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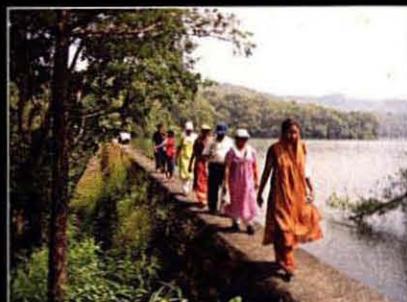
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Editorial Assistant

Ahalya Naidu

Layout

V. Gopi Naidu

Cover

King Cobra

Janaki Lenin

Published and printed quarterly by Rachel Reuben for the Bombay Natural History Society, Printed at Stusa Mudra Pvt. Ltd., Lower Parel, Mumbai.

Reg. No. RN 35749/79, ISSN 0441-2370.

For more information on the Society and its activities,

write to the Honorary Secretary, Bombay Natural History Society, Dr. Sálím Ali Chowk, S.B. Singh Road, Mumbai 400 023, Maharashtra, India.

Tel.: (91-22) 2282 1811

Fax: (91-22) 2283 7615

E-mail: bnhs@bom4.vsnl.net.in

Website: www.bnhs.org

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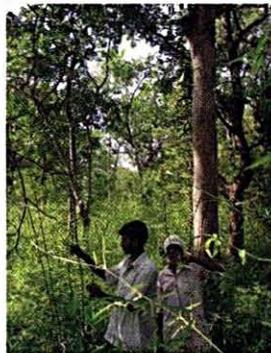
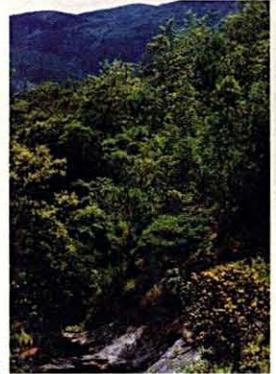
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How did Romulus Whitaker's dream of a field station in prime King Cobra land become a reality? **Janaki Lenin** lets us into the details

Queen of the Hills — Ootacamund

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Katie Dubey recollects her life as a young girl in picturesque Ootacamund and although 'much abides' she despairs at the destruction it has seen



Communities also conserve

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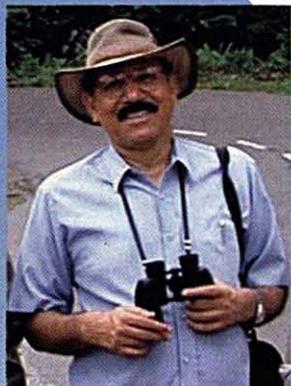
Community initiatives at conserving ecosystems and species are a widespread but under-reported phenomenon in the world explain **Ashish Kothari** and **Neema Pathak**

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The morning was peaceful, with fresh air drafting through my window. As I lay looking forward to another lovely day in this great city Mumbai, I heard the conservancy staff of the Brihanmumbai Municipal Corporation (BMC) silently, almost stealthily, removing the garbage from the bin in front of my house. The sweet song of the Magpie Robin told me that it was time to leave the bed. As I went for my early morning walk in a garden in Chembur, a leafy suburb of Mumbai, I saw that the retired gentleman was not feeding mangy stray dogs, something he did for many years before he joined the BNHS and learnt what true conservation meant. He was instead gently playing with a handicapped girl who had recently come to the city from Tamil Nadu with her family and was living in a small rented room, provided by the considerate Maharashtra Government. The smile on the face of that three-year old girl would make anyone's day.

As I walked swiftly in the garden, I came across three dogs, all leashed to their owners. They were adorable – both the dogs and their owners! I wish I could also keep a pet dog, but I live alone and frequently go out of Mumbai for extended periods. Who would then take care of my dog? I think no one should keep a pet unless he/she is able to take good care of it. A pet is like a child and needs as much care. It is criminal to leave them as strays. All dogs should be pet dogs, and all stray dogs should be humanely euthanised to put an end to their long miserable life. While sitting on the garden bench after a rigorous brisk walk, I overheard two gentlemen saying that the last stray dog in our locality had been euthanised by the BMC only three days ago. This was further corroborated by my colony's watchman, whose son was bitten last year by a stray dog and had to undergo a course of painful injections to prevent rabies.

The only pair of crows that I see regularly had been hoodwinked by the crafty Koel and the poor crows were left raising the Koel's chick. The population of crows has declined rapidly in Chembur since the BMC started cleaning the neighbourhood, the residents too have joined in and no longer throw garbage out of their windows or feed these ubiquitous birds. The old man, who used to feed costly biscuits and bread to the crows and stray dogs every morning, has probably joined his mentor. Now there is no food to attract these undesirable animals. This has also helped bring down the number of crows in our area. The Iora, the Golden Oriole, the Bulbul, are all very happy.

As I returned from my morning walk, reinvigorated by the fresh air, I saw the perky Tailor Bird teasing the stolid cat of my neighbour, fully knowing that the lazy, overfed cat was not interested in her. The Tailor Bird was able to raise two broods last year in the bushes in our colony's compound, thanks to the care taken by cat lovers who literally belled their cats! Putting a small bell collar on pet cats has helped millions of birds escape an untimely and unnecessary death. This has been proved by the Royal Society for the Protection of Birds in UK, a nation of bird and cat lovers. Thanks to our collaboration with the RSPB, I was able to bring this simple technique to India and was able to convince my friendly neighbours to put bell collars around the necks of their cats. We were all happy to see the results – all the three chicks of the Magpie Robin survived, and the number of Red-vented Bultuls has also increased, despite the unfriendly Greater Coucal that makes regular rounds of our colony, looking

for eggs and chicks of small birds. But, the Coucal is a part of the bird community of any Indian garden, and is as desirable as a Bulbul or a Tailor Bird.

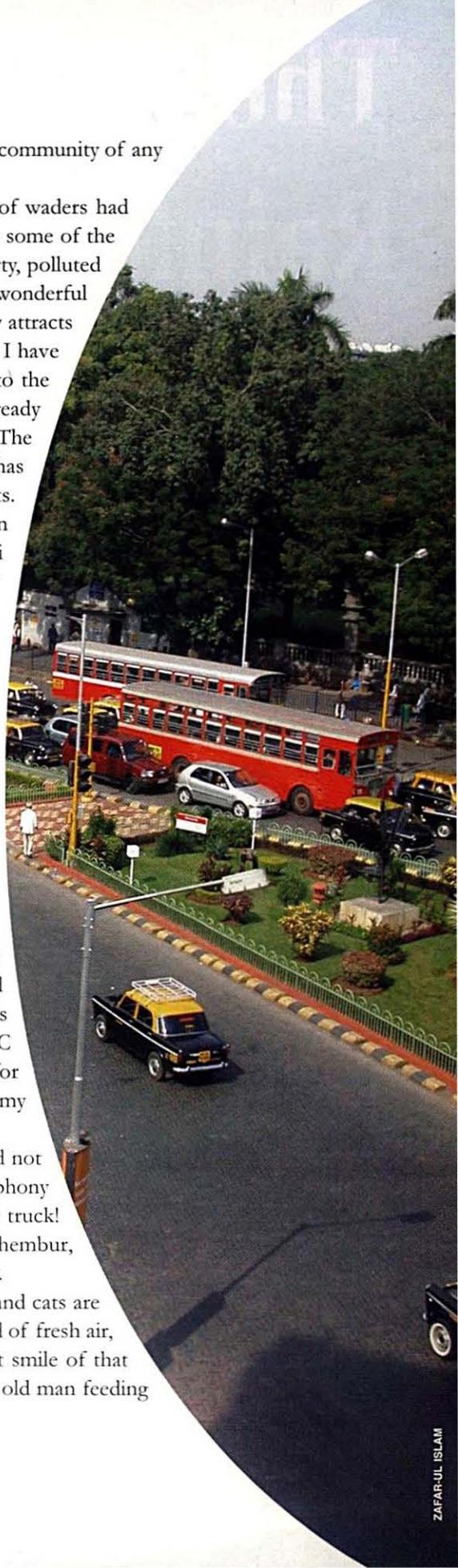
I was delighted to read in the newspaper that a large number of waders had been reported on the banks of the Mithi River, which passes through some of the densest areas of Mumbai. Only a couple of years ago, Mithi was a dirty, polluted *nallah*, where no self-respecting bird would come, but thanks to the wonderful steps taken by the BMC, Mithi River is now really *mithi* (sweet), it now attracts a large number of waders, and an occasional pair of Spot-billed Duck. I have decided to visit Mithi River the coming Sunday, but first I must go to the Sewri mudflats where more than twenty thousand flamingos have already arrived, in addition to the thousands of waders, egrets, gulls and terns. The swanky new six-lane driveway, connecting Mumbai with Nhava Sheva has already started functioning, about 1 km from the Sewri mudflats. Fortunately, the Maharashtra State Road Development Corporation agreed to the proposal of the BNHS to shift the road to save the Sewri mudflats, a globally Important Bird Area. It has now become extremely popular with Mumbaikars, and even the Maharashtra Tourism Development Corporation proudly advertises it as a 'must' visit destination. Who says development and conservation are mutually exclusive?

After a quick breakfast, I started for office, about 21 km away. I usually cover this distance in about 30 minutes, but today I was late by five minutes due to a small accident of a taxi with a truck. But I must thank the Traffic Police for quickly removing the stranded taxi from the road to allow the morning traffic to move smoothly. The rule against honking is now in place for years and the only sound that I hear is the zoom of fast moving vehicles. Even the BEST buses have become comparatively silent. No jay walker came suddenly in front of a vehicle. Everyone was either using the numerous subways or zebra crossings to cross the road. Looking out of the window, I realised that the last time I saw anyone squatting in the open playground was nearly ten years ago. In collaboration with Sulabh International, the BMC has provided toilet facilities all over the city, so there is no reason for anyone to shame himself/herself in public. I am proud to say that my country has joined the league of civilised nations.

Suddenly, a loud noise from the BMC truck ended my dream. I had not slept well last night due to the constantly barking stray dogs and the cacophony created by a religious festival. Now this loud noise of the garbage truck! Hundreds of crows roosting outside my fifth floor apartment in Chembur, some call it the gas chamber, had also woken up to create more noise.

Did anyone ask whether I heard the Tailor Bird? Forget it. Crows and cats are efficient killers. I dare not go out for the morning walk, because instead of fresh air, I would inhale fumes of the autorickshaws, and instead of the bright smile of that innocent girl, playing with her newly acquired toys, I would see an old man feeding costly biscuits to dogs and crows.

The dream is over. The nightmare begins!



The Agumbe Rainforest Research Station

Text: Janaki Lenin

If you are a researcher in the Western Ghats, tired of staying in Inspection Bungalows or Forest Rest Houses under the threat of eviction and your experience of life in the jungle is the same as mine, read on. My memory of working in the rain forests of the Western Ghats goes like this – wet tent, damp firewood, leeches galore, mouldy clothes, an unending series of dinners of semolina, instant noodles, rice and dal, and a desperate craving for pizza. Of course, there is the bright side of camping – of time spent watching a giant millipede make its way across the leaf litter, glow-worms that light up the night like earth bound stars, lizards that seem like butterflies as they glide from tree to tree and waking to the call of the Malabar Whistling-Thrush. For a late blooming naturalist like me, whose idea of comfort was four walls and a bed, the dreariness of camping (which hits a low at nightfall) outweighed the joyfulness (during the day) and I suspect that's the reason why so many field researchers drop by the wayside in India. Rom Whitaker decided that if researchers can't be brought to the mountains, then the mountains will have to meet them half-way. That was how the idea of the field station began more than a year ago.





ROMULUS WHITAKER

Agumbe, a Reserve Forest is not accessible from Someshwara Wildlife Sanctuary and Kudremukh National Park because of a steep escarpment, but the Reserve Forest is contiguous with both forests

But why in Agumbe, you may well ask. Agumbe holds a special place in Rom's heart as he caught his first King Cobra (*Ophiophagus hannah*) there back in 1971. He has since visited the place as often as he could. When the rest of the country's towns and cities are undergoing a vast transformation, it appealed to him that Agumbe has remained the same for the last 35 years. Okay, there are a couple of extra tea stalls, but that is the only visible change. The people are still warm and effusive, bringing you hot steaming cups of heavenly *kashayam* (a non-caffeinated medicinal drink) to ward off the rainy chills. It also helps that the people here have a reverence for King Cobras, missing elsewhere. In one case a King Cobra strayed into a bathroom and the people of the household lived with it for three days before seeking our help. They consider it to be a god who has graced their house and they were very particular that we didn't harm the snake (or anger it) in any way. "That's half the battle won," Rom said in admiration. After living all his life in places where it was hard to convince local people

to let snakes live, it was a welcome sign that he didn't have to do any proselytising here. Rom's dream was also to have a station where King Cobras casually cross the backyard to drink from the spring, and he found it in Agumbe.

Agumbe is only a non-glamorous Reserve Forest, but adjacent to one of the last surviving lowland rainforests, Someshwara Wildlife Sanctuary and the more famous Kudremukh National Park. A couple of kilometers from the town into the Reserve Forest, Rom came across an eight-acre plot of agricultural land. When we heard that the family was looking for a buyer, we began scrounging for money. Rom's mother, Doris Norden, said she would like to give him some money for the cause. Hectic parleying began with the owners, but before the deal could be concluded, Doris died. Exactly a year later, Rom bought that piece of land with money his mother had willed him and finally Rom was the proud owner of land in prime King Cobra territory.

ASHWIN H.P.



An uncommon snake in India, the King Cobra is threatened throughout its range because of habitat loss



ASHWIN H.P.

Studying the King Cobra is a subject fraught with many challenges

In April 2005, Rom won the prestigious Whitley Award in the United Kingdom, which will help set up cottages, buy basic scientific equipment, and a vehicle. The land is not connected to the electric grid and Rom decided he wanted a place that was a model of sustainability – a hybrid of solar and hydel electricity will power the station. It's easier said than done, unless you have expert help, which we found in Jos van den Akker of Auroville. Jos found ways to cut costs and put us in touch with hydel power expert, Ramasubramanian. We needed help with building designs and blueprints so Srikumar Menon, a faculty member of the Manipal Institute of Technology volunteered. A team of his architectural students has come up with a design for the cottages and during the first week of January 2006, construction will begin. The Rainforest Research Station is finally becoming a reality.



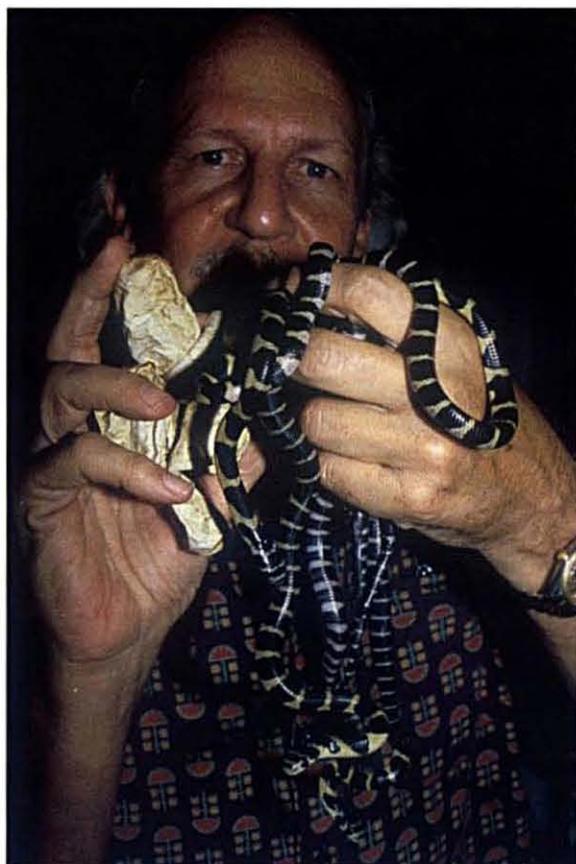
JANAKI LENIN

Above: A data logger records the temperature in this wild nest. The eggs are usually laid five to six weeks after mating and up to fifty-one eggs have been found in a clutch

Below: Only a couple of these hatchlings will survive to become adults

Naturenet Café is the name of the local village information centre that Rom dreams of setting up in tandem with the field station. With high speed broadband and intranet connectivity, local farmers can find the best market prices for their produce, school students can get trained in the new technology, and information on sustainable ways of farming, land use, ecology, wildlife will be made available here. Tourists can purchase locally made handicrafts and information on the rainforest, not to mention hot cups of *kashayam*, King Cobra T-shirts and merchandise. For me, it's just the place to send emails from, without having to hike up to Thirthahalli or down to Manipal.

It has been a frustrating few months – we had the money and the designs, but the monsoon was in full swing. At the time of writing, Agumbe had already received more than 7000 mm of rain, reportedly second only to Cherrapunji. As we sat in the courtyard of the old mud farmhouse and watched the rain, a flock of White-necked Storks walked in and out of the mist. Birders visiting the station made a casual list of 200



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species of birds, Barking Deer visit the land, a troop of Common Langurs are our shy neighbours and of course there are the King Cobras. Recently, a leopard was seen utilising the Station as a corridor.

P. Gowri Shankar is the intrepid Education Officer who lives onsite. In between visiting local schools and colleges on environment education campaigns, he has caught eighteen King Cobras from people's houses, gardens, wells and plantations. Early this year, he became the first researcher to ever witness a wild King Cobra making her nest. Rom scurried around for a video camera to send to Gowri but by that time nest building was complete. The mother abandoned her nest after a few days because of a disturbance nearby – a landowner decided to set fire to a massive tree trunk which smouldered for days. Smoke is anathema to snakes and it effectively drove the mother snake away. The temperatures and humidity of two other nests (both also abandoned by the mother snake) on private estates were monitored throughout the entire period of incubation and the results of the first such studies of

wild nests are beginning to emerge. In all instances, Rom put his hand deep into the nest to put in data loggers and reported that the packed mound of vegetation kept the eggs dry during the torrential rains. The output from the data logger, however, suggests that the pile of leaf litter does not raise the temperature of the nest chamber. These wild eggs took a lot longer than captive eggs to hatch because of the low temperatures they incubated in, but they produced very healthy, sturdy babies. Surprising too was the hatching rate of 99% - we thought we were doing well with 60% in captivity. The natural incubator the mother King Cobra makes from leaves somehow keeps the eggs healthy, while no man-made incubator seems capable of maintaining high humidity without fungal attack.

One observant villager mentioned that he had seen the mother King Cobra bask in the morning light and then go into her nest. Perhaps she was bringing additional heat into a cool nest to aid incubation? Maybe there was survival merit in speeding up incubation so the eggs remained vulnerable only for a short time. Until we find a



ROMULUS WHITAKER

The Agumbe Rainforest Research Station is a model of sustainability



JANAKI LENIN

A.R.R.S. Education Officer, P. Gowri Shankar, is often called to rescue King Cobras from houses

nest with a guarding female, this will remain mere speculation. And therein lies the conundrum – female King Cobras in the Western Ghats seem to be very sensitive to disturbance. They seem to flee at the first smell of danger and yet we have heard of some persistent females, who tried to return to their nests for days despite being repeatedly chased away by people. It's a matter of time before we come upon a determined nest guarding King Cobra and until then the questions will remain unanswered.

In March this year, Gowri was called to a house to catch a King Cobra that had fallen into a well. After considerable difficulty he pulled out a male. The very next day the same people called Gowri to catch another King Cobra, which had fallen into the well. It turned out to be a female. Intriguingly, this leads us to surmise that female King Cobras may actively seek their mates.

In April, we visited a nest abandoned by a mother King Cobra who had been nesting in the same place for the last three years, according to the villagers. If this is true (and you can be sure we will be there next nesting season) this will be the first recorded evidence of King Cobra nest-site fidelity in India. Every single nest site we have seen in the last two years has been

GPS marked (as was every capture and relocation) and in the following years, it would be interesting to see if nest-site fidelity is the norm.

One of the questions also remaining to be answered is – why do King Cobras gravitate towards habitation. For years, the standard reply was because rats live with people; Rat Snakes come to eat rats and King Cobras follow to eat the Rat Snakes. But there is a possibility that King Cobras living close to villages may seek coolness during the hot dry months and warmth in the cold rainy months. We make convenient cave-like dwellings (we call houses) that provide the optimum temperature for a snake when the weather is harsh.

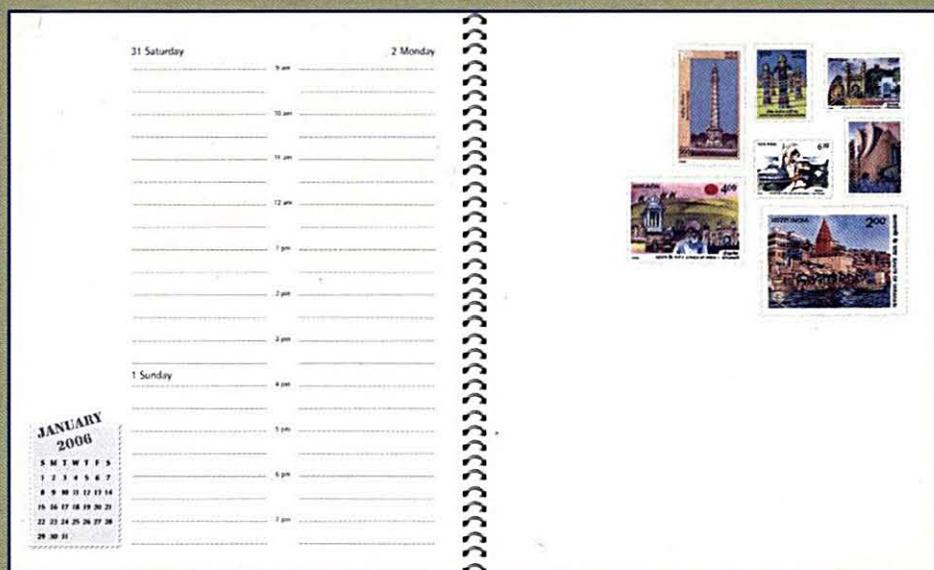
We hope the Agumbe Rainforest Research Station will function in just the same way for researchers – a cool place to hang out in, in the middle of the rain forest. ■

Janaki Lenin is a keen naturalist, wildlife filmmaker and prolific writer. She is interested in people's perceptions of wildlife and is working towards resolving conflicts, if any, between the two.



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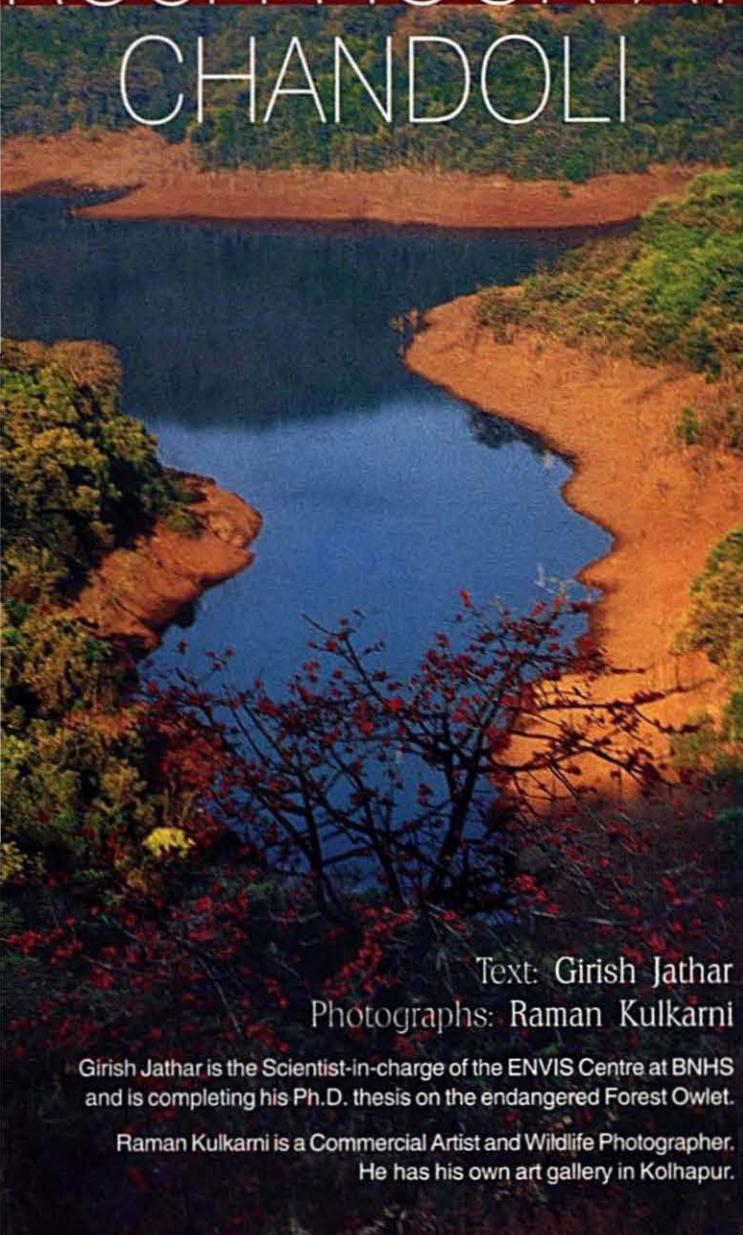
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RUSH HOUR AT CHANDOLI



Text: Girish Jathar

Photographs: Raman Kulkarni

Girish Jathar is the Scientist-in-charge of the ENVIS Centre at BNHS and is completing his Ph.D. thesis on the endangered Forest Owlet.

Raman Kulkarni is a Commercial Artist and Wildlife Photographer. He has his own art gallery in Kolhapur.

Place: Chandoli Wildlife Sanctuary
Time: 0700 hrs

Chandoli Wildlife Sanctuary is situated in Northern Western Ghats in Maharashtra. As we approached the valley, we saw a giant Shalmali *Bombax malabaricum* in full bloom, like an unusual but pretty fountain against the Warana River. A magnificent sight! A number of birds milled around the tree, sipping nectar, eating flowers, sallying forth for insects. For the next hour and a half we sat 10 metres away and watched rush hour begin at Chandoli.

Compared to peak hours on city roads, it was an unending parade of life in its various forms, and colours. The jostling of impatient creatures contrasted sharply with the calm atmosphere that enveloped us in the forest. Our camera tried hard to keep up with the morning rush and freeze moments from that hectic hour.

During this period, we saw 11 species of birds visit the tree for breakfast. The Black Bulbul, Indian Hanging-Parrot and Gold-fronted Chloropsis were among the most common, the Blue-winged Parakeets devoured not only the nectar but also flowers, while the Drongos were interested in insects and nectar.

And to think these are but a few images, taken during only one hour, with our sight fixed on just one tree...

Blue-winged Parakeet

Psittacula columboides

Endemic bird of the Western Ghats, only found in evergreen biotopes at higher altitudes. Sometimes they descend to raid crops along the edge of the forest. They are always seen in small parties and flocks. They eat flowers, buds, petals and nectar. Unlike other parakeets, the male takes care of the young at the end of the nestling period.





White-cheeked Barbet
Megalaima viridis

Usually seen in pairs and small parties, but congregations can be observed on flowering trees. Quite aggressive and quarrelsome, often found fighting with other bird species. Due to their green colour they remain unnoticed on leafy trees. They can be heard more often than seen. They generally feed on *Ficus* fruits, berries and nectar, and sometimes eat insects from the tree trunk.

Ashy Drongo
Dicurus leucophaeus

They are undoubtedly woodland birds and are never found in the open like the Black Drongo *Dicurus macrocercus*. They are generally seen singly, or in pairs and sometimes in small parties. Can be easily recognised by their ashy under parts and crimson red eyes. They are mainly insectivorous birds, but are often found feeding on nectar. They gather around forest fires to catch the escaping insects. Ashy Drongos can mimic the calls of other birds.



White-bellied Drongo
Dicurus caerulescens

Very similar to the Ashy Drongo, but differs in having a white belly. They also live in pairs or small parties and often gather on flowering trees for feeding on nectar. Excellent mimics and possess a very sweet call. Remarkably crepuscular in habit and are often seen in mixed-flock hunting parties.





Indian Hanging-Parrot
Loriculus vernalis

Seen in pairs and small parties. Their leaf-green colour and size camouflages them perfectly on the trees and they remain unnoticed most of the time. They are unique in the avian world as they sleep upside down like bats. Feed on various fruits, berries, wild figs and nectar. Unlike parakeets, they do not destroy the flowers while feeding that's why they are considered good pollinators.

Thick-billed Flowerpecker
Dicaeum agile

Agile and swift birds found singly or in pairs. Forage on treetops; recognised by their characteristic metallic chirping call. They also have the habit of twitching their tail from side to side. Mainly feed on figs but also eat other fruits, berries and nectar.



Indian Blackbird
Turdus simillimus

Live singly or in small flocks. Generally look for food on the ground and seldom climb atop trees. They are well-known as one of the songsters of India. Very fond of nectar and gather around flowering trees quite often. During the breeding season the male sings a melodious song interspersed with mimicry of other birds' calls. Recently, this species was separated from the Common Blackbird *Turdus merula*, which is extralimital to the Indian region.

Square-tailed Black Bulbul

Hypsipetes ganeesa

Arboreal and noisy birds. Generally found in small parties and sometimes even seen in large numbers. Live at canopy level and seldom descend for foraging. Feed on fruits, berries and insects. They are often attracted towards flowering trees where they can feast on both nectar and insects. Recently, this species was separated from the Himalayan Black Bulbul *Hypsipetes leucocephalus* because of its square-shaped tail, lesser crested head and lack of a black moustache. ▶



Purple Sunbird

Nectarinia asiatica

Seen singly or in pairs and are almost invariably found on flowering trees. They visit almost all the flowering trees in search of nectar and their bill and tongue is adapted for that purpose; the tongue can reach the end of the flower where the nectar is. This helps in pollination. It plays a major role in cross-pollination of various plants. ◀

Gold-fronted Chloropsis

Chloropsis aurifrons

Also called 'Leaf Birds' as they are green in colour and almost invisible in the thick foliage. Generally live in pairs and small parties. They are considered as important 'flower birds' and aid in pollination of numerous flowering trees. Very agile and aggressive and do not allow other birds to feed on the same tree. Feed exclusively on berries, insects and nectar. ▶





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Queen of the Hills — Ootacamund

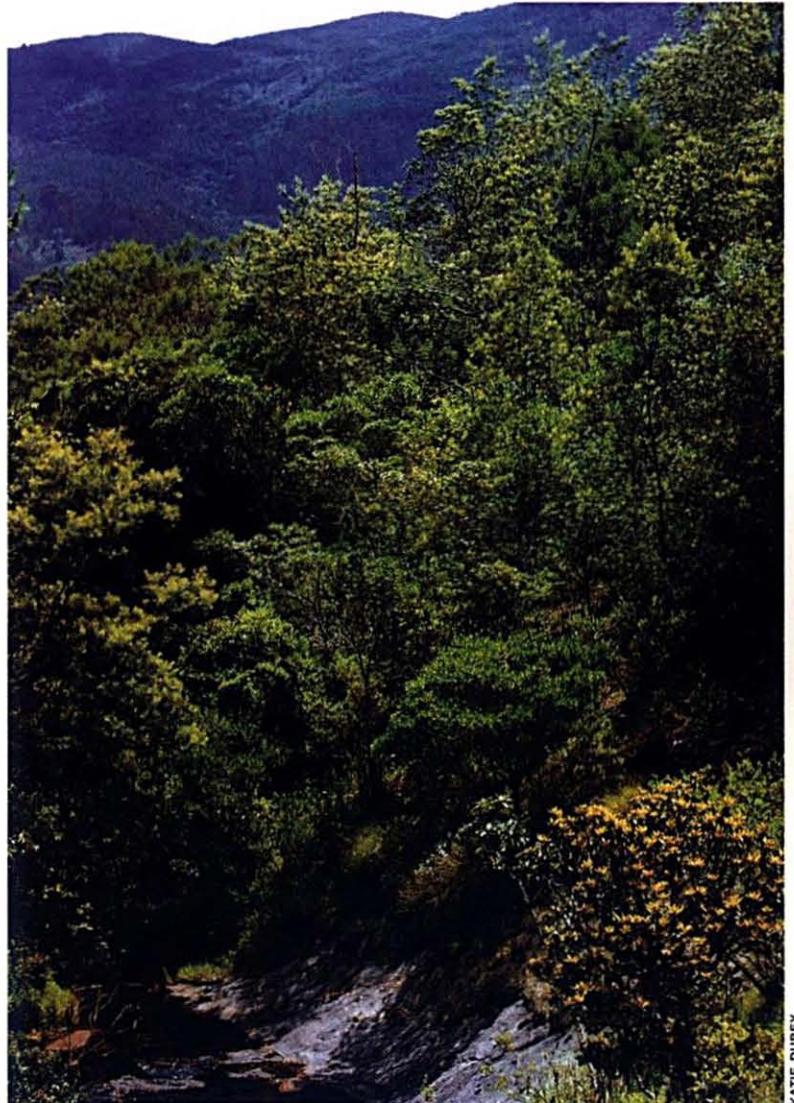
Text: Katie Dubey

I spent five blissful years in Ootacamund, studying at the Nazareth Convent which was situated on a hilltop and was surrounded by green slopes, rolling down to and separated from the lake below by the Lake Road. During outings, hikes, walks and boating expeditions I grew intimate with it. Three decades later, I returned to the scene of those vibrant memories

Mid-1998

On a beautiful balmy morning, as the sun rose over the horizon, I left the plains of Coimbatore and headed for the hills. The broad road contoured gently and was edged by a railing. The inner edge held tall trees, large random daubs of bare earth, numerous young saplings and clumps of grass. In a short while, I slipped uneventfully into Ootacamund.

Chill winds on the rampage crossed the mountains, raced across the grasslands and hit the buildings in its path. It lanced through woollen clothing, skin and muscle,



Evergreen trees grow along the banks of streams that criss-cross the hills

KATIE DUBEY

and lodged within the bones. Standing on the balcony and trembling in its wake, somewhat like the *Eucalyptus* tops quivering in the distance, I remained rooted to the gallery, absorbing the scene, swinging back and forth in time as memories arose, receded and mingled with the vista beyond.

Sketched out on the horizon in greyish charcoal strokes, the hills rose in ranges from the earth and flowed like a rocky tidal wave, viewed through a gauzy grey-blue screen. Murky clouds covered the sky and plumped down on to the shoulders of the mountains beneath. Disembodied peaks hung in space.

Laughing and brooding in turn with the sun and the clouds, stood the terraced slopes of tea plantations dotted with some aged *Eucalyptus* trees standing sentinel at random intervals all over the plantations, their slender trunks tall and unbranched, peeling off in greenish-grey strips. Flower gardens broke the monotony of browns and greens with splashes of vivid colour.

I was saddened to see a number of slopes shorn of vegetation and holding instead hideous extended concrete and cement structures that stretched across the brown inclines, staring like blind eyes with their jarring pink or white outer facades. Enormous hoardings proclaimed them to be 'The Best Hotels with the Most Facilities and the Cheapest Rates'. The hills seemed oppressed with cement and concrete structures jutting upwards, scaling the once tree-canopied skyline. People poured out from every nook and corner carrying radios, packaged food and plastic bottles as they moved about, shattering the peace with loud music and unceasing chatter.

Tears smarted my eyes and I slipped through its veil to a time when just a handful of people resided here unobtrusively, and nature held sway. When eight schoolgirls could walk abreast the road and only single storied cottages and shops, with shingled red roofs overshadowed by treetops, dotted the slopes.



KATIE DUBEY

Tea plantations and hotels have taken over the hill slopes that used to be home to a range of flora and fauna

Early 1964

A long ride, generously laced with gut-wrenching moments of anxiety as the car groaned over a steep ribbon-thin strip, hugging the mountainside. We zigzagged, moved over rock-hewn ledges and negotiated hairpin bends (with a lump in the throat and a thumping heart looking askance at the drop to eternity). Twisting over each bend tortuously, we gained height and moved past jungles whose tall trees arched over the road and its stubby undergrowth screened the creatures lurking within. Then, the air cooled and a fresh aromatic breeze wafted through the open windows. The vista shifted to one of evenly stepped terraces holding tea plants, strewn with *Eucalyptus* trees. As the corkscrew ascent smoothed out, a large hoarding tacked to the vast girth of an old tree announced 'Welcome to Ootacamund, Queen of Hill Stations'.

We emerged onto the main road, skirting a deep blue and green, rather still lake. Fairly large, ballooning out at one end and streaming off into the distance, it lay rippling in the breeze. By the roadside, its shores held precisely spaced out trees planted a hundred years ago, now tall and thick, their foliage casting deep shadows on the water. On the opposite bank in the slush, grew clumps of Arum Lilies, on thick green stalks with big drooping leaves, while large white flowers folded like paper cones held out a bright orange stamen to tempt the butterflies, bees and insects. Willows drooped over the water, clumps of green algae lazied on the surface and the odd lotus rafted serenely on its wide waxed leaf. Shoals of minnows, tiny silvery fish, large as a finger, would dart to the surface and disappear in a flash.

Oaks, pines, elms and firs, their girth quite intimidating, stood entrenched on the raised banks along the roadside. The Blue Gum, ranking amongst the world's tallest trees, flourished, and some specimen planted way back in 1863, towered over almost 69 metres.

Crowning the Queen of Hills was its Botanical Garden, spread over 55 acres. In the centre lay a fossil trunk 20 million years old,



Long boat-rides, the beatific scenery and calm environ ensures that Ootacamund stays popular with tourists

alongside a rare species of the cork tree, the only one in the country, the Bark Tree and the Monkey Puzzle tree. Thirty types of *Eucalyptus* and a thousand different species of plants all spread out in captivating formations.

The surrounding hills varied in height and character. Inviting green slopes of grasslands studded with tiny colourful flowers peeking through grass six inches high, and the edible three-leaved clover lay hidden between the grassroots.

We climbed the steep and rocky slopes to gaze upon a mighty cascade of water dropping like a frothy white curtain, lacing into bubbles as it hit the pool many hundreds of feet below, accompanied by a pleasantly monotonous gush that steadily filled the silence of the hills. The sheer dizzy drop created a flutter in the stomach and the grand vision of the mountain range beyond rose up from the valley in the distance.

The birds were never silent, particularly in March and April when spring cut the frost and awakened jungle and meadow. The



VARAD B. GIRI

The Long-tailed Shrike *Lanius schach* is partial to groves of young date and palmyra palms

Chestnut-bellied Nuthatch (*Sitta castanea*), with red eyes, beak and legs, blue back, white throat and chestnut belly ran up and down the fat trunks looking for insects. "I often saw the shy Black-and-Orange Flycatcher (*Ficedula nigrorufa*) and the White-throated Fantail-Flycatcher (*Rhipidura albicollis*) whose nest was a cup of bark cemented to an overhanging twig close



VARAD B. GIRI

The Hill Swallows *Hirundo domicola* are frequently seen perched huddled together on bare upper branches of dead trees in clearings

to the ground. The Pied Bushchats (*Saxicola caprata*), Red-whiskered Bulbuls (*Pycnonotus jocosus*), Nilgiri Laughingthrush (*Garrulax caccinans*), Long-tailed Shrike (*Lanius schach*), green woodpeckers, kingfishers, whistling thrushes, Common Hoopoe (*Upupa epops*), Asian Fairy-Bluebird (*Irena puella*) and the Nilgiri Flycatcher (*Eumyias albicaudata*) were usually seen in the open countryside.

More than 800 years ago, people from the plains saw the mountains perpetually wrapped in a bluish haze, and named them Nilgiris; *Nila* - blue; *Giri*-mountains. The area consists of a great plateau about 35 miles long and 20 miles broad, raised approximately 1981 metres above sea level. Geologically, the upheaval at the junction of the ranges of the Eastern and Western Ghats, which run southwards at a converging angle through Tamil Nadu, forms a sort of rock column in the earth's crust, the highest point of which is Dodabetta peak.

The Big Mountain – Dodabetta – in Toda dialect, is 2633 metres above sea level and is the highest point south of the Himalayas with the exception of a single peak in Travancore. The other three peaks, Snowdon, a perfect cone at 2529 metres, Club Hill at 2447 metres and Elk Hill at 2465 metres along with Dodabetta, shelter 'Ootacamund'. This range towering above the surrounding country rising from north and south to its highest point helps to control the climate, sheltering the eastern part from the Southwest and the western part from the Northeastern monsoons and creates widely differing seasons on the plateau. This makes the region bio-geographically diverse, ecologically complex and fragile, rich in a sizeable number of endemic plants and animals whose nearest relatives are to be found only in the Himalayas and particularly on the eastern end.

The Todas, a pastoral tribe were the sole inhabitants of the *munds* - hills, since pre-historic times. Dense jungles and malarial swamps at the base of the mountains kept all intruders at bay. The Todas and their *munds* remained undisturbed for eons.

Sometime in 1812

Two Englishmen, crashed through the swamps and jungles, in pursuit of fleeing criminals, and “emerged onto a natural game sanctuary within a vast *shola* forest where numerous Elk (Sambar *Cervus unicolor*), jungle sheep and bears were often seen and the cheery call of the Junglefowl was heard at all times.” The salubrious climate, beautiful surroundings and plentiful game caught their fancy.

Seven years later, the collector of Coimbatore, John Sullivan, intrigued by the account of his men concerning these hills, rode with his team to the hill. The rejuvenating air, green hills somewhat like the downs of England and dense forests full of game and other birds made him resolve to remain here. The tale is that he went to the Todas and negotiated a fair amount of land from the naive tribals for a paltry sum of money. Sullivan christened it ‘Ootacamund - the Queen of Hills’ and promptly proceeded to change her complexion to resemble that of Queen Victoria’s England.

Sullivan bought 200 acres of land at Re. 1 per acre, cleared the forest and started a flax and hemp plantation. British soldiers on sick leave and retiring officers began to flood the plateau. Houses were built and the sholas received the axe to provide timber and firewood. The rape of the hills commenced as large tracts of forest were cleared away.

English apples and peach trees, strawberry and the seeds of English flowers and vegetables, were brought into Ootacamund. The denuded red hills were now cut in steps to hold tea and potato plants.

So quickly was the forest felled that the British themselves were alarmed and began to replace the shola with imported trees. The Australian Blackwood (*Acacia melanoxylon*) and the Silver Wattle (*Acacia dealbata*) were introduced along with English oaks and firs that rounded off the illusion of “little England-in-India.”

The Blue Gum (*Eucalyptus globus*) came in 1843 and within a decade its systematic planting spread all the way down the hills and into the

“I am a part of all that I have met”

—Tennyson

surrounding areas. Other varieties like the *Pinus longifolia*, *Cryptomeria japonica*, *Cupressus* sp. and *Casuarina quadrivalvis* were also imported and planted.

The Botanical Garden was laid out in 1848 on the lower slopes of Dodabetta, which have been described as “a forest with heavy trees growing on steep and rugged banks, while the lower part was a dismal swamp traversed with deep ravines.” These were cleared and a large variety of exotic plants took their place and flourished in the rich soil. The lake became an irrigation tank, through the damming of a stream and was enlarged by the construction of a bund.

The British population increased steadily. The plateau became a shikar centre with its wide variety of fauna that comprised of the Tiger (*Panthera tigris*), Leopard (*Panthera pardus*), bear, Asian Elephant (*Elephas maximus*), Gaur (*Bos gaurus*), Chital (*Axis axis*), Barking Deer (*Muntiacus muntjak*), Fourhorned Antelope (*Tetracerus quadricornis*), the Nilgiri Tahr (*Hemitragus hylocrius*) and several others.

Consequently, by the early 1870s, animals that had not migrated had been decimated for many miles around Ootacamund. Sambar, that had once populated Dodabetta, Snowdon and Elk Hill (the dense population of Elk (Sambar) on the hill gave this name) ranges had completely disappeared.

In 1947, the British finally left India and controls on ownership vanished. Affluent Indians seized business opportunities, buying off large tea estates with an eye on the enormous profits in tea exports. The government furthered the cause of the small farmers by creating a tea co-operative. Prices soared in the international market, tea exports

“Though much is taken, much abides”

—Tennyson



KATIE DUBEY

Remnants of Ootacamund's British past still dot the landscape

rocketed in the 1980s bringing more hills under tea plantation. But in 2000, the tea market collapsed. With liberalisation and imports under World Trade Organisation, prices crashed further, leaving many planters in severe crisis and considering a shift to other crops or vegetables. Any such radical agricultural change is bound to result in serious ecological consequences in the form of enormous soil loss and geological instability.

In 1850, *Eucalyptus* was introduced from Australia by the British to halt the felling of native forests for fuelwood, and by the 1950s we destroyed the primary forests, grazing, and catchment areas to plant *Eucalyptus* for supply to oil factories and synthetic rayon factories in the plains. It took three decades for people to realise that *Eucalyptus* absorbed immense quantities of subsoil moisture, damaging the delicate ecological balance and causing severe water shortage in the hills.

Over 500 hotels and lodging houses, hundreds of restaurants and countless shops have crowded the small town, displacing trees and vegetation. Illegal felling of trees, horticultural and agricultural expansion, consistent slope cutting for road building and factory construction in a geo-morphologically sensitive terrain has catapulted the Nilgiris into

an era of landslides since 1978. The worst ever, about a 1,000 metres in length, 150 m wide, displaced 3 million tonnes of earth in 1993, followed by another in 1995 and then in 2002.

Unrestricted tourism, under whose banner most damaging practices are condoned, is the bane of the country. Busloads of tourists lumber up the hills practically everyday and by the dozens over the weekends and promote their own compulsions. The 'any-time pack and move' sort of sellers have crowded not only the town but have spread cancerously down the ghat road, lining it with their stalls. A landmark of the daily bus tour is a halt here, to disgorge the hordes. Both bus driver and passengers are impervious to the hazards and inconvenience of a traffic jam on either side.

An agonising sight is the lake, shrunk to the size of a large dirty pond, and fronted by an enormous orange bottle, straight out of *Alice in Wonderland* saying "Drink Fanta Orange", while the Botanical Gardens are reduced to a come-all-no-charge resthouse for plastic littering picnickers.

Careless disposal of lighted matchsticks or cigarette butts in forest areas have often set them alight and caused irreparable damage. Lack of stringent patrolling and strict punishment for disobeying forest regulations

perpetuates the general disregard of the environment among ignorant tourists.

The other stations in the Blue Mountains - Lovedale, Ketti Valley - have fared no better.

In the catchment area of Ootacamund, a decrease of 92.3% area under shola forest and a 100% decrease in grasslands has been recorded from 1949-92. The rich soil exposed after forest clearance erodes rapidly, preventing regeneration of these forests that are now termed as 'living fossil communities'.

The population of forest communities is increasing. The vast grasslands have disappeared under cultivation, so the cattle graze within the forest and decimate not only the forest floor, but trample on the delicate indigenous flora as well.

The Nilgiri Biosphere Reserve was created on September 1, 1986 — the first in India — to halt the further devastation of this floristically unique region. It encompasses 5,520 sq. km with a core area of 1240 sq. km and a buffer zone of 4,280 sq. km in the Western Ghats spanning across Tamil Nadu, Kerala and Karnataka.

At this point of time, it is a germplasm bank of various rare, threatened and endemic species of flora and fauna. Much of the microflora remains to be identified, but, to date, the reserve contains 3,300 species of flowering plants, 175 species of orchids, 100 species of mammals, 350 species of birds, 80 species of reptiles and amphibians, 300 species of butterflies and innumerable invertebrates.



KATIE DUBEY

Traffic clogs the roads and the rape of the hills continues without respite

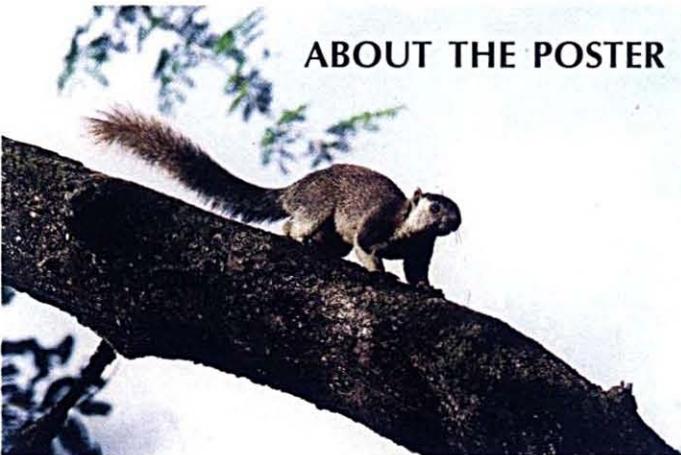
There are 60 species of endemic reptiles and several species of fish and amphibians, surviving precariously in protected sanctuaries and national parks.

The clock cannot be turned back as many nature lovers would love to do, but we can certainly guard with dedication and integrity what is left to us, and trust Mother Nature to repair the damage without further interference, so that future generations may savour the beauty of the land. ■

Katie Dubey is a freelance writer concerned about environmental issues. She has recently authored *BIRDS OF INDIA*, a coffee-table book.



ABOUT THE POSTER

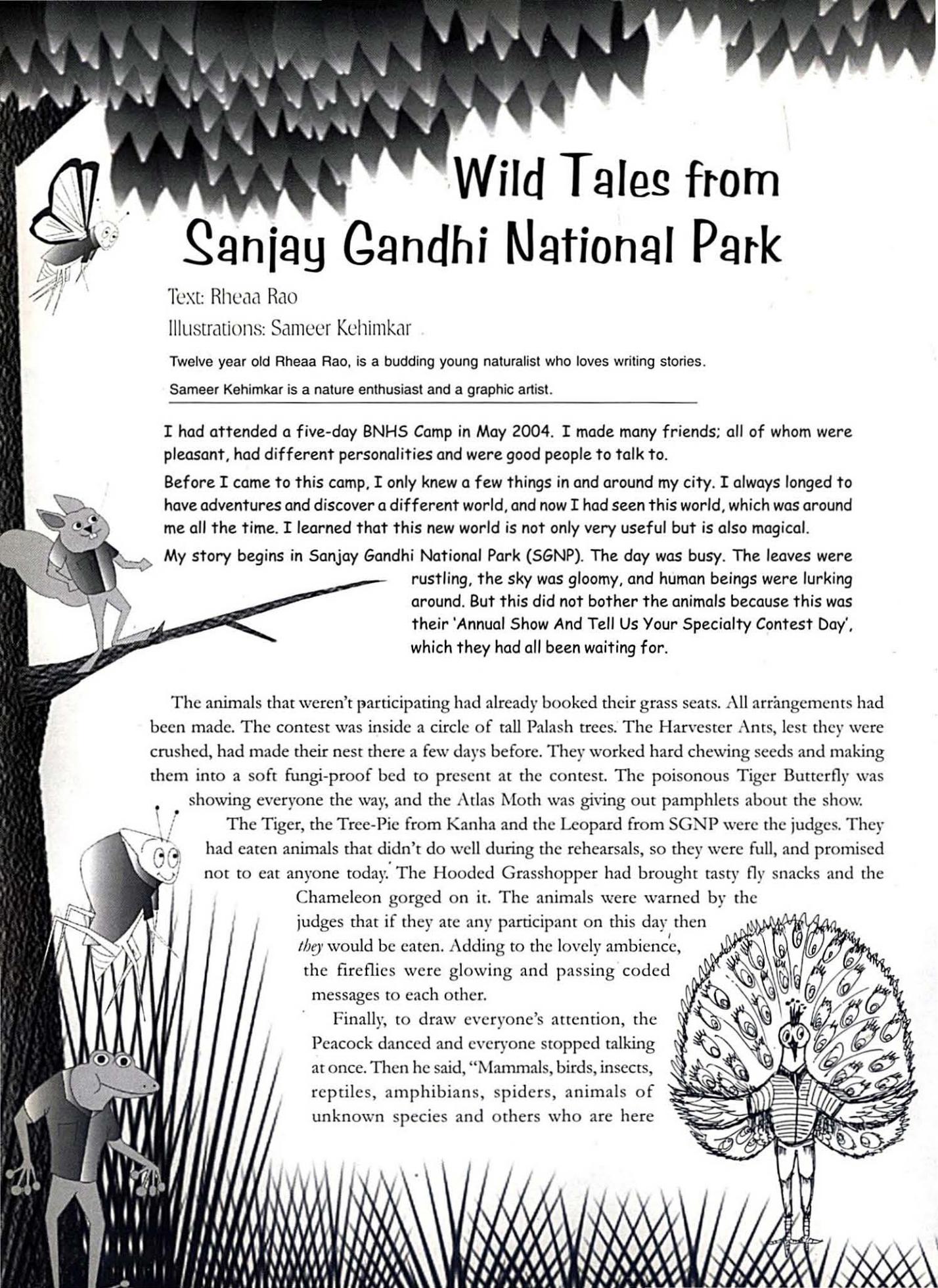


The Grizzled Giant Squirrel is the smallest of India's giant squirrels and is an endangered species. In India, it is seen only in Chinnar Wildlife Sanctuary, Kerala and Sri Villiputhur, Tamil Nadu. It is almost completely arboreal and is very agile. It can leap more than 6 m from tree to tree. During the breeding season, a large nest, similar in appearance to an eagle's nest, is constructed.

It occurs alone or in pairs and is highly territorial. It enjoys a diverse diet that includes fruits, nuts, insects, bird eggs and the bark of some trees. Thinning of the forest canopy as a result of wood cutting has made it a more vulnerable target to aerial predators.

Grizzled Giant Squirrel
Ratufa macroura





Wild Tales from Sanjay Gandhi National Park

Text: Rheaa Rao

Illustrations: Sameer Kehimkar

Twelve year old Rheaa Rao, is a budding young naturalist who loves writing stories.

Sameer Kehimkar is a nature enthusiast and a graphic artist.

I had attended a five-day BNHS Camp in May 2004. I made many friends; all of whom were pleasant, had different personalities and were good people to talk to.

Before I came to this camp, I only knew a few things in and around my city. I always longed to have adventures and discover a different world, and now I had seen this world, which was around me all the time. I learned that this new world is not only very useful but is also magical.

My story begins in Sanjay Gandhi National Park (SGNP). The day was busy. The leaves were rustling, the sky was gloomy, and human beings were lurking around. But this did not bother the animals because this was their 'Annual Show And Tell Us Your Specialty Contest Day', which they had all been waiting for.

The animals that weren't participating had already booked their grass seats. All arrangements had been made. The contest was inside a circle of tall Palash trees. The Harvester Ants, lest they were crushed, had made their nest there a few days before. They worked hard chewing seeds and making them into a soft fungi-proof bed to present at the contest. The poisonous Tiger Butterfly was showing everyone the way, and the Atlas Moth was giving out pamphlets about the show.

The Tiger, the Tree-Pie from Kanha and the Leopard from SGNP were the judges. They had eaten animals that didn't do well during the rehearsals, so they were full, and promised not to eat anyone today. The Hooded Grasshopper had brought tasty fly snacks and the Chameleon gorged on it. The animals were warned by the judges that if they ate any participant on this day then *they* would be eaten. Adding to the lovely ambience, the fireflies were glowing and passing coded messages to each other.

Finally, to draw everyone's attention, the Peacock danced and everyone stopped talking at once. Then he said, "Mammals, birds, insects, reptiles, amphibians, spiders, animals of unknown species and others who are here



today, welcome to our show. Each participant will tell us his/her specialities and how he/she helps the forest. One group has been selected per type or per species. The audience can satisfy their appetites with grape or vanilla juice, flies or leaves, which the Hooded Grasshopper is giving out for free.

“Three of the greatest animals will be the judges today. So clap for the luxurious Leopard, cheer for the magnificent Tiger, and hoot for the tiptoeing Tree-Pie.

“Lets get serious now, here are the rules. Each contestant or group has to come forward when his/her name is called and tell everyone his or her speciality. Any questions? Good. Now, we shall start with our anthem:

*When God first created this world, he first created nature,
But mannerless man started destroying it when he became mature
Now the world is filled with humans who have lost God's treasure.
Hunting, shooting, killing has become their pleasure.
We animals, even though we are sometimes violent,
Love to see our surroundings silent,
A forest is clean,
And animals are never mean to nature.
We have natural insecticides and garbage pickers,
Who reduce pollution in soil, air and water,
We know nature is useful,
For making furniture or delicious mousses.
We know that rats are a pain when they scuttle around your houses.
Don't kill nature,
Don't destroy our world,
For living and surviving for yourself, that's not what we should learn
If you destroy us, then we come into your world,
Take this anthem for real.*

“That was a challenging anthem wasn't it? Now lets open our show by cutting a fluff of dandelion and watching it fly... Let the competition begin!” said the Peacock.

“The Indian Roller,” called the Leopard who was beginning to wonder how much more nonsense was left until they could begin the show.

The Indian Roller stood up. “Hello ladies and judges, I am Rolly the Indian Roller. I am an extremely good flier and in the breeding season I roll in the air while I am flying, to impress a female. See,” Rolly flew in the air, rolled, flew again and then came down. Everyone clapped. They were stunned by his stunts.



"Marvellous," said the Tiger, "next, the Racket-tailed Drongo."

The Racket-tailed Drongo came forward, "Hello, hello, hello... I am Wacky the Racket-tailed Drongo. I serve as a watchman for all small birds. They build their little nests around my nest and when a big bird comes to harm them or my young ones, I irritate the big birds, snatch food from their beaks and force them to go away. I am called a Racket-tailed Drongo because I have a racket-like tail."

"Excellent description and interesting use," said the Tree-Pie, "now, may I call the unique Fiddler Crab, please!"

"My name is Uni, I have a small body, a very big claw to impress females and eight legs. I am useful because when I impress females and mate with them I increase the Fiddler Crab population. Thank you."

"Ha, ha. Good point Uni," said the Tiger.

Almost all the animals participated in the contest. The Harvester Ants displayed their unique nest, the Rufous Woodpecker boasted that it can live with ants, sharing its nest, the Fire Flies admitted that they give wrong codes during the mating season to other males

and eat them, the Hawk Moth said that it specialised in drinking nectar from the white Night Orchids at night, the Dabchick participated as the smallest duck, the Hitler Bug showed off its shell that has a face-like pattern, the Jewel Bugs paraded to display their shells which shine during the day when the sunrays fall on it and thus baffles the prey. The Kingfisher, Butterflies, Pelicans, Storks, Cobras, Cicadas, and others also came forward to tell everyone their speciality.

"Whew! That was a hoot!!" said the Peacock. "So many participants! And all of them did well. It was so difficult for the judges to decide who wins what. Anyway, please keep your fingers crossed because the great Leopard is giving out the prizes."

Everyone clapped loudly out of nervousness, awe and anxiety.

"Thank you," said the Leopard, "the first prize is for the best flier. That is Rolly of course."

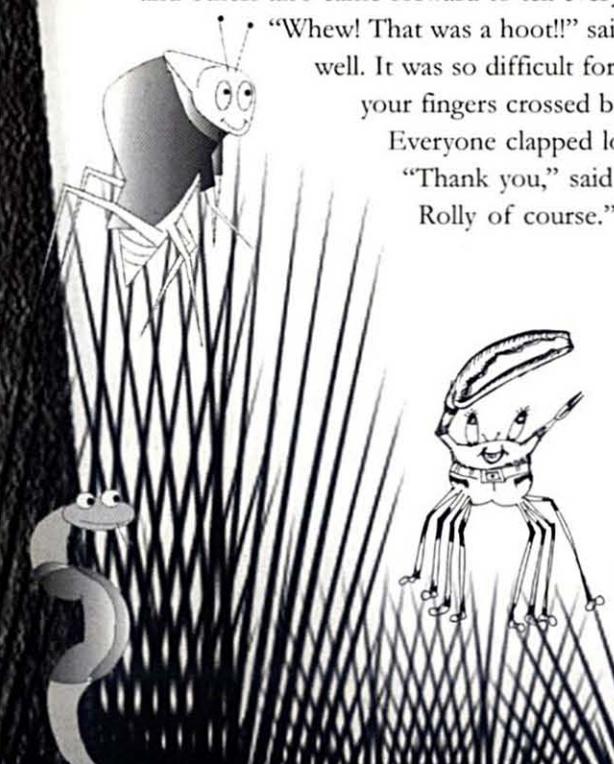
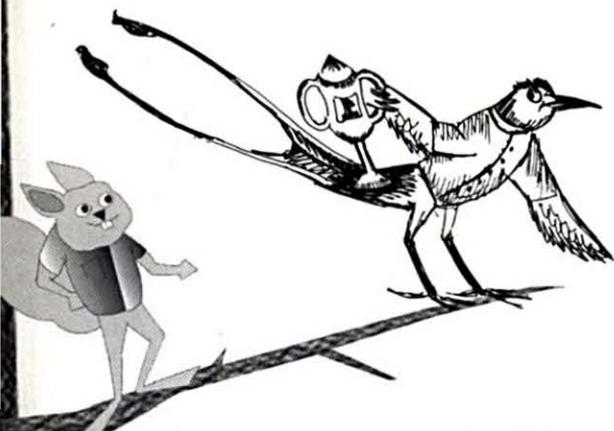
Rolly proudly came to receive his award.

"The second is for the best bird and it goes to Wacky the Drongo."

All the small birds clapped and cheered.

"The third prize is for the confusing insect, and that goes to the Jewel Bug"

"The fourth prize is for an unusual animal. That is the ...Yes! The Fiddler Crab."



“The fifth one is for the most secretive insect... the Fire Fly.”

“The next prize goes to the commentator, Mr. Peacock...”

And the prize ceremony went on until every participant and show organiser had at least one prize each.

“Before we depart and say goodbye, the honourable Tiger wants to tell everyone a few things,” said the Peacock.

“Thank you everyone, for making my visit so special. I just wanted to tell you that this great place you are standing or sitting on has everything the concrete jungle has — food, water, shelter, transport, tailors, slides, honey, architecture, codes, communication, entertainment, protection and everything here is environment friendly. Humans might fret when they see you. But if anyone of you become extinct or is threatened, then the lives of humans too will be threatened. When one link in the food chain breaks, all links connected to are also affected i.e. because we are dependent on each other. So, I conclude by saying that all of you have an important role to play, not only in running this forest, but also in running the world. One more thing, since I am going back today, I wanted to take some photos of everyone.”

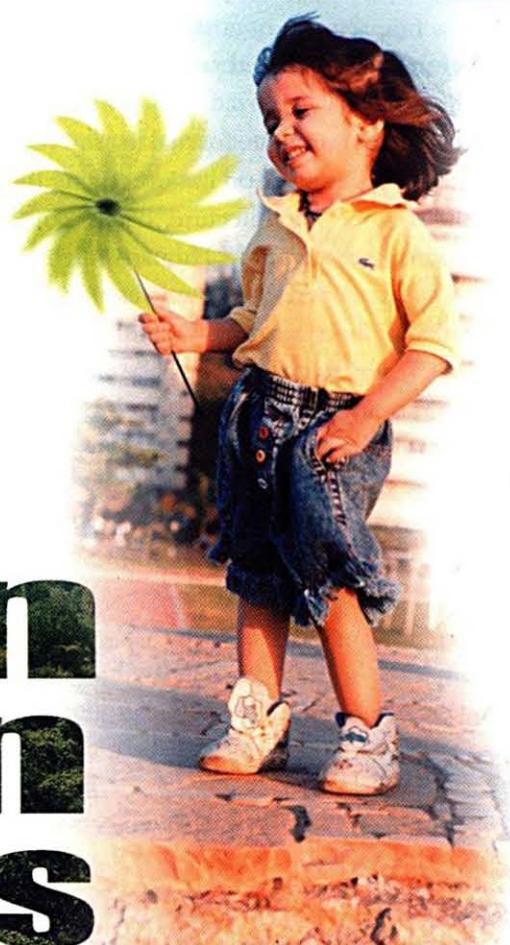


Dear BNHS,

I am writing this letter to you from the forest where I am examining things left behind after the show. Thank you for reading this story. But, the next time you go for a trail look at the animals from my view and see how magical they are. You can learn the anthem if you please and sing it when you are exploring wildlife. Then the animals will know that someone appreciates them. We should not forget when we destroy wildlife, we are also harming ourselves.

Rheaa Rao





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Infrasonic Earthquake Alarm 📧

The recent earthquake in Indonesia, which triggered a tsunami and destroyed a vast area of land, intensified efforts to find an early warning system to warn people of an earthquake.

The strange behaviour of animals during a tsunami indicates a possible explanation of their own warning system. Observations by naturalists show that some sub-terranean animals come out of their burrows just prior to an earthquake. Also, some terrestrial animals are uneasy and display unusual behaviour during this period. The tsunami killed several thousand people, but there was no report of casualty of wild animals. The only exception on the eastern coast of India was an ailing boar.

One of the most publicised reports from Sri Lanka was from tourists who were watching elephants in a National Park. Without any apparent provocation, the group of elephants raised their tails and fled. The tourists followed the fleeing elephants too. Later, the tsunami engulfed the area where the elephants had been standing. It has been proved that elephants communicate among themselves by producing infrasonic sounds, which man cannot hear.

From these observations, we can safely infer that when the pressure between faults beneath the earth's crust reaches breaking point, it



produces an infrasonic sound, which is picked up by animals. The behaviour of elephants in the national park is substantial indication. Evidence that might have supported this inference was lost as no autopsy was carried out on the boar, the only casualty on the eastern coast of India. It may have revealed that the boar's hearing was impaired at the time.

Another observation by villagers of K.Panjikuppam in Nagapattinam district of Tamil Nadu about the unusual behaviour of stray dogs, which was also recorded by a volunteer, supports this inference.

We need to hear the infrasonic frequencies, which the animals are capable of hearing. Sensitive equipments that can detect all infrasonic sounds should be placed deep into the crust of the earth. Recording, analysing and corroborating infrasonic sound waves may lead to development of an early warning system for earthquakes.

Dr. Raza H. Tehsin
Rajasthan



Drongos bathing in a lake! 📧

Nature Club Surat's Eco Farm has an artificial lake surrounded by many fruit and wild trees.

One day, we were at the lake at around 9 a.m. There were Black Drongos (*Dicrurus macrocerus*), Purple Sunbirds (*Nectarinia asiatica*), Common Myna (*Acridotheres tristis*), Red-whiskered Bulbul (*Pycnonotus jocosus*) and Red-vented Bulbul (*Pycnonotus cafer*) on Coral trees (*Erythrina indica*) enjoying nectar from the flowers. Also present, were the White-breasted Kingfisher (*Halcyon smyrnensis*), Small Bee-Eater (*Merops orientalis*), Indian Pond-Heron (*Ardeola grayii*), White-breasted Waterhen (*Amaurornis phoenicurus*) and Cormorants. The Bee-Eaters were taking off from a tree near the lake and gently dipping their beaks in the water while flying, we assumed they were drinking water.

Then Black Drongos came flying over the water and started dipping their beaks in water. After some time they came back and this time instead of just dipping their beaks they dipped their bellies repeatedly in the water while flying and then went back to their perch and started to shake off water. I watched three drongos indulge in this unusual behaviour, something I have not seen in 20 years since I started bird watching!

Snehal Patel
Surat



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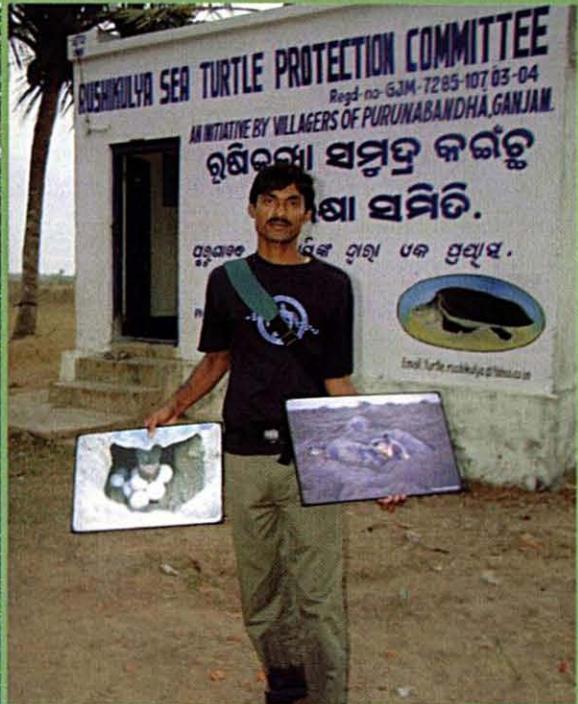
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Communities also conserve



Community conserved forest in Satara Tukum, Vidarbha, Maharashtra



Community Sea Turtle Conservation initiative at Rushikulya, Orissa

Text: Ashish Kothari and Neema Pathak

The authors are members of Kalpavriksh. In the next few issues, they will present more case studies of CCAs and review India's own legal record in supporting such initiatives.

Community initiatives at conserving ecosystems and species are a widespread but under-reported phenomenon in the world. There are literally thousands of such areas and species that are under community protection, but do not get the attention that officially protected areas receive.

Community Conserved Areas (CCAs) and initiatives are of diverse kinds:

- 🌳 Traditional protection to sacred groves, village tanks, Himalayan grasslands and individual species (such as Langur, Nilgai, Asian Elephant, *Ficus* species), is still widespread, even though considerably weakened by the forces of modernisation and commercialisation. Several sacred groves have preserved remnant populations of rare and endemic species that have been wiped out elsewhere.
- 🌳 In Nagaland, several dozen villages have reserved natural ecosystems as forest or wildlife reserves,

the latter dedicated exclusively or predominantly to wildlife conservation, such as the Khonoma Tragopan and Wildlife Sanctuary.

- 🌳 In Orissa and Andhra Pradesh, tens of thousands of forested hectares have been regenerated or protected by village communities on their own (including in many cases by setting up all-women forest protection teams) or through government supported programmes like joint forest management. The biodiversity value of these forests is considerable.
- 🌳 In Uttaranchal, some of the state's best forests are under the management of Van Panchayats set up several decades ago, in addition, villages such as Jardhargaon and Nahin Kalan, influenced by the Chipko movement, have regenerated and protected hundreds of hectares of forests and helped renew populations of Leopards, bears and other species.

Communities also conserve

🌳 In Bongaigaon district, Assam, the villagers of Shankar Ghola are protecting a few square kilometres of forest, which contain, amongst other things, a group of the highly threatened Golden Langur (*Trachypithecus geei*).

🌳 With help from the NGO – Tarun Bharat Sangh, several dozen villages in Alwar district, Rajasthan, have reconstructed the water regime, regenerated forests, and in one instance (Bhaonta-Kolyala), declared a “Public Wildlife Sanctuary”.

🌳 Youth club from the villages around the Loktak Lake, Manipur, have formed a Sangai Protection Forum to protect the greatly endangered Brown-antlered Deer or Sangai (*Cervus eldi*), which is found only in this wetland. They take part in the management of the Keibul Lamjao National Park, which forms the core of the Lake.



ASAD R. RAHMANI

Demoiselle Crane Conservation at Kheechan, Rajasthan

🌳 Villagers in Mendha and Lekha, Gadchiroli district, Maharashtra, have warded off a paper mill from destroying bamboo stocks, stopped the practice of lighting forest fires, and moved towards sustainable extraction of non-timber produce. Despite some continued hunting, the area harbours considerable wildlife, including the endangered central Indian race of the giant squirrel. The initiative has spread to several neighbouring villages. Also, in Vidarbha, many other villages like Satara Tukum and Saigata are conserving forests.

🌳 Many traditional practices of sustainable use have helped in wildlife conservation. For instance, pastoral communities in Ladakh, Rajasthan, Gujarat, and many other states, have strict rules regarding the amount and frequency of grazing on specified

grasslands. Ornithologists have recorded that these helped to maintain viable habitats for threatened species such as the Lesser Florican *Sypheotides indica*.

🌳 At Kheechan, a village in Rajasthan, villagers provide safety and food to the wintering Demoiselle Cranes (*Grus virgo*), which flock there in huge numbers of up to 10,000. Several lakh rupees are ungrudgingly spent by the people on this.

🌳 At Kokkare Bellur, Karnataka, and many other sites where large waterbirds are surviving on village tanks and private trees, villagers offer protection against hunting and untoward disturbance.

🌳 The Bishnois, a community in Rajasthan famous for its self-sacrificing defence of wildlife and trees continue strong traditions of conservation. In Punjab, land belonging to the Bishnoi has been declared the Abohar Sanctuary in recognition of its wildlife value.



ASHISH KOTHARI

Khonoma Tragopan Sanctuary, Nagaland

🌳 In Goa, Kerala and Orissa, important nesting sites for Sea Turtles such as Galjibag and Rushikulya beaches have been protected through the action of local fisherfolk, with help from NGOs and the Forest Department.

These initiatives are complemented by heroic struggles by communities across India, to save their ecosystems and resources from the destructive impact of ‘development’ projects. For instance, the National Fisherworkers’ Forum has staved off destructive trawling, fought for the implementation of the Coastal Regulation Zone, and assisted in movements against industrial aquaculture... all of it leading to the protection of marine wildlife. Fisherfolk in Chilika have helped the authorities stop destructive aquaculture. Several big projects, such as Bhopalpatnam-Ichhampalli

Ecological impact of Community-Based Conservation in South Asia¹

Type of initiative	Ecological impact	Examples ²
Traditional protection of sacred sites	Protection often total, of forests, grasslands, tanks	Several thousand in India and Bangladesh usually small in extent
Traditional protection of sacred species	Protection of key species	Blue Bull (Nilgai), Rhesus Macaque, and <i>Ficus</i> spp., all over India; Blackbuck and other species in Bishnoi community area, Rajasthan, India; <i>Ficus</i> spp., <i>Madhuca indica</i> , <i>Prosopis cineraria</i> , other trees in many countries
Traditional sustainable use practices for habitats	Conservation of habitats such as village tanks, pastures, and forests, and wildlife species resident in them; provision of corridors and connectivity between official protected areas	Kokkare Bellur, India; <i>bugiyals</i> (pastures) in Indian Himalayas; several marine sites with traditionally regulated fisheries, in India and elsewhere; Van Panchayats in Uttaranchal; "Safety forests" for water security in Mizoram
Traditional sustainable use practices for species	Conservation of wildlife species along with or independent of their habitats	Trees like <i>Madhuca indica</i> , harvested with great restraint in many parts of tribal India; hunting restraints on several species
Recent initiatives to revive degraded habitats and sustainably use them	Regeneration of forests, grasslands, and other ecosystems, and of species dependent on them	Several million hectares of forest lands in India (Joint Forest Management or community-initiated) and several hundred thousand hectares in Nepal and Bhutan (CF)
Recent initiatives to conserve and/or sustainably use relatively intact ecosystems	Conservation of important ecosystems and their resident species, reduction in threats to them	Annapurna Conservation Area, Nepal; Muthurajawela Marsh and Lagoon, Sri Lanka; Mendha (Lekha), India; Vasant Sena and eco-development teams at Periyar Tiger Reserve, India; community wildlife and forest reserves in Nagaland, India
Recent initiatives at sustainable (consumptive and non-consumptive) use of species	Revival of threatened populations of wildlife, e.g. Ibex; and reduction in over-exploitation, e.g. of plant and aquatic species	Hushey, Pakistan; Rekawa, Sri Lanka; Biligiri Rangaswamy Temple Sanctuary, India
Resistance to destructive commercial forces	Reduction or elimination of factors threatening ecosystems and species	Protection of Indian coastline and marine areas by traditional fisherfolk, from destructive fishing and aquaculture; several movements against big 'development' projects in several countries; movement against mining in Sariska Tiger Reserve, India

¹ Adapted from: WHERE COMMUNITIES CARE: COMMUNITY BASED WILDLIFE AND ECOSYSTEM MANAGEMENT IN SOUTH ASIA (2000). Kothari, A., N. Pathak and F. Vania, Kalpavriksh, Delhi/Pune and IIED, London.

² These are only some randomly selected examples.

(Maharashtra-Chhattisgarh), Bodhghat (Chhattisgarh), and Rathong Chu (Sikkim), which would have submerged valuable wildlife habitats, have been stalled by mass tribal movements. Many such movements have saved areas that are equal in size to, if not bigger than, official protected areas.

This is not to suggest that communities are responsible everywhere for conservation, indeed in many cases they have caused widespread destruc-

tion also! However, the point is that where they are taking positive initiatives, or have the potential of doing so, we need to recognise, encourage and support them. There is now global recognition for CCAs, such as in the Convention on Biological Diversity's programme of work in protected areas, which all countries are meant to implement. ■

For further information contact Ashish Kothari at natrails@vsnl.com

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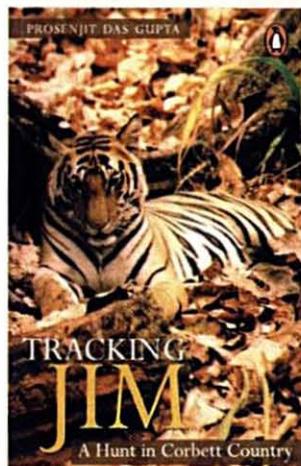
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Reviewed by Asad R. Rahmani

Can you write an objective book on your favourite hero without being obsequious? Perhaps not. Prosenjit Das Gupta is a self-proclaimed fan of Jim Corbett and he tells us this unabashedly in the beginning of the book. Fortunately his obsession with Jim Corbett, a



**Tracking Jim –
A Hunt in Corbett Country,**
by Prosenjit Das Gupta. 2005.
Penguin Books,
New Delhi.
Pp. 214, (20 x 13 cm).
Price: Rs. 275/-, Paperback.

hunter-conservationist, has not marred this fascinating book. This book makes interesting reading, especially if you are in tiger country; I was in Simlipal, when I read this book. After reading this book till late in the night, I dreamt of coming across a sleeping tigress, with three cubs. Such is the aura of this magnificent animal.

I am sure there is no naturalist in India who has not read Jim Corbett's books. Who can forget the suspense of a hunt in *MAN-EATERS OF KUMAON*, or tracking a marauding leopard in

MAN-EATING LEOPARD OF RUDRAPRAYAG. Jim Corbett was a raconteur *par excellence*. His fan Das Gupta has not let us down. By tracing Jim's movements and visiting houses where he had stayed, visiting where a particular man-eater was shot, reverently touching the surviving trees where Jim sat for long hours waiting for the cunning beast, Das Gupta has paid obeisance to his hero. I recommend this book to the legions of fans of Jim Corbett.

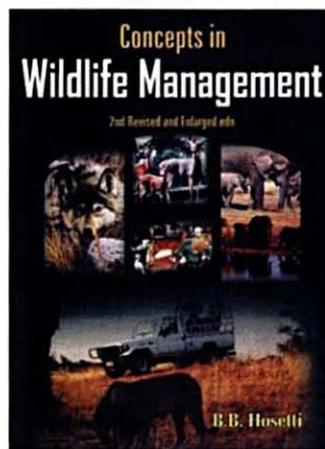
My only criticism of this book is that in order to elevate Jim Corbett to the status of a demi-god, Das has demonised the tiger and the leopard. Leaving aside the man-eaters, didn't Jim shoot many innocent tigers or leopards? Why is Jim Corbett or his fan silent about this? Das Gupta has also used now-discarded terms such as 'blood thirsty' man-eater. Was the tiger really 'blood-thirsty' or simply hungry to stalk human beings to satisfy his hunger? Aren't the hunters 'blood-thirsty' when they kill a tiger or a deer for 'sport'? And, the incident with Jim holding two eggs of a nightjar in the left hand and shooting a charging tiger from the right hand is too dramatic to be true. Even when I had read this account when I was a child I had some doubts about the veracity of this incident. We all know that hunters dramatise their fearlessness, strength, power and aim. Was Corbett above these human failings? I am sure Prosenjit Das Gupta will agree with me that Jim Corbett was after all a human being.

There are some technical mistakes in this book. For instance, *Euphorbia* (p. 85) is not a cactus, and the Kaleej Pheasant does not 'twitter' all day (p. 114). Kaleej has a raucous call, uttered early morning and evening during the breeding season. ☹

Reviewed by Asad R. Rahmani

I always try to find good points in any report, book or paper sent to me for peer review. However, in this book, I am afraid I have failed to find anything positive. The only positive point in Hosetti's book is that *CONCEPTS IN WILDLIFE MANAGEMENT* has proved that we urgently need good, well-written and well-edited books on Indian wildlife management. I am sorry to say that this book has failed to play that role.

Not only is the language pedantic, banal and the science bad, the book is also full of grammatical mistakes



**Concepts in Wildlife
Management**
2nd Revised and Enlarged
Edition, by B.B. Hosetti. 2005.
Daya Publishing House,
Delhi.
Pp. 322, (22.5 x 18.5 cm).
Price: Rs. 1200/-, Hardback.

and factual errors. In the first page, within two paragraphs consisting of 11 lines, I found at least five mistakes. For example, Hosetti mentions that 1200 genera of birds are found in India. There are more than 1200 *species* of birds in the Indian subcontinent, not *genera*. Another example, "Some

animals like (1) Black buck (2) The Golden Langoor, (3) Lion tailed macaque, and (4) Pigmy hog are unique to our country." Incidentally, Blackbuck (not Black buck) is found in Pakistan and Nepal, so it is not unique to India. Similarly, Golden Langur (not Langoor) is found in Bhutan, an independent country, so this is also not unique to India.

In the second paragraph, on the first page, the author says, "According to the Red Data Book about 600 species are threatened with extinction.", where, in the whole world or in India alone? Another gem: "India has already lost 20 animals and bird species since the beginning of the Christian era." Can he name these 20 species? I did not know that we have lost so many species. He also mentions, wrongly again, that "about 250 species of animals in India are considered as critically endangered species." Please note that all these howlers are on the first page. If I continue pointing out mistakes, this whole issue will be full of it. Talking of the Wildlife Protection Act, the author writes. "Under this act possession, trapping, shooting of wildlife alive or dead and serving their meat are watched by special staff, the Chief Wildlife Warden and other authorized forest officers." I am sure the wildlife authorities would be upset to read this statement. Are they supposed to just 'watch' and not take any action under the Wildlife Protection Act?

On page 2, the Chinkara or Indian Gazelle is spelled as 'gazele'. From page 6, I quote verbatim, "When Alien species are introduced into a new geographical area, it may be able to establish itself with seriously affecting the local population size or natives or it may decrease or even cause extinction of one or more species by praying on

them in the competition for food, or destroying their habitat."

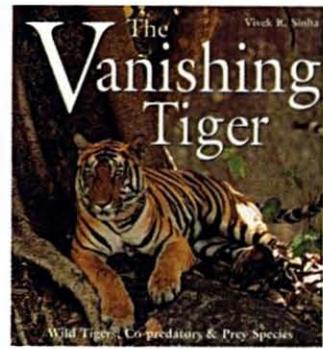
The 60 cm, 3-4 kg Leopard Cat is included in the category of 'Big Cats', along with the tiger, lion, leopard and snow leopard! How can this small cat be listed with the big cats?

On the blurb, it is claimed, "It will be one of the most comprehensive book (*sic*) available so far to the readers that deciphers the information about wildlife." Well, I am not going to recommend this book to any wildlifer or student. The book is supposed to be a revised and enlarged edition. Unless this book is completely revised, the manuscript peer-reviewed and professionally edited, the wildlife student, for whom this book is written, would not be able to 'decipher' what the author wants to say. ☹

Reviewed by Asad R. Rahmani

Vivek R. Sinha is a passionate person – passionate about tigers and other wildlife. A former bureaucrat, with a degree in aeronautical engineering, he retired as Secretary of the Defence Ministry. His passion has taken him and his wife, Arati, to almost all corners of India in pursuit of wildlife. He is a photographer *par excellence*, and specialises in tiger pictures.

The Vanishing Tiger showcases all the qualities of Sinha's talent. His pictures speak louder than words. From the brutal strength of an angry Gaur (p. 182) to the timidity of a Four-horned Antelope (p. 171) — his pictures convey them all. One can feel the worry of a fleeing herd of Barasingha (p. 216) or the serenity of a herd of Sambar and Cheetal peacefully drinking from an artificial waterhole in Sariska National Park (p. 225). As expected from such a book,



The Vanishing Tiger: Wild Tigers, Co-predators and Prey Species, by Vivek R. Sinha. 2003. Salamander Books Ltd., U.K. Pp. 256, (23.5 x 24 cm). Price: Not given, Hardback.

everything is written taking the tiger into perspective. It is a well-researched book, with lots of details about tiger biology and ecology – perhaps nothing, which is not already known, but still good to read. The picture captions give details about the time, place, and in some cases, even the name of the tiger. Such is the intimate knowledge of Sinha of his subject. It also shows how meticulously he has kept notes of his various field trips. He has also quoted papers and articles from the *Journal of the Bombay Natural History Society* — a treasure house of information on Indian natural history.

I particularly liked the final chapter "Photographing Tigers". Sinha gives many useful hints of what to do and what not to do while photographing tigers. According to him, Bandhavgarh, Kanha and Ranthambore, in that order, are the best areas for photographing tigers. But, he cautions that one may not see the tiger or may not get them in good light for days, so disappointment is part of a wildlife photographer's life. Even if for nothing else, if you want to learn more about tiger photography, buy this book. You will not be disappointed. ☹

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Over the years, the Tata Group has given some of India's brightest people the chance to achieve their full potential. The illustrious list of Tata Scholars includes Dr. K. R. Narayanan, former President of India, Dr. Raja Ramanna, former Director of BARC, Dr. R. A. Mashelkar, Director General CSIR, and Prof. V. V. Narlikar, India's pioneering relativity physicist. Furthermore, in 1944, we enabled Dr. Homi Bhabha to set up the Tata Institute of Fundamental Research, the laboratory for India's atomic programmes.

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BNHS — Green Governance Award 2005

FIROZ AHMED

We at BNHS believe that biodiversity conservation is a fundamental business issue. Sustainable development can be achieved by integrating social and environmental considerations with business decisions, which is why the BNHS initiated the Green Governance Programme in 2003. Its purpose is to create awareness among industry captains and government agencies for biodiversity conservation and to convince them to integrate the same within Corporate Social Responsibility (CSR).

As part of the BNHS – Green Governance Programme, we have constituted an annual ‘BNHS – Green Governance Award’ supported by ICICI Bank Ltd. This is the first award of its kind in the country, which focuses primarily on biodiversity conservation and habitat restoration. The two main objectives of the award are to promote biodiversity conservation and to recognise specific efforts made by corporates, financial institutions and government organisations to protect biodiversity outside their mandate.

There were three award categories: Conservation of Flora, Conservation of Fauna and, Conservation and Restoration of Habitat.

The following criteria were set up as eligibility for sending nominations for the awards

- Corporates/ Financial Institutes with assets of more

than Rs. 100 crore or investment turnover ratio of more than 1%.

- Government Organisations that have made extraordinary efforts to conserve biodiversity outside their mandate.

It was also decided that the participants should be able to demonstrate, in the last 5 years (since 2000), one or more of the following:

- Direct contributions towards improvement and / or restoration of habitats; the protection and conservation of native flora and / or fauna
- Contributions by Environmental Management Systems and creating implementation mechanism for biodiversity conservation
- Socio-economic contributions through Green Governance, which has resulted in the upliftment of the economic base of the impacted area, thereby reducing demand on environmental resources, which has resulted in conservation of biodiversity
- Ecologically sound policies and investments: Demonstrate examples of proactive leadership and investment model in making ecologically sensitive lending policies and integrating them into project financing
- Positive impact on environment due to eco-labeling of product/ Life cycle analysis.

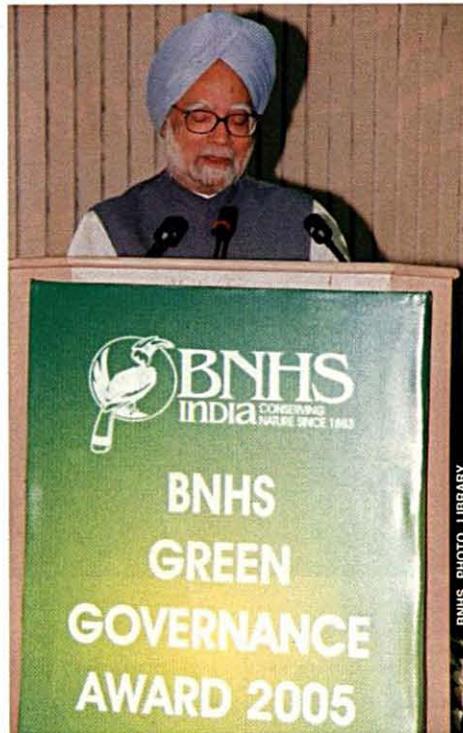
Desertification claims 5 million hectares worldwide annually; 95% of urban sewage in our country is discharged into surface waters without treatment. Approximately 5 billion tonnes of CO₂ is released into the atmosphere every year. Loss of biodiversity is a rapidly snowballing phenomenon. Rapid globalisation has added a new dimension to these challenges. It may well have created new opportunities for the pursuit of sustainable development – but its benefits and costs are unevenly distributed, with developing countries facing special difficulties.

BNHS – Green Governance Award 2005

On the occasion of the BNHS – Green Governance Award, 2005 Prime Minister Dr. Manmohan Singh, who presented the awards, commended the efforts of the awardees and reminded the gathering of our valuable Indian tradition of conservation.

“I am truly delighted to have the pleasure of presenting the Green Governance Award instituted by the Bombay Natural History Society. I believe the Green Governance Programme is a very important and much needed advocacy effort in our country. I am very happy to learn that many corporate entities, financial institutes and government agencies are associated with this noble effort to promote biodiversity conservation. I am also delighted to release the book reference guide to NATIONAL PARKS AND SANCTUARIES IN MAHARASHTRA published by the Bombay Natural History Society. I

believe the book provides us a comprehensive overview of management practices in the protected areas of Maharashtra. I hope that this book will be a valuable resource for those charged with managing our protected areas. I hope the Ministry of Environment and Forests will prepare such comprehensive documents for other states of our Union. The conservation of nature and protection of our environment is a collective task involving citizens at large, the government, the corporate sector and all other stake-holders in our complex and diverse society. I am particularly pleased to learn of the involvement of the corporate sector in this programme because we need much more social involvement of business in our country. Issues of the environment concern us all and, therefore, it is highly important that all these stake-holders should consider themselves involved and engaged in preserving and protecting our natural environment. Today, we face a situation where the degradation of our environment of land, water, air, essential life support systems of our planet — their degradation threatens the livelihood of millions and millions of poor farmers who live on the edges of subsistence. Our effort to eradicate poverty cannot acquire its true significance unless we ensure that the growth processes are truly sustainable. We cannot of course



On November 10, 2005, Dr. Manmohan Singh presented the first ever BNHS – Green Governance Awards

protect the environment by perpetuating the poverty of our people. And, therefore, sustainable development has to go beyond merely a buzz word. It has to be operationalised in concrete development strategies, which take into account imperatives of preserving and protecting our environment. I congratulate Shri Deshmukh and the Bombay Natural History Society for the efforts they have been making in fulfilment of this vital national objective. In developing countries we are often called upon to integrate environmental concerns into the processes of development itself. This is now an accepted orthodoxy but, as I said, much work needs to be undertaken to operationalise the concept of sustainable development. Our economic life exerts enormous pressure on the growth process at a

time when there is a clamour for jobs and new investment. Developing countries like India, therefore, will have to strive to avoid the development trajectory of the developed industrial economies, because these have been far too wasteful and harmful to the environment. We face a complex challenge where we need to constantly engage in trade-offs, including on occasion choosing options that may make our development processes excessively costly. It is important to create enlightened public opinion and promote informed debate on this issue. I always believed that the western styles of living of the modern consumerist societies of the West cannot be copied blindly in our country. Efforts to do so will ensure prosperity for few and misery for many. And, therefore, we have a challenge in devising growth paths developing options which can abolish poverty even without reaching the western standards of per capita income. And I, therefore, believe that is a challenge for all development promoters in our country, be they our scientists, be they our technologists, be they our captains of industry. And in this context, I am really concerned that India is yet to develop an environmental management paradigm of our own. Very often, Western opinions about environmental crisis dominate and influence the solutions offered. These may not necessarily be apposite to our conditions. Let me

recall that traditionally, our society has been less environmentally destructive. Few countries can match our traditional systems of water storage, local forest management, conservation and recycling used resources. But it is also a fact that these traditional sources of wisdom work best when populations are relatively static. When you superimpose upon the system a rapid population growth made possible by a sharp decline in death rate due to advances of medical sciences, traditional systems fail to deliver what they did so valiantly, so effectively under conditions of static population. When I look at our history, our culture of re-use is a very valuable protection against waste. It is true that these traditional notions and values are under threat both due to the processes of rapid population growth, rapid urbanisation and modernisation. Our collective strategy, therefore, needs to focus on developing indigenous responses, drawing upon our inherent traditions and using our greatest resource – our people's innate wisdom. At the present juncture, we have a massive opportunity for greening our country. Given the fact that 75% of water received is lost in run-off, we have huge opportunities for people-centered water conservation at the local level. In response to this need, our government is proposing a massive People's Water Conservation Mission. This will be a people's movement, led by panchayats, using the funds of the National Rural Employment Guarantee Scheme to harvest every drop of water that falls. This opportunity for local-level water augmentation has been unprecedented and through this we hope to revive our tradition of harvesting water. In a similar fashion, replacement of our lost forest cover can be approached through a people-centric movement. For instance, people living in the fringe areas of forests, who are mostly adivasis, face a major problem of securing a sustainable livelihood. A massive programme of greening degraded forests can be undertaken again using the National Rural Employment Guarantee Act. These are new and valuable opportunities and to make a success of these opportunities we need the support of all creative elements in our civil society. The on-going public debate on the Tribal Land Rights Bill, that we propose to introduce in Parliament, is a good example of the kind of discussion we need on how best to manage the dual imperatives of safeguarding people and safeguarding our natural habitat. We have people living in lands which were subsequently declared as forests and sanctuaries. These are very different from the Western concept of an "enclosure". The role of local populations in managing the environment has been historic. Even today forest fires are put out by forest officials with the help of Adivasi

inhabitants; not through helicopters dousing from above. Sadly, many of these very people do not have rights over their land. I would like to assure conservationists that the Tribal Land Rights Bill will seek only to record the rights of the people that have gone unrecorded. This should give them a sense of security and involve them in protecting the natural resource base. People who live in close proximity to our forest resources must therefore, become their protector. As the environmental historian Ramachandra Guha once said, "the Indian environmental debate cannot be a debate in the cities about what is happening in the countryside." The effort must be to ensure that people at local levels are involved in the conservation of water, forests and other life-support systems of our planet. This cannot and will not be done at the cost of our environment. I sincerely hope the Bombay Natural History Society will promote an informed, rational and humane dialogue on what we must do with regard to conservation and environmental and wildlife protection. It is equally important to focus on sensitising industry, to use new mechanisms to associate businesses as partners in the Clean Development Mechanism. I am happy to note that our country is taking a lead in this matter. The captains of our industry need to be sensitised to conservation to a greater extent than is the case right now. Institutions like the Bombay Natural History Society can play a major role in this matter. We will have to seriously think of introducing concepts such as green accounting and due diligence for environmentally-sound lending. Green rating of companies is increasingly a standard practice being followed in some parts of world. As environment consciousness increases, our enterprises should benefit by securing a better green profile for themselves. The Green Governance Programme is truly an inspiring movement and I applaud people from various walks of life, who have displayed commitment to the protection of our environment. It is very heart-warming to see the models demonstrated by today's awardees. Whether it is whale-shark conservation by Tata Chemicals Ltd, or mangrove conservation by Godrej and Boyce Mfg. Ltd or even flora conservation by the 8 Mountain Division of our Army, these examples provide a new path that others must also be happy to tread. I once again compliment the three awardees who have come forward to protect the flora, fauna and habitat of our country. I conclude by congratulating today's awardees. I sincerely hope that their efforts inspire all sections of society to contribute in full measure to this endeavour. If two leading corporate entities and a Division of the Indian Army can display such fine conservationist spirit, I think our nation's collective future is indeed bright."

Dr. Manmohan Singh released the two-volume reference guide – NATIONAL PARKS AND WILDLIFE SANCTUARIES IN MAHARASHTRA, authored by Pratibha Pande who was assisted by Neema Pathak. This guide is unique in several ways. Unlike earlier efforts on Himachal Pradesh, Andaman & Nicobar Islands and Karnataka, this reference guide provides data on legal status, biological conditions, biological wealth, administrative set up, status of research and monitoring with emphasis on human interference and lacunae in management practices in the State.

Conservation of Flora: 8 Mountain Division (Forever in operations)



Maj. Gen. V.K. Ahluwalia, YSM, VSM receiving the BNHS – Green Governance Award, 2005 for Conservation of Flora from Prime Minister Dr. Manmohan Singh

Operation Green Kargil of the 8 Mountain Division of the Indian Army was launched in April 2005. The main objective of the project was to have a tree cover to the extent of one-fifth of the landmass that the infantry holds. There were several challenges; the ruggedness and extreme climatic conditions of this 'Cold Mountain Desert' make it extremely difficult for other agencies and NGOs to undertake ecological improvement, particularly in the remote areas of the Kargil region. As the habitat is the second coldest inhabited area in the world with sub-zero temperatures, reaching up to -50°C for 6-7 months in a year, soil conditions are extremely poor. Moreover high altitude, low oxygen and low precipitation make afforestation efforts difficult. Anthropogenic pressures on the already negligible forest cover results in over exploitation for fire

wood and fodder. Over grazing by livestock and regular avalanches and land/snow slides mar their efforts.

Until now, a total of 33,864 saplings have been planted (of *Salix hastata*, *S. elegans*, *S. daphnoides*, *Populus balsamifera*, *Juniperus recurva*, *J. communis* and *J. macropoda*), out of which 13,205 saplings are along the main road and 20,659 saplings in general areas. The Project was financed in-house, by accruing savings, using combat manpower, imposing cuts on planned expenditure and effecting interior economy. Large patches ravaged during Operation Vijay 1999 have also been restored. A team of 29 officers and *jawans* have been trained by the Field Research Laboratory (FRL) to undertake plantations in a planned and scientific manner.

Besides plantation, 8 Mountain Division has done commendable work for the local population. Under project *Sadbhavana*, several initiatives were undertaken such as green houses, micro-hydel power project, solar and wind power generation. This has reduced the usage of fossil fuels considerably.

Raw material for their construction was provided and training to the locals in selecting plant species for growing during winters was given by 8 Mountain Division and Field Research Laboratory.

All the projects undertaken are long term and without any time limit. The projects will continue to move forward and increase their sphere of influence till the time a totally eco-friendly paradigm, as envisioned is achieved.

"For soldiers of the Indian Army, Kashmir and Ladakh hold a very unique place in our hearts, having spent some of the best parts of our professional lives in this corner of the world.

The project was undertaken with a scientific approach, involving the local communities along the main road from Dras, Kargil to Batalik, bordering the important villages of the region.

The projects undertaken will be reviewed annually to analyse its efficacy and relevance and also to identify fresh areas of focus so that the targets and the project can be revised."

— Maj. Gen. V.K. Ahluwalia, YSM, VSM
GOC 8 Mountain Division

Conservation of Fauna: Tata Chemicals Limited

Concerned about the apparent boom in Whale Shark fishing in India despite the law, a campaign was launched by the Wildlife Trust of India (WTI) in collaboration with Tata Chemicals Limited, which has its manufacturing unit in Gujarat. The objective of the campaign was to end Whale Shark trade in Gujarat. Gujarat has the longest coastline among all the states in India, making patrolling very difficult. Low awareness levels and the lack of conservation education in schools and colleges was a hindrance in designing an effective campaign. Moreover, the perception of the local community about the Whale Shark made the task at hand quite tricky. Barring a few researchers, the knowledge on the species was limited to the Whale Shark harvesters.

The campaigners used culture to promote conservation efforts by bringing the cultural beliefs of the population to the fore to give the campaign an emotional appeal as this would instill moral and ethical values in the conservation effort, thereby gaining tremendous public support. For this, Tata Chemicals Ltd. approached Morari Bapu – a religious leader known for his rendition of the Ramayana – to be the brand ambassador for the project.

In his address to the gatherings, Morari Bapu talked about 'Ahimsa' in the land of Mahatma Gandhi. He called the Whale Shark a visitor to Gujarat and that according to an age old saying 'Atithi devo bhava' i.e. Guest is God. But, what finally touched the emotional chord was when he likened the Whale Shark to a daughter coming back to her mother's house for childbirth. And so, instead of slaughtering her, the people of Gujarat must provide her with nourishment and protection.

Children were invited to participate in Whale Shark painting competitions especially in the coastal districts. This helped the children to understand the species better. The Whale Shark was showcased through posters at various fairs to generate awareness and local NGOs were

encouraged to participate in support of the cause. An inflatable, life-sized model of the Whale Shark was taken to villages along the coast to promote interest in the campaign.

Apart from these efforts a survey was conducted, to determine the awareness levels and perceptions of the local community about the Whale Shark so as to plan future programmes. Four towns along the coast - Porbandar, Dwarka, Okha and Diu, and Ahmedabad (island) have adopted the Whale Shark as the city mascot. Each of these towns conducted a public event in which all stakeholders pledged to save *V'wali*, the Whale Shark. The Coast Guard has pledged full support for enforcement of the ban on Whale Shark killing and provide information about sightings.

The project was showcased in Australia in the 'International Whale Shark Conference', May 2005, where over 120 delegates from 23 countries participated. The general consensus at the conference was that this model could be replicated in many third world countries where Whale Sharks are being hunted and where the people have strong traditional beliefs.

The population of Whale Sharks found off the coast of Gujarat is a significant one and its protection would play a critical role in international Whale Shark conservation.



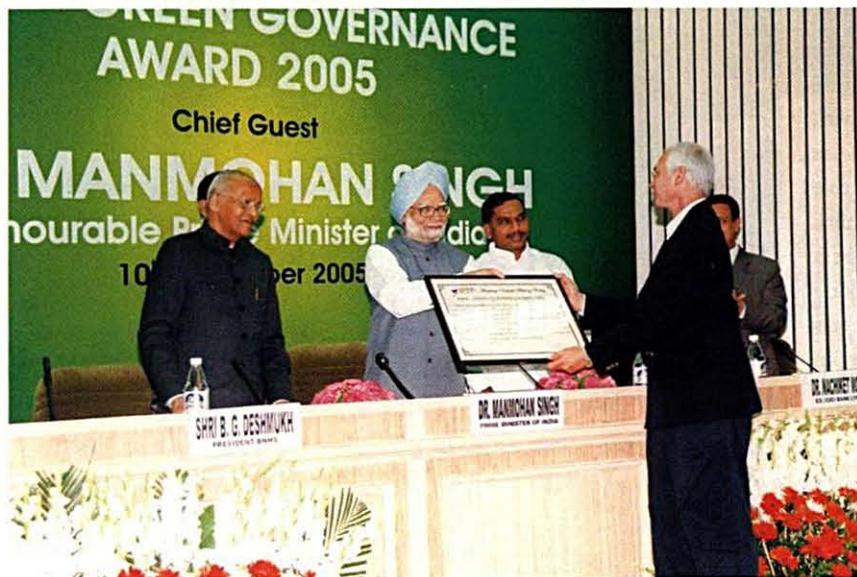
Mr. Prasad Menon receiving the BNHS – Green Governance Award, 2005 for Conservation of Fauna from Prime Minister Dr. Manmohan Singh

"Most people accuse the chemical industry of being the biggest polluter in the world and we are acutely conscious of that. So, our objective has been to be as sensitive as we can to nature. This calls for, primarily, reducing the pollution levels as far as possible; not just by the looking at the standards put down by the Government but going far beyond that... The award becomes a benchmark. And therefore, whatever we do... has to be even better."

— Prasad Menon
Managing Director, Tata Chemicals Limited

BNHS – Green Governance Award 2005

Conservation and Restoration of Habitat: Ms. Godrej & Boyce Mfg. Co. Ltd.



Mr. Jamshyd N. Godrej receiving the BNHS – Green Governance Award, 2005 for Conservation and Restoration of Habitat from Prime Minister Dr. Manmohan Singh

The Godrej business for over 106 years has always aimed at empowering the minds of Indians to help build a self-reliant nation, post-independence. The industrial garden township of Pirojshanagar was established as an excellent combination of man, machine and nature. Hundreds of varieties of trees were planted all along the newly constructed buildings. Great care was taken to ensure rich biological diversity but, at the same time, it was restricted to endemic species as far as possible. Owing to all these efforts, one can now see over 80 species of birds within the industrial zone alone! Large heronries and roosts of the Indian Flying Fox *Pteropus giganteus* have been found within the factory area. Regular sightings of mongoose, monitor lizards, snakes, etc., in the heart of the industrial area of Mumbai, confirm the ecological stability of the area.

The schools engage the children in alternative methods of teaching with environment awareness and population explosion being the most important arenas of

education. Attempts to produce “Ecofrig” despite an unfavourable market were a major initiative. In the same year, the Locks Division shifted from manual hand dipped plating operations to Transporter Automatic Plating (Cu, Ni, Cr) resulting in the reduction of chemical consumption by 25% and reduced effluent by 20%.

Under the Soonabai Pirojsha Godrej Foundation, about 1750 acres of land was declared ‘reserved’ under the mangrove project and experts like late Dr. Salim Ali, late Dr. A.K. Ganguly and Dr. H.N. Sethna were invited to advise the Environment Cell. The project was started when there was no legislation existing in the country

to protect mangroves. The programmes also included training senior Forest Officers in mangrove conservation across the nation. The local community was also involved to reduce the negative impacts on the ecosystem.

The Corporate HR department has made it a practice to introduce each of the management staff to the Mangrove Project. This is the first privately managed mangrove area in India and probably the first mangrove management project in the world to formally adopt ISO14001 standards for Environment Management System.

Recently, as a result of long persuasion from the Mangrove Project, the Maharashtra State has proposed the Thane Creek, which feeds water to this area, to be nominated as a Ramsar site to the Government of India. If the creek gets Ramsar status, there will be wide scope for community work, as over 10,000 people live in the surrounding area and are dependent on the wetland for fish, crabs, prawns and mussels. ■

“For the past many decades, we have been focusing on environmental education and, over the years, we have successfully oriented thousands of school, college and graduate students, across the country, through our Mangrove Awareness Programs. We offer researchers and naturalists every facility to conduct studies on this most important, but long neglected eco-system... we are engaged in the propagation of various species of orchids, medicinal plants and rare endemic species, amongst others.”

— Jamshyd N. Godrej
CMD, M/s. Godrej & Boyce Mfg. Co. Ltd.

Breakfast with butterflies—room for more



BNHS PHOTO LIBRARY

The young audience is enthralled as they are introduced to butterflies in the Sanjay Gandhi National Park, Mumbai

Beginning from October-November, people residing in Mumbai can meet at least a few of the 150 species of butterflies that call this city home. After an overwhelming response for the first 'Breakfast with Butterflies' BNHS held second helpings of 'Breakfast with Butterflies' on October 23, and 30, 2005 at its Conservation Education Centre (CEC) near Sanjay Gandhi National Park, Mumbai. A hearty breakfast was

preceded by a butterfly-watching trail, an illustrated talk on these winged wonders, a look at the various butterfly specimens at CEC, a butterfly quiz, followed by tips on gardening to attract butterflies, the making of fruit baits and a chat with butterfly experts from BNHS. Butterfly face-painting and butterfly craft activities were a big success with the young members. Participants received educational materials, souvenirs and prizes. ■

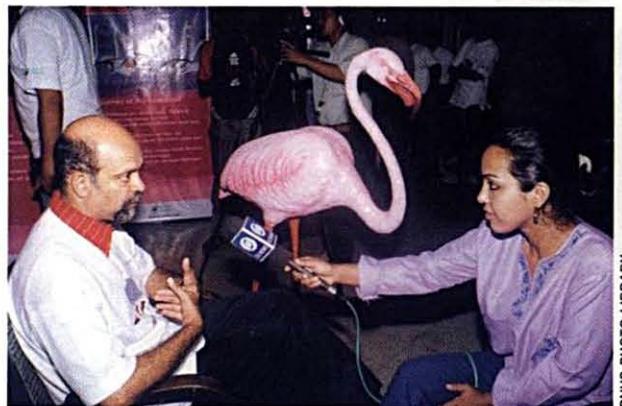
Flamingo Festival wins hearts

Mumbai is blessed because it has a city forest, mangroves and has successfully recycled a dumping ground into a Nature Park. Adding to this list, flamingos are making their magnificent presence felt in some parts of the city.

Flamingos were first reported in 1994. Almost 15-20,000 flamingos visit Mumbai every year from October-November up to May-June. Out of the five species of Flamingos in the world, two species — the Greater and Lesser Flamingos visit Mumbai.

To celebrate the arrival of these beautiful birds in Mumbai, and to promote awareness about the need for scientific research and surveys about Flamingos, BNHS has been organising various programmes such as the Flamingo Watch for its members. Last year, the Society received an overwhelming response for the Flamingo Watch. This year, the Society organised the Flamingo Festival from October 3 to October 8, 2005

during Wildlife Week. The Society put up an exhibition, screened films related to Flamingos and also organised special activities for children. This event was conducted at the Hornbill House, Mumbai. ■



BNHS PHOTO LIBRARY

Sunjoy Monga, an avid naturalist shares his knowledge with mediapersons during the Flamingo Festival

Divine nature



BNHS PHOTO LIBRARY

Eco-friendly Ganpati idols made of Shaadu clay, newspaper pulp and vegetable dye

On August 28, 2005, the BNHS — Nature Information Centre, Sanjay Gandhi National Park, invited participation from families and the Rotary Club of Panvel to spread awareness of the environmental impact of celebrations during Ganesh Chaturthi. The programme included a demonstration of making an eco-friendly Ganesh by the Sadguru Shri Anirudh Upasana Trust. The idols were made of

Shaadu clay and newspaper pulp, and were painted with vegetable dyes. The aim was to involve as many people as possible in the celebration of Ganesh Chaturthi in an eco-friendly manner.

Around 50 families participated in the programme. A walk to Dahisar Lake where the Ganesh idols are usually immersed was organised and the participants were given information on the diversity of flora and fauna in the water body. The pH of the water was tested which was found to be 7.0, this is neutral pH indicating that there was no pollution in the water body, although the situation could change after the immersion of idols in this water body. A slide show was used to display the impact of environmentally unfriendly practices. The participants were advised to always put *nirmalya* (offerings to God, including flowers) in the Nirmalya Kund, which can be collected and turned into fertiliser/manure by vermicomposting, and to stop using thermocol and plastic in decorations. ■

Run, run, run

The BNHS believes that sustainable development can be achieved by integrating social and environmental considerations. BNHS has been working with various organisations and institutions for the cause of conservation. British Gas (BG) India and the Environment and Ecology Cell of the Indian Army, are some of the partners for environmental research, conservation and education.

BNHS wanted to spread the message that 'Environmental Protection is nothing but patriotism in action' and 'Save Nature, Secure the Future' through the Hutch Delhi International Half Marathon. With the help of funds from BG India, a total of 178 people, including Army officers and their family members, took part in the marathon, on October 16, 2005, in Delhi, to demonstrate their support of the BNHS.

BG India is committed to the education and awareness of environmental protection. The Mumbai based BNHS-Nature Information Centre at Sanjay Gandhi National Park is a joint effort of BNHS, BG India and the Department of Forest, Government of Maharashtra.

The Society has been working with the Indian Army since 1971 and through its 'Green Governance



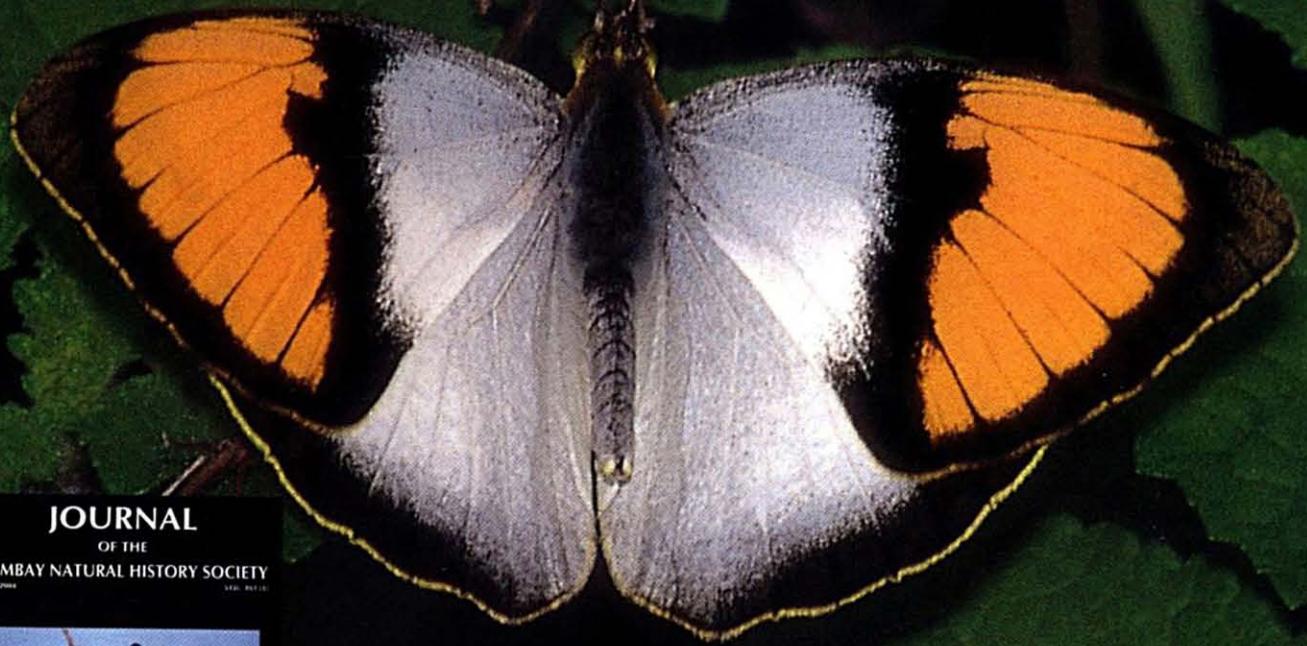
LT. COL. P. CHANDRA

Mission: Environmental protection. Army officers and their family members come to the aid of conservation

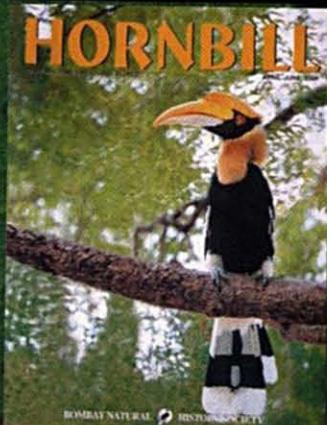
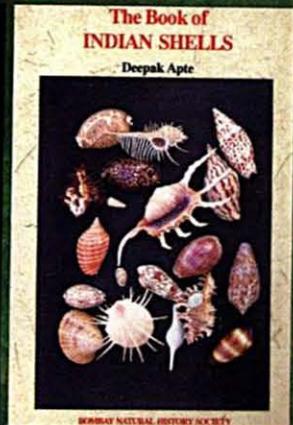
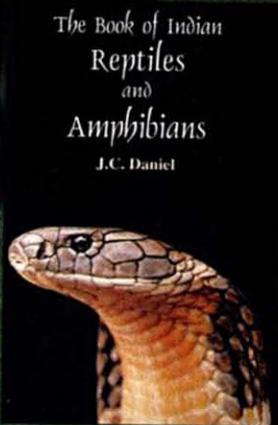
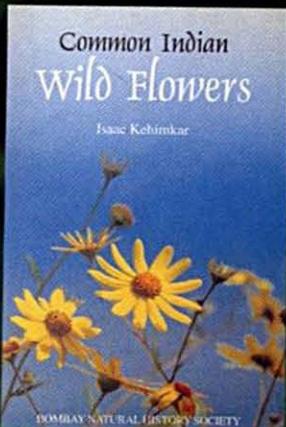
Programme' has established the 'BNHS Armed Forces Cell', for efficient coordination with the Indian Army. The objective of this cell is to contribute to the Army Training Manual on issues pertaining to the environment, incorporate ecological tasks in the annual Training Directives, establish conservation centres at all HQ Division Upwards, conduct periodic nature conservation workshops for all HQ divisions and develop all military areas, not in use, as 'biosphere reserves'. ■

BNHS PUBLICATIONS

A TRADITION OF EXCELLENCE



JOURNAL
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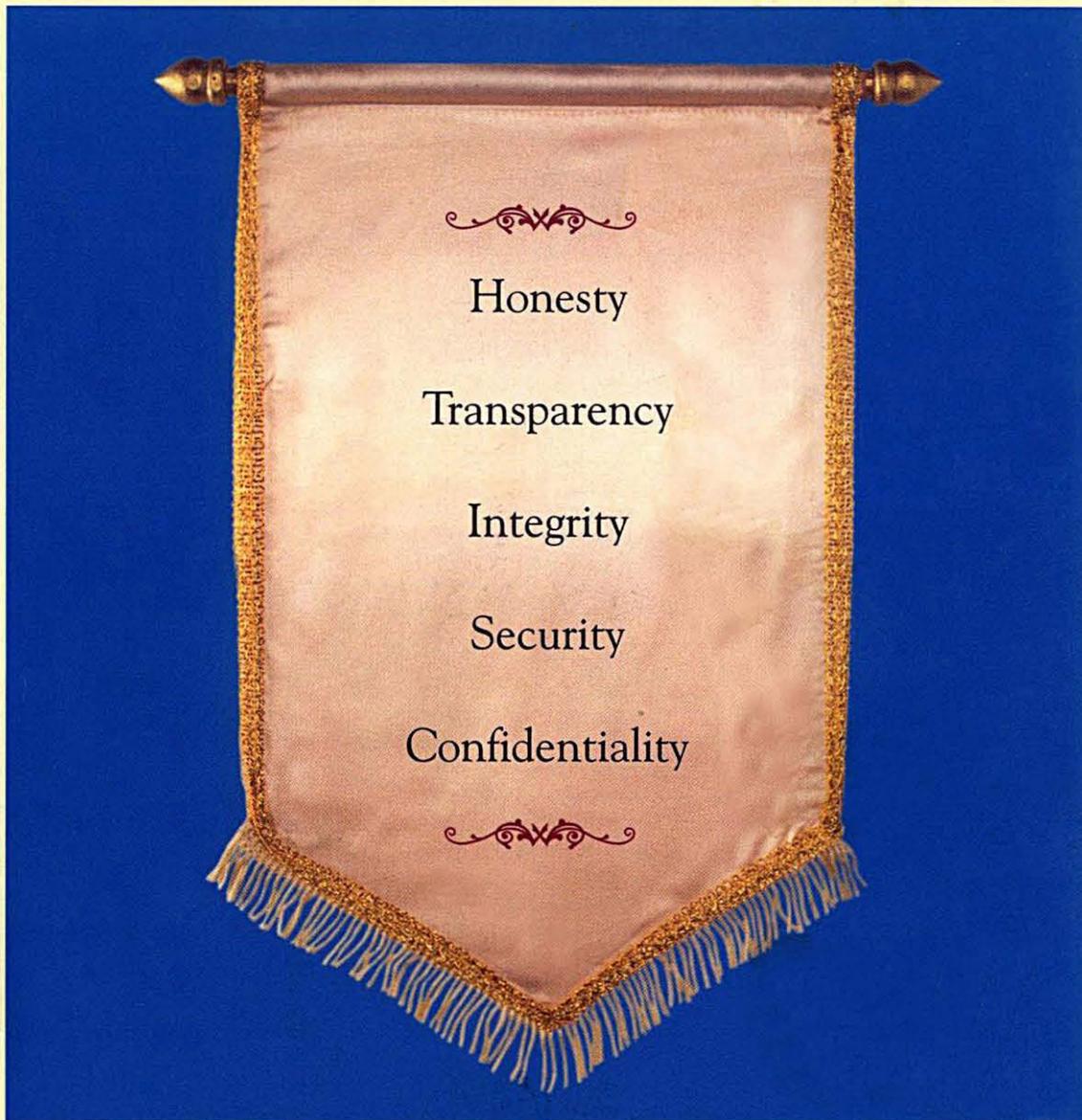


The Book of Indian Birds ...
The Book of Indian Animals ...
The Book of Indian Trees ...

Forthcoming Title:
The Book of Indian Butterflies

For details visit: www.bnhs.org





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