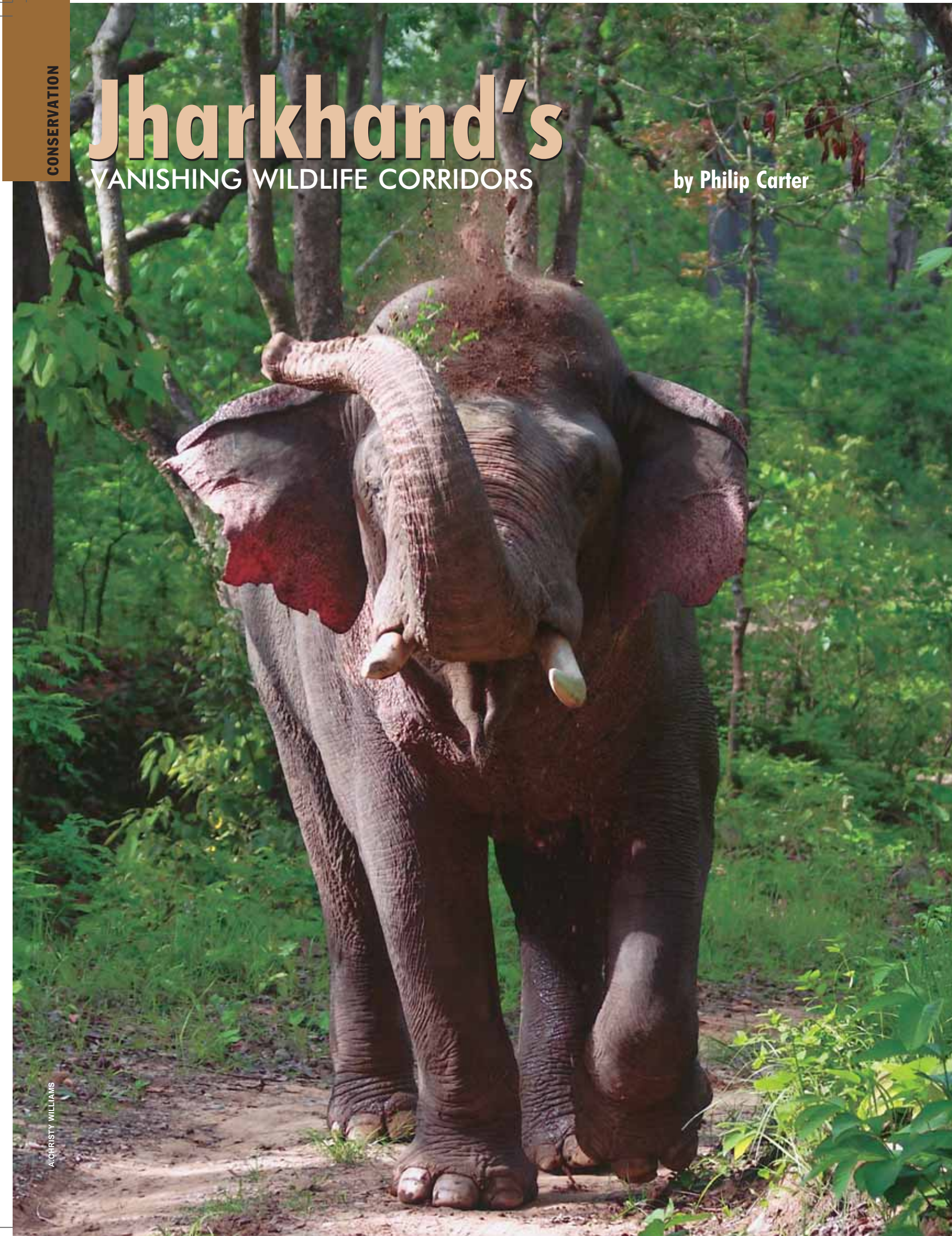


Jharkhand's

VANISHING WILDLIFE CORRIDORS

by Philip Carter



CHRISTY WILLIAMS

I first came to what is now the state of Jharkhand, then south Bihar, in the summer of 1997, to investigate a report by the environmental and cultural activist Bulu Imam that wildlife corridors important for tigers and elephants were under threat by numerous opencast coal mines. As I travelled from Hazaribagh through the upper Damodar river valley and on to the Palamau Tiger Reserve with Imam, I was pleasantly surprised by the sheer vastness of the forests that still existed, and also by the rich, agricultural lands worked on by the *adivasis*, the tribal people indigenous to the region, with black plough buffaloes as it had been for thousands of years. As I realised how much of the upper Damodar valley had been slated for mining, the scale of the possible impact hit home. *Adivasi* villages would be cleared, and both agricultural land and wildlife corridors destroyed, setting the scene for a humanitarian and ecological crisis of staggering proportions.

After publishing an article on Hazaribagh in *Sanctuary* in October 1997, I continued to work with Imam and with *Sanctuary* on the international campaign that subsequently developed. In 2000, I made the first of two return visits to the region, finding to my dismay that it was no longer wise to travel into the coal mining areas. I heard disturbing stories of journalists who had been beaten up and their equipment taken, apparently by security goons hired by coal companies. Deciding that discretion was the better part of valour, I did not attempt to travel again through the area.

A TRANSITORY TIGER?

In 1997, the concept of wildlife corridors was still an alien notion to those who carried out Environmental Impact Assessments sponsored by the World Bank. Large areas of pristine agricultural land and jungles of *sal* indigenous to the region were

Elephants are known for their extraordinary migrations in search of food. Destruction of ancient migratory corridors (see map) by illegal coal mining financed by the World Bank has left the pachyderms stranded and resulted in increased human-animal conflict.

“If you acknowledge that there is a tiger, then you are responsible for its protection also. If you don’t acknowledge, the tiger doesn’t exist on record and if it is missing or something unpleasant happens to it, you are not held accountable. That’s why it was neglected,” S.E.H. Kazi, Divisional Forest Officer (2005)

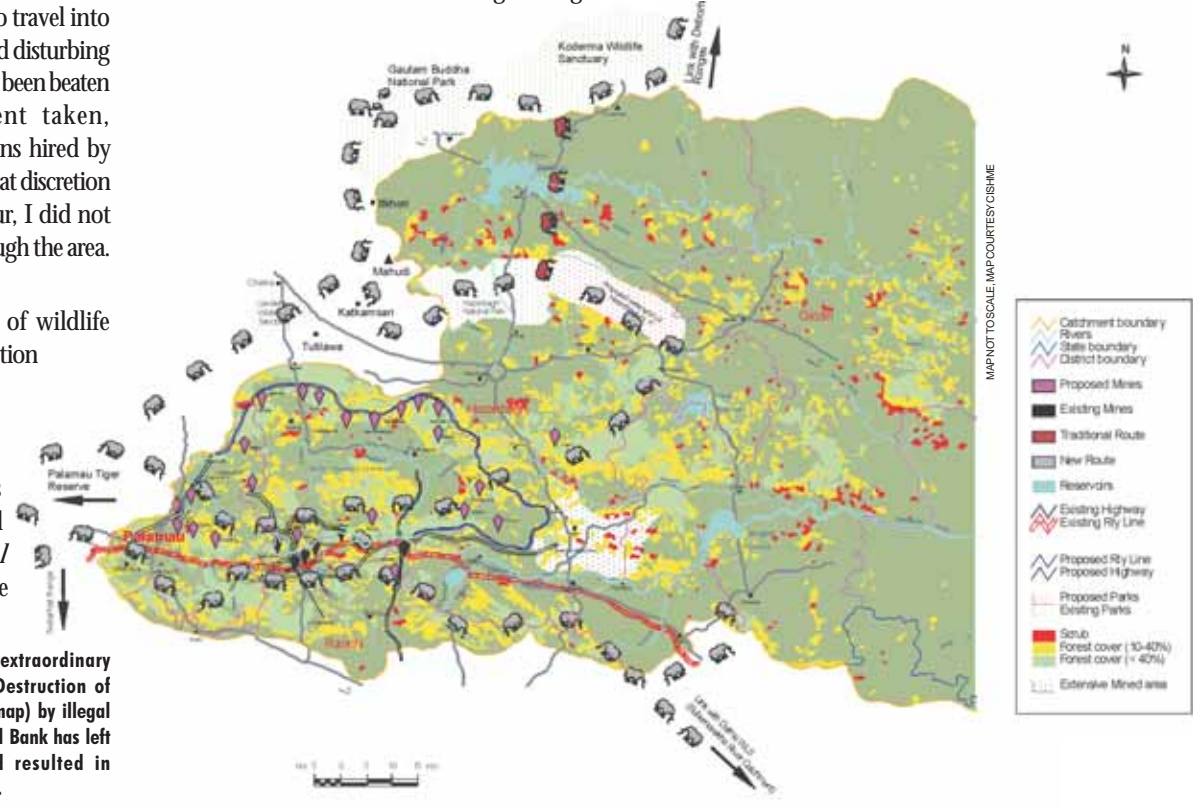
dismissed as degraded forest without any large fauna. However, just a few days on the road interviewing villagers had revealed a different picture. Even the tiger, the very symbol of India’s wild heritage, was probably present and surviving by preying on cattle. *Santhal adivasi* villagers in the village of Jawardih about 30 km. to the east of Hazaribagh had even seen a tiger cub in 1997.

Fast-forward nine years to September 2006. I returned to what was now the newly-formed “Forest State” of Jharkhand. My first stop was Jawardih again, where I interviewed 70-year-old Lumbu, a former professional tracker. He informed me that villagers had seen tracks of a large male tiger over the last few weeks. A plough bullock had recently been killed in the forests of the nearby Hazaribagh escarpment, which still connects the Hazaribagh Wildlife Sanctuary to the west.

In 2005, S.E.H. Kazmi, the then Divisional Forest Officer of Hazaribagh

District had reported a large, male tiger (possibly the same seen by villagers in Jawardih) in the Hazaribagh Wildlife Sanctuary. According to him, this was the first time that a tiger had been identified here in more than a decade. It had not been easy to get official confirmation of the tiger’s presence and they had initially dismissed it as either a mistaken identification or a false story planted by villagers to get cattle compensation. Kazmi himself had been skeptical and had assumed it was a leopard. The photograph of the 14 cm. pugmark, however, convinced him and he approached superiors to get an official acknowledgement.

“The point is, because of the tiger crisis or because of the issues involved, the authorities knew it was a transitory tiger, and that maybe after some time it would go back somewhere,” said Kazmi. He added that if officials were to acknowledge the presence of the tiger in their records, then after the



Jharkhand's Vanishing Wildlife Corridors



With rising human population, forests have been converted into agricultural fields and pastures (above). Additionally, cattle grazing and the attendant weed invasions have reduced fodder availability for wild herbivores. When coal from illegal mining is burned to make coke (top), agricultural land is threatened as well. This is a trend that can only worsen with the passage of the new *Forest Rights Act*, which will neither benefit tribal people, nor wildlife.

tiger had left the area, there would be pressure on them to explain what had happened to it. "If you acknowledge that there is a tiger, then you are responsible for its protection also. If you don't acknowledge it, the tiger doesn't exist on record and if it is missing

or something unpleasant happens to it, you are not held accountable. That's why it was neglected," explains Kazmi. The tiger was finally recognised by the Forest Department after a scat was collected and sent to the Wildlife Institute of India in Dehradun for DNA

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analysis. Kazmi also confirmed the continuing presence of the tiger when I interviewed him in October 2006.

The corridor being utilised by the tiger had been studied by the Wildlife Trust of India (WTI) in 2003, in cooperation with the Hazaribagh chapter of the Indian Trust for Art and Cultural Heritage (INTACH), of which Bulu Imam is Regional Convener. His son, Justin Imam who carried out the study, had travelled through the lush countryside on a motorbike to locations where human-elephant conflicts had occurred. Through this method, it was possible to build up a picture on a map of the route used by the elephants. This was not an easy job and he was even questioned at times by suspicious members of Jharkhand's grinding Naxalite insurgency, which has been fuelled in recent times by a large number of villagers, usually *adivasis*, displaced by coal mining.

The corridor Justin had studied crosses a wide swathe of northern Jharkhand, from the Palamau Tiger Reserve in the west through the districts of Latehar and Chatra, before connecting with the forests of Hazaribagh and Koderma. Other corridors to the south of this which connected to Palamau through the upper Damodar watershed have become highly stressed, and perhaps broken, due to coal mining-related activity. Justin considered the aggressive behaviour of the elephants as evidence of the deteriorating condition of the forests. In the introduction to his study he wrote:

"We have to ask ourselves why are these few or lone tuskers turning aggressive and destructive? Do we need to demarcate certain protected forests and common forests as vital corridors connecting food bases for elephant movements, or should we tackle the issue by catching the bull by the horns? To my comprehension, these elephants are turning hostile because there is not enough food in the scarce forests. The Forest Department is to blame for cutting vital forest cover, which served as corridors. These forests, termed as secondary growth are facing coppice cutting to earn revenue

through the Social Forestry Division in the state's kitty bag."

UNRAVELLING ELEPHANT MIGRATION ROUTES

I travelled to the state capital of Ranchi to raise these issues with the Jharkhand Forest Department. Ranchi seemed bigger and busier than I remembered in 1997, with an atmosphere reminiscent of a "boom town" in America's old "Wild West" when gold had been found. Indeed, this part of the subcontinent has been called India's "Wild East" with mining companies clamouring to get their hands on the natural riches beneath the state's soil. Lakshmi Mittal, whose steel empire is the world's biggest, completed a nine-billion-dollar deal last year that will give him access to the high-quality ore mines in Jharkhand. Smart new hotels are springing up to serve business travellers. On the main highway leading into Ranchi from the north, I saw another side of this economic bonanza. Every day, hundreds of men, mostly *adivasis* displaced by mining, push bicycles laden with bags of coal into town for sale. These "coal-pushers" sell coal obtained by what the government terms "illegal mining". Entire families of dispossessed *adivasis* go underground in disused coal mines, risking frequent roof collapses, fires and police harassment to get this coal.

I visited the Jharkhand Forest Department in the ornate colonial period building that it uses as its headquarters, and found that it has been taking some positive action on wildlife corridors. Dinesh Kumar, the Divisional Forest Officer for Ranchi told me about a recently-begun project to rehabilitate a corridor connecting the Dalma Elephant Sanctuary in the southeast of the state. Elephants migrating from the Dalma Sanctuary to West Bengal have been responsible for deaths of a number of villagers. The corridor rehabilitation project was started in 2005 to encourage elephants to stay in their normal migration path while simultaneously protecting villages.

According to Kumar, about 50 to 55 of the 92-strong Dalma elephant herd migrate to West Bengal every year, while the others are resident in the

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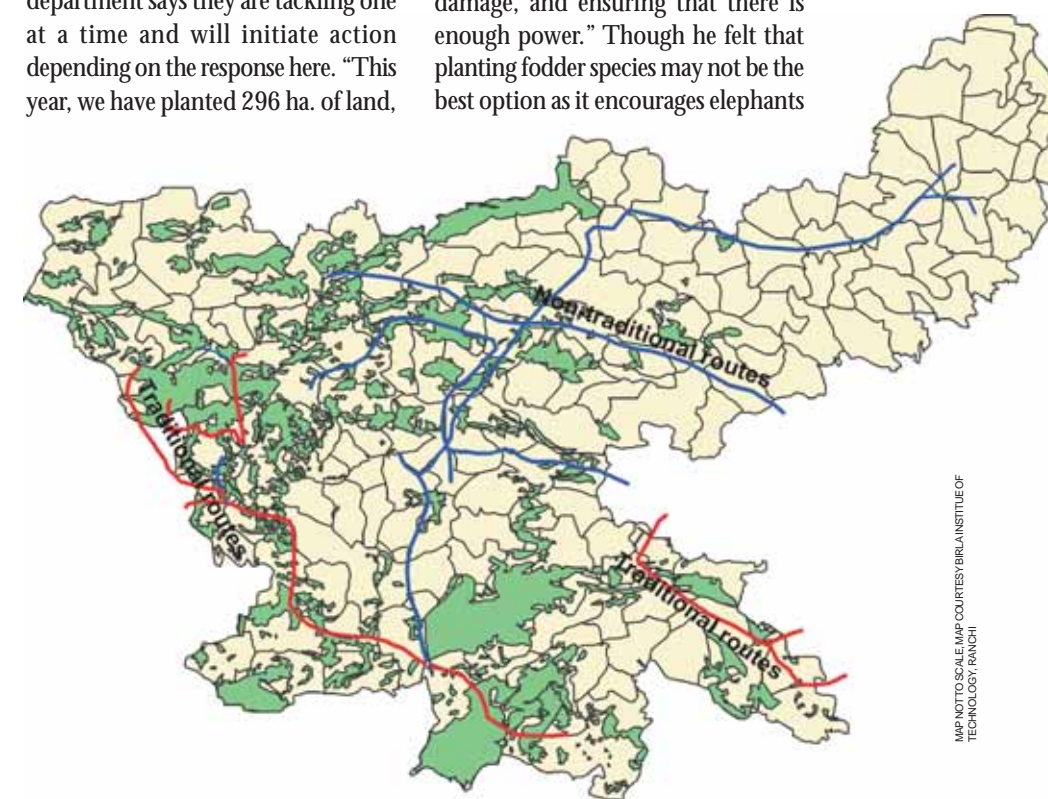
Lumbu, a 70-year-old Santhal *adivasi* and professional tracker from Jawardih confirmed that villagers had seen tracks of a large, male tiger in the forests of the Hazaribagh escarpment. Getting official confirmation of this transitory tiger, however, proved to be extremely difficult.

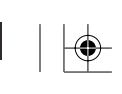
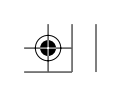
sanctuary all year round. The migrating elephants have wreaked havoc over the years, straying into rice paddy fields in search of fodder, and occasionally damaging houses and injuring or killing people. "In the migration route, there are some areas of degraded forest, which we have tried to rejuvenate with plantations of fodder species, mostly bamboo and by completely avoiding exotic species," says Kumar.

This is, however, just one of the five migration routes used by the Dalma elephants. The forest department says they are tackling one at a time and will initiate action depending on the response here. "This year, we have planted 296 ha. of land,

which is spread over the corridor from Dalma to Bandwan in West Bengal," said Kumar. In addition to enriching the corridor to encourage elephants not to stray towards villages, protective measures have also been taken. "We have also erected 42 km. of solar-powered fencing in addition to the 25 km. installed last year, and by that we have protected six or seven villages from the elephants," he added. The fencing is right around the villages, with gates where people and livestock can pass. These steps have reduced human-elephant conflict considerably along this corridor and villagers have expressed appreciation as well.

Solar-powered fencing also won the stamp of approval from Dr. P.S. Easa of the Wildlife Trust of India (WTI), which recently published *Right of Passage*, a book detailing elephant corridors across India. Dr. Easa says, "It is definitely a good move. Solar-powered fencing is considered to be one of the best options for conflict mitigation provided it is maintained periodically by cutting the vegetation touching the wires and repairing any damage, and ensuring that there is enough power." Though he felt that planting fodder species may not be the best option as it encourages elephants





to stay in the corridor and provides more opportunity for conflict with humans, he commended the department on using natural food species instead of exotic grasses or other types of plants.

Bulu Imam, once also a professional hunter of tigers and rogue elephants, agreed that encouraging elephants to stay in a corridor could lead to problems. He suggested that the north Jharkhand corridor in which the tiger has returned be considered a "tiger corridor" rather than an "elephant corridor" as whenever elephants have been forced to use it, there have been severe conflicts. "In February 1973, a herd of four elephants began killing people in this northern corridor and I was called on to hunt them down, and I completed this unpleasant job in October of the same year. The elephants had killed several hundred people by that time." The elephants were breaking into houses to get at food stored inside. He pointed out that while elephants generally migrate in order to find food, tigers generally migrate for mating, indicating that there can be differences between the terrain of tiger and elephant corridors.

WHAT DOES THE FUTURE HOLD?

On the quiet campus of the Birla Institute of Technology at Mesra just outside Ranchi, I was shown a project attempting to define and rehabilitate wildlife corridors. Richa Sharma, a physicist by training, is researching what may prove to be a vital link between the method of the WTI study of identifying corridors by human-elephant conflicts, and the practical expertise of the Forest Department. In a room filled with computers, she explained how techniques of Geographical Information Systems (GIS) can be combined with satellite imagery and on-the-ground research, to show the new areas elephants are wandering into as their traditional travel routes become damaged. It is then possible to identify a potential corridor for rehabilitation using methods such as the Forest Department is pioneering.

A paper by Sharma's team entitled "Establishing a Corridor for the Elephants of Jharkhand using Remote Sensing and GIS" underlines the rapidly developing problem, and the need for urgent action. Referring to elephants from the Dalma Wildlife Sanctuary in Saranda forest in



DR. PRAMOD BANSODE

The reappearance of a tiger after more than a decade in the forest corridors connecting the Hazaribagh Wildlife Sanctuary to its western forests confirms that it is not only elephants that use the corridor. Over-exploitation will result in even these transitory tigers being lost and with them, the hope that Hazaribagh's forests might stage a comeback.

the south of Jharkhand, the paper reports, "The traditional routes of elephants exist since time immemorial. But of late they are trying out new routes. In the process, two groups of elephant herds, one comprising about 125 elephants and another of 25 elephants have been isolated from the Saranda forest and are trying to relocate themselves in the jungles of higher latitudes of the state i.e. in Hazaribagh district. The group of 25 elephants has as many as five calves." According to the paper, these herds are the ones causing maximum human-elephant conflict.

As the "gold rush" continues to dig as much short-term profit as possible from beneath the soil of the Chotanagpur Plateau, which covers much of the mineral and forest-rich state, Jharkhand is digging its environment into a hole from which it will not easily recover. While there are positive signs that the problems are being recognised by some people and some level of action is being taken, without support at the highest levels of government, progress will be difficult.

One indicator of the Jharkhand government's attitude is its home page, which does a good job of advertising the

state's mineral wealth for investors. However, the information given about Hazaribagh Wildlife Sanctuary is out-of-date and misleading. Tours are advertised to the sanctuary, which is referred to as having had 14 tigers according to the 1970 census. There is a sad disconnection between this and the present reality with no tigers present at all for over a decade and now a single animal reappearing. While it is possible that some "transitory tigers" were quietly ignored by officials, it seems clear from Jharkhand's chosen public face on the Internet that the government is intent on ignoring the present situation. The lone tiger represents a moment of truth for the newly-created state. Will it take the steps necessary to recognise, conserve and where necessary rehabilitate the habitat, including forest corridors, needed to make sure it is not the last time the great cat is seen in Jharkhand where there were once so many?

Philip Carter (website: www.writingfortheplanet.com) is a Canadian environmental journalist living in Japan. His journey to India was sponsored by Forte Science (www.forte-science.co.jp), a Tokyo translation company. 🐅

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