sound and were incredibly fortunate to discover a stunning tigress, comfortably nestled in the shadows, with her second cub slumbering a mere eight to ten feet away! Concealed by the foliage, they were partially visible to us.

Approximately 30 to 40 minutes later, Junabai gracefully stirred from her rest and began moving toward her nearest cub. With a commanding roar, she beckoned the second cub, who exhibited a more timid demeanor. Opting to commence their evening stroll, Junabai led the way, her first cub following in her majestic footsteps.

We trailed their movement, expertly guided by our experienced guide, who ensured that we remained in their vicinity. This proximity continued until we reached a waterhole, where the elegant Junabai proceeded to quench her thirst, accompanied by her cub. After some delightful moments spent by the water, she retraced her steps to fetch her second cub. All three reveled in the pond, crafting indelible memories for us.

Above all, Junabai exuded an air of confidence, elegance, and fearlessness in the presence of our vehicles. This remarkable demeanor, we realized, was a legacy she was passing on to her cubs – a realization that left us thrilled and speechless.

- Hetal Shah

IT Professional, Ahmedabad



## Unexpected Encounter

Driving back to the lodge, the car's headlights cut through the darkening landscape. Suddenly, my mother's keen eyes detected a presence beneath a tree. The driver promptly reversed the vehicle and directed the headlights towards that spot. Astonishingly, a leopard emerged into the view. Even in the diminishing light, the intense gaze of the leopard left an indelible impression on us. The leopard lingered for a few minutes, contemplating whether to ascend the tree. Eventually, he crossed the road and disappeared into his domain.

This unexpected encounter with the leopard at the fringes of the safari zone reaffirmed that Tadoba has something unique to offer to every visitor. This moment remains etched in our memories as a remarkable experience, one that we will cherish forever.

- Akash Sinha

Insurance Professional, Kolkata

**I**t was a scorching summer afternoon in June 2023. Despite the relatively slim chances of spotting a tiger, we embarked on an evening safari in the Pangdi core zone, drawn by its picturesque beauty. While we encountered numerous animals and birds, the elusive tiger remained hidden from our view. As our second safari concluded, a tinge of disappointment settled in due to our failure to catch a glimpse of the majestic creature.



## Fork-tailed Drongo-Cuckoo

Common Name: Fork-tailed Drongo-Cuckoo

Scientific Name: *Surniculus dicruroides*

Family: Cuculidae

Size: 23 cm

Habitat: Open forest and shaded trees

**T**his is a very uncommon bird for TATR. A keen birdwatcher can find Fork-tailed Drongo-Cuckoo in TATR during the rainy season. This year I could watch it frequently in the Kolsa range.

Many times Fork-tailed Drongo-Cuckoo is mistaken as Black Drongo because both the birds look similar. This Drongo-Cuckoo too has a fork tail like Drongo. However, it is smaller and slimmer than Drongo. During monsoon, one can see it sitting on the top branch of a tall tree and making a 'Pee...Pee...Pee...Pee' sound.

There is one more type of Drongo-Cuckoo. It is called Square-tailed Drongo-Cuckoo (*Surniculus lugubris*) and is found in South and East India.

- Rundan Katkar

Range Forest Officer, Kolsa, TATR



## In the Land of Tigers

**T**his summer vacation I was fortunate enough to visit a wildlife reserve- Tadoba-Andhari Tiger Reserve. En route to the reserve, I noticed that within 150 kilometers and just two hours of my travel I was teleported from a rapidly growing Metro City, Nagpur, to a remote rural area of Maharashtra-Tadoba.

On my arrival at the campsite, I met 70-year-old Shankar Gonda, a resident of this jungle from his birth. I also met his son who manages the campsite. Me and my parents had a chat with both of them and came to know of an interesting story about Tadoba. A story in these parts goes about a local man who became a deity. Taru, a respected village headman, encountered a mighty tiger at a lake near his village. A fierce battle ensued, and the man became a legend. A shrine was erected in his honour and the forests surrounding it came to bear his name. Hence, from Taru, comes Tadoba. Fascinating, isn't it?

While being at Tadoba I was super excited to see a tiger just a whisker away from our gypsy on one of the afternoon safaris, but it also made me ponder how villagers staying in nearby areas go about in life sharing space with 100+ tigers and many other species of animals in and around Tadoba. What happens when they cross each other's path? Are they at risk and what do they do? During my stay, I kept asking all these questions to my parents and our tour guides. Finally, on a chance meeting with an NGO volunteer, I came to know a lot about how man-animal conflict is managed in the region.



Tadoba is part of the largest contiguous tiger habitat in the world known as Satpuda. I am told that an NGO going by the same name, is doing a lot in the area to save wildlife, and forests and at the same time helping locals to share their habitat with wildlife by avoiding man-animal conflicts. The grassroots conservation work involves soil and water conservation activities and wildlife protection by assisting the Forest Department in anti-poaching and firefighting.

I also learned about what it takes to make a sustainable living and how it is helping villagers in livelihood activities. This can be done by encouraging unemployed people to voluntarily shift away from forests by helping them to get jobs elsewhere. I can vouch by witnessing that most tourist guides, drivers, and forest staff were from the nearby areas.

I invite you all to visit Tadoba to experience the wilderness and also contribute to eco-conservation initiatives.

- Alabhyaa Joshi

Standard-6, Delhi Public School, Pune





Nitin Uite

**OH DEER!**

The intense desire to spot a tiger during a safari may lead you to overlook the countless natural wonders around you. Therefore, when you venture into Tadoba, keep an open mind and immerse yourself in the forest's captivating beauty. A photographer skillfully captured this exquisite moment—a spotted deer standing on its hind legs, reaching for its meal.





Arif Ayub Ali



## MISSING A TIGER!

Observing a tiger in its natural habitat is undoubtedly an exhilarating experience. However, waiting in anticipation for a tiger's appearance, only to miss it, is equally riveting. I encountered this situation twice in two days.

One evening, perched on a Machan with a Range Forest Officer (RFO), I was enjoying bird watching near a water hole. Asian Paradise Flycatcher male presented a spectacular show of his beautiful long tail, flying skills, and unique way of drinking water. An over-cautious barking deer visited the water twice, ran away, and finally quenched its thirst on the third visit. As the day began to dim, we prepared ourselves to descend. Suddenly, the air was filled with alarm calls of spotted deer and the chattering of langurs. Soon after, the resonating roar of a tiger echoed through the surroundings, marking its territorial dominance. The tiger was less than 500 meters away from us. We held our breath in suspense. He was on the move, gradually drawing nearer. We deciphered his proximity from the persistent alarm calls. Yet, in an abrupt twist, he changed course and denied us the privilege. Although we couldn't lay eyes on him, his presence was palpable.

The day before, positioned at the protection hut locally called Sanrakshan Kuti, I discerned the alarm cries of deer at around 3:15 p.m. On inquiring with the protection workers there, they revealed that an unnamed, elusive male tiger had been spotted at a waterhole the previous day. This waterhole was a mere 500 meters away from the Kuti. Lacking a vehicle, we decided to venture on bikes to investigate. Five of us embarked on this journey with two bikes. Before departing, the Kuti workers advised me to carry a bamboo stick – the sole tool that jungle foot soldiers possess.

In scarcely five to seven minutes, we reached the vicinity. About 10 meters before the waterhole, we noticed distinct pugmarks. This was evidence of his presence! We hastened towards the waterhole, only to find it vacant! The tiger had eluded us! The Kuti workers ventured further to inspect the area. Despite the scorching afternoon heat, a rock by the bank remained damp. When we were examining the pugmarks on the road, the tiger was submerged in the water. Sensing our approach, he emerged from the water, ascended the rock, and vanished into the wilderness. A matter of seconds separated us from this spectacle! Yet, the signs of his recent presence were gratifying enough to bring me joy.

In the realm of Lara, the tigress extraordinaire, nature's drama unfolded, reminding me of the unfathomable intelligence and instincts that governed the wild. And as we retreated from this enthralling spectacle, a newfound appreciation for the intricate dance of life and death in the wilderness resonated within me.

- Anant Sonawane  
Communications Officer, TATR



## Chappad Phad ke

**W**hile Tadoba is renowned for its tiger sightings, it is also home to other esteemed wildlife such as leopards, sloth bears, and wild dogs, which are not frequently seen. If luck is on your side, you might catch a glimpse of these prominent creatures. But what if you're the luckiest one?

Two years ago, I was on an afternoon safari with my guests in the Alizanjha buffer forest. The initial hour and a half proved to be rather dry in terms of noteworthy sightings. However, around 4 p.m., our fortunes changed as we arrived at a waterhole. There were no visible signs of any animals, and no alarm calls could be heard. Just as I was contemplating moving forward, a young leopard emerged at the waterhole seemingly out of thin air! It was a delightful and unexpected surprise.

Having savored the leopard encounter, we departed from the location and resumed our journey. As we neared the road, a sloth bear appeared, making its way along the path.

Continuing onward, we reached the Kumbhai waterbody in the hilly terrain. Regrettably, there was a lack of mammalian activity in the vicinity. Nonetheless, I had the privilege of spotting a pair of Indian Eagle Owls—a rarity in Tadoba.

With our return journey beckoning, my attention was drawn to fresh tiger pugmarks on the road. Guided by these tracks, we embarked on an exciting journey that led us to a fantastic



Arvind's Creation

discovery: a young tiger T-138, affectionately known as Mowgli, gracefully strolling along the road. Witnessing him in the evening sunlight was an absolute delight. He indulged us by allowing a brief follow before vanishing into the surrounding bushes.

Joyfully, we resumed our homeward journey. Our safari was almost at its conclusion as we approached the park gate. Unexpectedly, a pack of wild dogs burst onto the road, serving as the perfect final touch.

Indeed, this experience exemplified the saying: "Jab Tadoba deta hai, to chappad phad ke deta hai!" which means "When Tadoba gives, it gives abundantly!"

- Arvind Chaukhe  
Guide, Alizanjha Gate

## Aromatic Caper

**E**xiting Moharli village and heading left, near Salai Homestay, a gentle aroma wafts from the exquisite flowers of the Caper bush (*Capparis decidua*). This captivating scent has drawn me to this plant for numerous years. Recently, I discovered an intriguing connection between one of my favourite pickles and the diminutive 'ber' fruit resembling Caper fruits.

In the Mediterranean region, the underdeveloped flower buds and partially matured fruits of the Caper are employed to infuse a distinct aroma, piquancy, and saltiness into pasta sauces, pizzas, and meats. Historically, during Biblical times, the Caper was believed to possess aphrodisiac qualities, although this assertion lacks certification. However, its application as a remedy for



Issam Barhoum, CC BY-SA 4.0

flatulence does aid in alleviating stomach gas.

The exquisite Caper flowers boast numerous elongated pinkish stamens encircling a solitary style, adorned with an outer sepal resembling a bonnet, imparting them with their distinct appearance. The fragrance emanates from a steady secretion of nectar, enticing bees and other insects, a strategy for securing effective pollination. Throughout the day, the nectar's concentration adjusts, catering to the preferences of diverse pollinators.

Remarkably, this nearly foliage-free plant thrives in nutrient-poor soils within semi-arid conditions, largely due to its partnership with mycorrhizal fungi. This symbiotic relationship between the fungus and its roots facilitates nitrogen fixation, enabling its successful growth.

- Anirudh Chaoji  
Senior Naturalist





## Proud Moment for TATR

**T**he Marathi rendition of the Tiger Anthem was unveiled on the 14th of August at Tadoba-Andhari Tiger Reserve (TATR) in Moharli, Maharashtra, by Shri. Sudhir Mungantiwar, the Forest Minister of Maharashtra. This enchanting anthem features captivating visuals filmed within the scenic confines of TATR, with a the most renowned tigress of Tadoba, T-12 Maya, and her cub playing the lead role. This exceptional initiative was a collaborative effort between Times of India and the esteemed filmmaker Nalla Muthu, who invested tremendous dedication into its creation.

The Marathi version received widespread acclaim during its grand launch event, with dignitaries lauding the efforts of



Nalla Muthu and his dedicated team. The team includes music composer Shantanu Moitra, lyricist Tanveer Gazi, Marathi lyricist Charudatta Bhagwat, editor Karkki Jothibasu, producer Anay Tarnekar, and the sponsor of the Marathi version Sunil Mehta.

It's worth noting that the anthem had already been released in Hindi and has amassed more than 150 million views on various social media platforms.

Mr. Mungantiwar expressed his pride in the fact that Tadoba's iconic tigress and her cub graced the video, and he suggested that the Tadoba administration consider establishing a state-of-the-art 7D theatre at the proposed ecotourism complex in Moharli to showcase the anthem. He also recommended that Nalla Muthu create a 40-minute film centered around Tadoba.

Dr. Jitendra Ramgaokar, Field Director of TATR, highlighted in his introductory speech the significance of releasing the Marathi version of the anthem during the celebration of 50 years of Project Tiger.



The beautiful Bamboo Mushroom (*Phallus indusiatus*) is also called the Veiled Lady mushroom.



Cubs of tigress T-158 popularly known as Babli's cubs in a playful mood.



The initial attempt to domesticate wild animals is believed to have been made by hunter-gatherer tribes during the Mesolithic period around 9000 BC. Since then, humans have steadily improved their ability to keep and utilize animals for various purposes, refining these animals through selective breeding. While the interaction between domesticated animals and wildlife was initially rare, the increasing number of domestic animals and the human population led to more frequent contact.

The concept of an interface, as per the Oxford Dictionary, refers to a point where two systems, subjects, organizations, etc., intersect and interact. Applying this idea, we can consider the wildlife-livestock interface as the juncture where wildlife species and domesticated animals come into contact and engage. In practice, direct interactions between wildlife and livestock are uncommon; instead, indirect interactions prevail. Defining this interface is a complex task, given the variability influenced by species and ecosystems involved. It often corresponds to ecological interfaces where different land use systems coexist. In numerous cases, the boundaries between ecosystems occupied by domesticated livestock and wildlife are blurred, lacking a distinct ecological demarcation. Notably, the human population is now considered part of this interface due to the close association with livestock and the frequent transmission of zoonotic diseases across it.

The characteristics of this interface depend on various types of contacts among wildlife, livestock, and humans. Natural ecological barriers exist, and humans have erected artificial

## Interface

barriers, mainly in the form of fences. Anthropogenic development has rendered the interface more linear due to intensified human and livestock populations.

As the global human population continues to rise, there is a growing encroachment into previously wild habitats by both people and their animals. Surviving habitats often fragment, leading to isolated populations and 'ecological islands'. Consequently, the extent and intensity of interactions between humans, livestock, and wildlife are on the rise. Particularly in parts of Asia, dense human populations have driven intrusion into forested areas and wildlife habitats. These areas frequently undergo habitat modification for human use, with protected areas resembling isolated islands within modified landscapes. Close contact between people and their domesticated livestock adds to the intensity of the interface, frequently resulting in human-wildlife conflicts.

The method of disease transmission plays a pivotal role in the epidemiology of diseases at the wildlife-livestock interface. Various transmission types occur, impacting the nature of contact required for successful disease transmission. Given the rarity of direct physical contact between wildlife and domestic animals or humans, transmission often occurs through environmental contamination of shared resources by infectious discharges (such as feces, urine, saliva, or mucous membrane





## Wildlife – Livestock – Human

secretions) or via intermediate vectors. Different diseases, including FMD, PPR, bTB, Brucellosis, Anthrax, and Bovine malignant catarrhal fever, exhibit direct transmission through infectious discharges or contaminated feed, water, and range. Indirect transmission by vectors is categorized into flightless vectors (Tick-borne diseases, Theileriosis, Cowdriosis, Lyme disease, African swine fever) and winged vectors that can biologically (Trypanosomiasis, Rift Valley fever, Salmonellosis) or mechanically (Anthrax) transmit diseases across the interface.

Phylogenetic relationships among hosts at the interface significantly influence disease transmission. Over 80% of pathogens affecting domesticated animals can infect wildlife, with closer kinship between wild hosts and their domestic counterparts enhancing pathogen sharing. Certain wild ungulates, particularly Bovidae and Canidae, play an outsized role in transmitting interface diseases, reflecting their shared ancestry with domesticated ruminants and dogs.

While wildlife species are often blamed for disease transmission across the interface, human activities drive this transmission. Factors like urbanization, agricultural expansion, intensified livestock practices, the trade in bush

meat, and habitat fragmentation or loss are key drivers. Ecological changes stemming from these activities encourage pathogen spread by introducing new populations to each other, altering contact rates and mechanisms, and reducing biodiversity. For instance, the emergence of Kyasanur Forest Disease in Karnataka State in 1957.

Disease transmission across the interface can deeply impact wildlife health, especially for introduced or exotic species. The impacts encompass both direct consequences (such as mortality, altered reproductive rates, and behavioral changes) and indirect effects (like intra-species competition, predator-prey interactions, and shifts in vegetation dynamics).

Effectively managing interface areas is crucial from ecological and epidemiological standpoints. Disagreements regarding disease control sometimes polarize agricultural or veterinary authorities and conservationists. With the intensification of the wildlife-livestock-human interface, a holistic ecological approach to management becomes imperative. The ongoing anthropogenic development driving disease transmission poses a threat to animal and human health, as well as the conservation of vulnerable species. Despite recognizing the epidemiological significance of the interface, our understanding of transmission dynamics is often hampered by limited data on wildlife diseases. A deeper comprehension of the interface is essential to foster healthier ecosystems.

**-Dr. Ravikant S. Khobragade**  
Veterinary Officer (Wildlife), TATR







**SELFIE TIME!** Every creature within the forest exhibits sincere intrigue towards the camera traps set up by the forest department to document wildlife movements. Among them, the monkeys stand out as particularly inquisitive. In this image, a Northern Plain Grey Langur can be seen peering directly into the lens of the camera trap.

## The Achievers July 2023

Please join us in celebrating the achievements of the best-performing forest guards at TATR. These frontline soldiers of the forest department have done the maximum foot patrolling in their respective divisions.

We are happy to announce the top two achievers in July 2023



Forest Guard - R. M. Mundale  
Beat - Karwa-I  
Round - Karwa  
Range - Karwa  
Division - Core TATR  
Duration - 19 Days  
Target - 125 km/Month  
Actual Patrolling - 171.81 Km



Forest Guard - M.A. Gaikwad  
Beat - Piparheti-II  
Round - Shioni  
Range - Shioni (Buffer)  
Division - Buffer TATR  
Duration - 22 Days  
Target - 125 km/Month  
Actual Patrolling - 309.24 Km.

Subscribe

**Tadoba**  
DIARIES

If you liked this issue of Tadoba Diaries,  
you can subscribe it for a year.

**Annual Subscription Fees  
Rs. 300/- Only**

**Now**

More pages ...  
More content ...

**Please follow these simple steps to subscribe :**

- 1 ▶ Transfer Rs. 300/- to following account.  
Executive Director, Tadoba-Andhari Tiger Reserve Conservation  
Foundation, Chandrapur  
**SBI A/c No: 30714733456 | Branch Code: 1941**  
**IFSC: SBIN0001941 | Branch: Shastrinagar, Chandrapur**
  - 2 ▶ E-mail us the screen shot of the payment confirmation or UTR/Ref. No. on  
subscriptiontd@gmail.com or What's App us on 8010464632 along with the  
following information.  
**Name | Mobile No. | What's App No. | e-mail ID**  
**Address - House No./Name, Building No. Name, Street , Area,**  
**Village/City, Tehsil, District, State, Pin Code.**
- ▶ You can also pay the subscription fees at any of the safari gates at TATR.
- ▶ Your Tadoba Diaries copy will be delivered to you by post every month.



## Endurance of Life in the Wild



**U**nder the scorching mid-May sun, we ventured deep into Tadoba Core, an experience only comprehensible to those who've endured it. The heat drained us relentlessly, leaving us fatigued and parched. Accompanied by three fellow adventurers, we found ourselves guzzling down nearly twenty water bottles before noon, a testament to the intense conditions.

In the face of such heat, options were limited. The road lay barren, devoid of life seeking refuge from the sun. Amidst these challenging circumstances, the logical choice was to frequent the various water holes scattered around. These oases offered solace to both large and small creatures, making them a vital destination.

During one such pause, an unexpected sight unfolded – two synchronized shapes in the distance! Disbelief washed over me as I recognized the forms – two sub-adult sloth bears! While spotting sloth bears wasn't unusual in Tadoba, encountering two sub-adults simultaneously was a stroke of luck. Such an event was a rarity, especially during these hours when the forest seemed to hold its breath in the intense heat.

Anticipation gripped us as we hoped these elusive creatures would reveal themselves. Capturing them within the thick undergrowth would detract from the experience. Sloth bears, typically shy, seemed bolder in their quest for water, venturing into an open space near a dwindling pond.

Though modest, the pond was a lifeline for these parched bears. Larger water sources carried risks due to the presence of predators like tigers. The forest's intricacies were evident – survival relied on seizing opportunities for sustenance, a concept the vulnerable understood well.

As I aimed my camera at these sub-adult sloth bears, a sense of accomplishment surged within me. Photographing both bears in one frame was a triumph, for both my passion and the well-being of these siblings. Contributing to their well-being in a challenging environment highlighted the interconnectedness of all life within the ecosystem.

In essence, that scorching day in Tadoba Core revealed the forest's resilience. Survival meant embracing fate and moving forward undeterred. The satisfaction of photographing the bears was matched by the gratification of watching them quenching their thirst.

- Sanjay Deshpande  
Wildlife Enthusiast,  
Sanjeevani Developers, Pune

**MY SWIMMING POOL  
MY FOREST  
MY HOME**



**“When We Build Your Home in Pune,  
We Also Care for Their Home in Tadoba!”**

© Sanjay Deshpande, TATP, May 2023



@jungle\_belles  
fjungle\_belles  
www.junglebelles.in  
+91 7750881922



sanjeevanidevelopers  
Sanjeevani Deve  
www.sanjeevanideve.com  
020-79049851 | +91 98508 83387







### Boating Site

Sitarampeth



**For Booking**  
Surendra Mangam  
8657935941

## Explore Tadoba Like Never Before!

Scan for



Tadoba Movie

Scan for



[www.mytadoba.mahaforest.gov.in](http://www.mytadoba.mahaforest.gov.in)



### Kayaking

Moharli



**For Booking**  
Sanjay Junde  
9834689541  
Avinash Rathod  
9158928393



### Adventure

Agarzari



**For Booking**  
Ajay Kodape  
9730853324



### Camping Site

Agarzari & Madnapur



**For Booking**  
Ajay Kodape  
9730853324  
Rupesh  
7083669491



### Cycling

Moharli



**For Booking**  
Sanjay  
9834689541  
Avinash  
9158928393



## Book Today!

### COLLECTOR'S EDITION OF TADoba DIARIES

A **must-have** book for any Tadoba enthusiast

Collated content from the first **13 issues**

**158 pages** full of stunning wildlife photographs,  
exclusive interviews and behind-the-scenes insights!

### Limited-time offer!

Price: Rs. 750 + Courier Charges = **Rs. 1000**

1. Transfer Rs.1000/- to following account.  
Executive Director, Tadoba-Andhari Tiger  
Reserve Conservation Foundation, Chandrapur  
SBI A/c No: 30714733456  
Branch Code: 1941  
IFSC: SBIN0001941  
Branch: Shastrinagar, Chandrapur

2. E-mail us the screen shot of the  
payment confirmation or UTR/Ref. No.  
on [subscriptiontd@gmail.com](mailto:subscriptiontd@gmail.com) or  
What's App us on 8010464632 along  
with the following information.

Name | Mobile No. | What's App No.  
e-mail ID

Address -  
House No./Name, Building No.  
Name, Street, Area, Village / City,  
Tehsil, District, State.  
Pin Code.

Book-Post

To, \_\_\_\_\_

From,

**Tadoba-Andhari Tiger Reserve Conservation Foundation**  
Mul Road, Chandrapur, Maharashtra. 442401  
Ph. 07172 - 251414