THE HOMELESS HERD

An Indian village battles an elephant invasion By Rowan Jacobsen



The men of Nohotia hustled along the top of a twenty-foot earthen embankment and peered across a darkening floodplain of cabbages, eggplants, and mustard flowers at the gigantic shapes

emerging from the line of trees that marked the edge of the Brahmaputra River. Bleary-eyed men with hand axes sat beside small fires, splintering tree trunks into the night's fuel. A flaming tire hung from a tree, roaring and sputtering. In the village, women in bamboo houses simmered fish curries to feed the men on the battlements. Two weak spotlights swept the fields. The embankment had been built to hold back the Brahmaputra during its annual flood, but now it was the last line of defense against the elephants.

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As the color drained from the fields and a white mist gathered, the air filled with low rumbles and the treetops began to sway and thrash. "It's like a storm coming," said Dhruba Das, a pensive, chain-smoking thirty-two-year-old specialist in mitigating human-elephant conflict (HEC).

The villagers shouted in Assamese and banged on *dhols*, two-sided drums worn around the neck, trying to make us sound bigger and more numerous than we were. Some were talking into banged-up cell phones, which are cheap and ubiquitous in rural India. I trained my headlamp into the gloom. The sounds got closer. Brittle rice stalks crunched. Banana trees cracked and snapped. There was a snort, then

a shriek like a giant screw being driven into a board.

A gunshot sounded from a hundred yards down the embankment. Three men in khaki uniforms stepped into the firelight near me,

working the bolts on ancient rifles. Holding the guns at their hips and pointing low over the trees, they fired off a few rounds.

There was a moment of quiet. We held our breath. Then a Mesozoic roar ripped through the night, a noise I didn't know any animal could make.

"They are frustrated," said Dhruba. "They don't like the gunshots."

"What happens now?" I asked.

"They will wait a few hours, then try again. They are very patient. And they know that people can't keep up this kind of thing

for too long."

Ithough it borders the Himalayas, much of the Indian state of

Assam is taken up by the huge, flat floodplain of the Brahmaputra. For most of the year the river is a mile wide, but when the summer monsoon hits and storm after storm catapults off the warm Indian Ocean into the flanks of the mountains, the river rises up to twenty feet. It liquefies its banks and islands and piles the dirt in new places. When its waters finally recede a few months later, new islands, called chaporis, appear and are soon colonized by, in succession, grasses, casuarina trees, dairy farmers, and vegetable farmers. The smallest chaporis survive only a season, but the largest, created during the highest floods, can stick around decades or even centuries. They make excellent farmland.

In the fall of 1997, government officials in Assam began receiving strange reports from rice farmers on Gazzara Chapori, a sandy island a few miles north of Nohotia. The farmers' crops were being raided each night by a dozen elephants. This seemed impossible. Elephants raid crops wherever human settlements abut their habitat, but no elephants lived anywhere near Gazzara Chapori; most of its inhabitants had never seen one.

The elephants that showed up that year had swum to the island, and there they stayed for the next two months, rampaging through the rice paddies and sleeping off the days in any uninhabited patch of scrub they could find. Once the surviving rice had been harvested, in January, they disappeared.

In the fall of 1998, the elephants returned, having doubled their numbers. Again, they stayed two months, ate a lot of rice, and then were gone.

More elephants came each year. Assam's Forest Department, which is responsible for all wildlife in the state, suspected that the herd had followed the Subansiri River thirty miles down to the Brahmaputra from a reserve forest in the Himalayan foothills. Assam's reserve forests have become badly degraded because of the state's surging human population; in recent years, millions of Bangladeshi migrants have come in search of food (which it has) and work (which it doesn't).

Normally, elephants are extremely loyal to their home range. They live as human hunter-gatherer communities once did, following seasonal migration routes established by generations of their forebears in order to avoid exhausting the food in any one place. These elephants were likely traveling south because their forests could no longer support them year-round.

By 2002, the herd had about seventy elephants in it. That fall, they destroyed the rice paddies on chaporis stretching along fifty miles of the Brahmaputra. And this time they didn't leave. Instead, they swam from chapori to chapori, spending their days hidden amid tall grass and feathery casuarina trees.* At night, they ate sugarcane and potatoes on the chaporis and, increasingly, on the mainland. They spent a full year on the Brahmaputra, and then another, becoming the first known riverine elephant herd in the world.

The Forest Department's forest guards, as they're known, have now been tracking the herd for more than a decade. They began calling it *aghori sahan*, the homeless herd. A herd's success seems to correlate with the age and experience of its matriarch. It is her memory for foraging areas, watering holes, and paths—her knowledge of the landscape—that gets them through the lean times. Because the herd's leader was relatively small, the guards called her Sarumai, a nickname often given to young girls.

Sarumai seemed to have an uncanny ability to navigate a strange and hostile environment and keep her herd one step ahead of trouble. At some point the elephants figured out that the best stores of food were not in the fields but in the kitchens and granaries of the farmers' villages. They began sneaking in at night and knocking over houses, which are

often made of bamboo slats reinforced with a paste of mud and cow dung. If something moved in the wreckage and, say, screamed, the elephants would spook and either kick it or whack it with their trunks. Usually the thing never moved again. "They rarely go out of their way to hurt people," Dhruba Das told me, "but if someone gets in their way, they won't hesitate."

The herd lived like bandits, raiding a cache of food each night, hiding out on whatever chapori was nearby during the day, then moving on as soon as the pressure

got too intense.

bout 400 people and at least one hundred elephants are killed in India every year because of HEC. Along the Brahmaputra, thousands of houses have been destroyed, farmers have seen their whole year's crop ruined, and entire villages have been abandoned because of the nightly elephant attacks. Dhruba's job is to travel from village to village and train people what to do when the elephants come.

"It's difficult to prove an elephant's intelligence," Dhruba said. "They don't have a monkeylike intelligence. 'Intelligence' isn't even the right word. It's more like wisdom. They can sense things. They know what to do. They'll take whatever a situation offers them and use it to their best advantage. And they don't aggravate situations. Unlike monkeys."

Once the elephants began raiding houses, they learned about rice beer, which is fermented in the villages. "They love it," Dhruba said. "They will do anything for it." Then they started stealing other foods. "The villagers tell me, 'Any time we make pork curry, they will come.'"

Salt is another favorite. A few years ago, Dhruba's brother had just finished a tae kwon do workout in their family home in Bokagaon, a village not far from Nohotia. He had peeled off his shirt and tossed it on the floor. Moments later, a trunk pushed through the window. While Dhruba's brother hid under the bed, the elephant found the shirt, stuck it in his mouth, and started sucking on it. He liked it so much that he

^{*} Elephants are superb swimmers. They float with their heads submerged and their trunks raised like snorkels; in that position they can paddle along for hours. An elephant swept off a boat during an 1856 storm thirty miles off the coast of South Carolina came swimming ashore days later. An 1879 account tells of a herd of seventynine crossing the Ganges in Bangladesh: "In the longest swim they were six hours without touching the bottom."



smashed through the wall looking for more. Dhruba's brother grabbed his sister and mother and they escaped through the back door.

Because the Asian elephant is a protected species, retreat is often the only option. India is home to the last great population of one of the most iconic animals on earth and more peasants than its census takers can count; it's no secret where the government's allegiances lie. The penalty for killing an elephant was recently raised to ten years in prison.

Moreover, Indian elephants' best protection derives not from civil rules but from religious ones: elephants are representatives of the elephant-headed Hindu god Ganesha, remover of obstacles and bringer of good luck. Most villagers I met did not use *haathi*, the Hindi and Assamese word for elephant, to describe their attackers; they said *Ganesha*. That he, of all gods, is causing so much distress is deeply troubling to them.

Bokagaon was one of the first places in Assam the elephants struck. In 2001, when Dhruba was twenty-one, villagers in his district suffered so many elephant raids that the old taboos started to break down.

That summer seventeen elephants were killed, many poisoned by rice

beer that had been laced with a powerful pesticide and left in the fields. Locals painted PADDY THIEF [BIN] LADEN in Assamese on the side of one carcass. Other farmers began tapping into the power lines and running lethal wires into their fields. In 2004, five elephants were electrocuted near Dhruba's village. When he heard that one of the farmers in his village had just set up a live wire, he went to the field and ripped it out. He spread word that if anybody tried again, he would tell the Forest Department and they would be arrested. Soon after, he joined the Assam Haathi Project, started in 2004 as a collaboration between an Assamese NGO called Ecosystems India and the U.K.based Chester Zoo.

The project tried everything from digging trenches to planting rows of chili peppers around some villages. They built nonlethal electric fences, but the elephants learned to snap the wires with uprooted trees. They also learned to knock over the posts between sections of fence. A few males discovered that their tusks didn't conduct electricity and could be used to hold down the wires for the others.

"When other animals have their habitat destroyed, they just quietly disappear," Dhruba said. "But not elephants. They fight back. They let you know their habitat is destroyed.

Because they can go anywhere. You can't stop them."

The morning after the siege of Nohotia, I saw sleeping bodies all along the embankment, curled up next to smoldering fire pits. The homeless herd had trashed a lot of crops and a few buildings on the periphery, but it had avoided the village core. A tiny victory, but the herd would be back. After more than a week of sleepless nights, the people looked ragged.

Dhruba and I followed a footpath down to the riverbank, sidestepping toppled banana trees, broken fences, splintered bamboo stalks, and piles of elephant dung. The fields were full of flattened plants. Pissed-off women in bright scarves squatted between the rows, salvaging whatever potatoes they could find.

Nohotia had suffered similar attacks in 2008, when there were still families living on the floodplain. Now those houses were destroyed, their earthen foundations the only sign they had ever existed, and the families had dispersed; no one knew to where. The homeless herd changed its pattern after that, striking elsewhere for a couple of years, but in January 2012, when I was in Nohotia with Dhruba, it came back.

A mile down the path, we reached the Brahmaputra, where we waited for a black canoe that was balancing two bicycles, one motorcycle, and five people. Dhruba smoked. Across the channel lay Kartik Chapori, one of the largest islands in the river, where we had arranged to meet Atul Das, a Forest Department beat officer for the chaporis. Das had spent years shooing the homeless herd from village to village. He was on Kartik Chapori in pursuit of two rhinos that had swum over from Kaziranga National Park, a 300-square-mile sanctuary on the south bank of the Brahmaputra that is home to some 2,000 of the world's 3,000 surviving Indian rhinos. Powder made from their horns is worth tens of thousands of dollars per kilogram on the Chinese black market, and poachers had been infiltrating the chaporis, posing as fishermen. Das and his men were the designated bodyguards until the rhinos decided to return to the safety of Kaziranga.

The canoe arrived and its passengers disembarked, leaving a couple of toothy six-year-old girls holding bamboo paddles. "These are our little boatmen," Dhruba said. As the girls ferried us across the clouded jade of the Brahmaputra, we haggled over the price. We offered ten rupees—about twenty cents.

"No way! One hundred rupees!"

"Too much. How about ten rupees each?"

"Okay, fine."

On the other side we hiked high up along the eroding riverbank for a couple of miles, until a sandy footpath lined by bamboo fences and pink bougainvillea brought us to the farm of a stout, mustachioed man in his sixties named Paresh Singh. The courtyard was aflame with orange marigolds and towering poinsettia and hibiscus trees. Singh sat on a plastic chair, looking disgusted.

"They were here. It's a disaster." Every few minutes as we talked, a cow wandered through the court-yard, pursued by Singh's yapping dogs. "They broke all my fences. Now the cows are coming through and eating everything." Singh said he could tell when the elephants

were near because the dogs would get quiet and slink into the house.

Singh's great-grandfather worked for the British India Steam Navigation Company at the end of the nineteenth century, running steamboats up and down the Brahmaputra. He noticed this beautiful chapori and decided to settle down on it. Singh had farmed twenty acres so successfully that he owned something nearly unheard of in the area: a tractor. But his fortunes had recently turned. "Since 2008 we've suffered constant attacks," he said. The herd had attacked every house on the island and killed one farmer while he was asleep. "I used to farm ten acres of sugarcane. It was my most profitable crop. The elephants came in 2008 and ate it all. I was shocked. Neither my father nor my grandfather nor my great-grandfather ever saw an elephant in this place. Now they've come and done it again. I'm finished with sugarcane. I have to find things they won't eat." The herd polished off all his potatoes and cabbages and plucked all his eggplants with their trunks. What else could he grow? "Maybe mustard. And turmeric. That's about it." The elephants ate the roots of all twenty-two of his coconut trees to get the salts.

I asked Singh if he'd ever faced a problem this serious. "No. There are floods, but they go away. Last year tigers ate eight of my cows. This year they're eating somebody else's cows. But tigers are no big deal. A few cows is not a huge loss. And you can scare tigers away by making noise. But not elephants!"

Each night, Singh fired up his tractor to repel the elephants. "It's my one advantage. I turn on the headlights and ride right at them. If it's a family with babies, they'll run. But if it's a bull or a matriarch, they won't. They'll back up a step or two, but that's it. Then they'll do some mock charges. So far they've been too nervous to actually charge." His three sons help him, but a small group of people does not impress elephants, and twenty acres is too much ground to cover. "We tried until about two thirty. Then I lost my mental edge and they got the crops anyway."

Atul Das pulled up on a 200cc motorcycle, a rifle slung over his shoulder, and immediately plugged his cell phone into Singh's generatorfed bank of car batteries. Cigarettes and cups of tea all around. Das had news: Yesterday the rhinos were hiding in some tall grass and they had maimed two farmers who mistook them for cows. "The men are in the hospital now. If they live, they'll be blessed." (The rare survivors of rhino attacks are considered holy.) Das spoke in a soft, soothing murmur that might have evolved from dealing with elephants—or villagers. "The people hate us. When we first go to a village, they curse us. Sometimes they even attack us. The problem with this herd is that they're visiting new places every year. They're still exploring the area. So every year they're encountering people who don't know how to react to elephants. And every year I have to deal with new angry villagers who blame the Forest Department."

"And you can't use your firearms against the villagers," Dhruba added. "I suppose that's obvious."

"I ask myself what I'm doing out here," Das admitted. "It's quite pointless. We're not saving any fields. And the situation will get worse. People are still tolerating the elephants, but soon they'll start killing them. People are losing their reverence. But mine has grown. I didn't use to share the local beliefs that elephants are holy creatures that can recognize you and understand you, but after working with them for so long, I believe. They really are spiritual. Every year we make an offering to the herd. We come face-to-face with them and we light some incense sticks and kneel down before them. We explain that we are responsible for the villagers and the crops, and because of that we might sometimes have to use our guns. We ask them to please understand, and to please not harm any of the people. They always respond. They raise their trunks and trumpet. They know us, because we're always

around them. We respect each other."

Dy 2004, Sarumai had refined her techniques. The elephants didn't run at the first sight of people. They stayed and ate until sufficiently unnerved by loud noises and lights. The Forest Department brought in eight kumki, trained elephants ridden by mahouts. The idea was that the mahouts, armed with guns, could pursue the herd from chapori to chapori through the water, firing blanks into the air. It was a disaster. Elephants love water; mahouts do not. As soon as the *kumki* waded into the Brahmaputra, they sprayed trunkfuls of water on their backs and rolled sideways, dislodging their panicked riders, who soon refused to go anywhere near the river.

By 2007, the herd had swelled to 106 members, including a number of young elephants born on the river. "They are in very good health," Gunin Saikia, Assam's assistant chief conservator of forests, told me. "They eat well." The herd raided fields and villages along a hundred miles of river corridor, crossing through four separate Forest Department districts. "When the headache was in your district," Saikia said, "the goal was simply to push it to the next. Then the headache was gone."

By 2008, with villagers increasingly agitated, the Forest Department attempted to resolve the situation permanently by pushing the herd into Kaziranga National Park, which was already home to more than 1,000 wild elephants.

For fifteen days, a group of forest guards drove the homeless herd toward Kaziranga using small boats and motorcycles, chasing them with lights and gunshots by night and camping on the chaporis during the day. Finally, the herd disappeared into the twelve-foot elephant grasses of Kaziranga, and the guards congratulated one another and went home.

A week later, the herd returned to the chaporis. "Not all of them," said Saikia. "About seventy came back. The old ones stayed. I think they were still familiar with forest vegetation. But the elephants that were born and raised on the river were accustomed to eating crops. I think they didn't see their cabbages, paddy, and sugarcane and said, 'What are we going to eat here?'"

Sarumai also left the park. A few of the forest guards reported to Saikia that they had noticed something shiny and metallic around one of her legs. They were pretty sure it was a broken chain.

Had Sarumai escaped from captivity? Gunin Saikia thought so. "We have too many runaway elephants to keep track of. Probably Sarumai was once a domesticated elephant. She knows that people have good food. So she said to the herd, 'Why don't we go and stay with them?' That may be one reason why they're associating with humans and not the forest."

Dhruba was skeptical. "Escaped domesticated elephants will rejoin wild herds, but I don't believe one would ever be accepted as a leader."

Wherever Sarumai came from, her herd was now fully integrated with the human landscape of the river. "If you watch them," said Saikia, "you'll be astonished by their behavior. Some of them were born here and have lived here for twelve or thirteen vears. They're having sex here, they're giving birth here, they're doing everything they used to do in the forest. And every year, five or six newborns are coming. When other elephants come out of the forest and raid crops, you can chase them back to the forest. But you can't chase these elephants back to their habitat.

This *is* their habitat. They think we're the intruders."

The elephants attacked Nohotia for the ninth night in a row, and by the following day the villagers had peppered the Forest Department with so many phone calls that it agreed to send in reinforcements.

That afternoon about a hundred men and boys of Nohotia gathered on the riverbank. Below them, a twenty-acre lobe of sandy, treecovered floodplain jutted out from the bank and curved downstream. This peninsula was the homeless herd's current hideout. It was owned by a farmer named Jogen Bora, who led us down a path along the bank, hopping over piles of elephant dung. We sat down and waited for the herd.

Bora had begun farming in the village in 1990, when he was thirty-four. "None of this existed then," he

said, gesturing across the channel to the tip of the peninsula. "The river was right up against the main bank. And the land on the mainland was all forest. I and some other villagers cleared it for cultivation. The forest was full of brain-fever birds and pythons and all these other small animals. And there were these huge four-foot lizards I'd never seen before. They all left after we cleared it. Before I planted my first crop, I went down to the river and placed some betel nut on a banana leaf and floated it on the river. I said a prayer and asked the river spirit to be kind. And the banana leaf floated against the current for a little while, then tipped and went straight down into the water and disappeared. The river accepted the offering. Immediately after that it began building out this land from the riverbank. And then the forest grew on it. I've kept this land free of cultivation so it can be a home to all the animals I displaced, and I won't let anyone hunt in here." He was sitting cross-legged on the sand, poking at the ground with a stick. "Now everyone wants me to clear it. They say I'm sheltering the elephants. But I won't do it. The little birds and animals need a home, too. Of course I never thought there'd be elephants in here."

Bora was one of the first people targeted by the homeless herd when it attacked in 2008. "I was standing here, and I could see them across the river. They were trumpeting. I got really nervous and stayed completely silent. I didn't shout to my wife or anything. At dusk they came across the river, so I ran back to my farmhouse. I climbed onto the roof and shined a flashlight out. I could hear bamboo stalks snapping as they approached, and I realized they were coming for the house. I told my wife we'd better get out of there. She grabbed her jewelry and we ran. I told her I didn't think the elephants were interested in her gold." The herd destroyed his house. Bora rebuilt in the village, behind the embankment.

By four thirty, squadrons of egrets were gliding over the river toward their roosts, their white bodies lit pink by the setting sun. Still no elephants. "Maybe they left," I said.

"Or maybe they're being very quiet," said Dhruba. Shapes were growing indistinct in the twilight. Suddenly, Dhruba held up a finger and stared into the trees. "I think they are quite close." We retreated and joined the crowd along the river path. A man scaled a tree and peered out nervously. "Where is the Forest Department?" somebody grumbled. Young boys lit fires all along the bank.

Five forest guards arrived, three bearing rifles and two with handheld spotlights. The villagers clustered around, asking questions and shouting advice. The guards spread out on the half mile of riverbank opposite the peninsula and began sweeping the channel with their lights. The man in the tree hollered and pointed. We strained our ears, and there it was, a repetitive crunching from the forest. For ten long minutes the sound grew louder as the treetops swayed. Birds shrieked and flapped out of the elephants' path. "Remember," a forest guard said, "when they try to cross, hold your ground and mal___ot of noise. We'll try to herd themvuownstream."

The villagers shouted at the jungle, "Go away! Leave us alone! You've eaten enough!" A guard fired his rifle low over the peninsula. There was a single trumpet from the trees, and the rustling stopped. We had the guns and the lights, but the elephants had the discipline. They were letting the last of the light fade.

"Tighten your shoelaces," Dhruba whispered, kneeling down. "If you meet an elephant, those bamboo groves can be very useful. You can circle them faster than an elephant can. Just keep doing that. If you get caught in the open ground and he charges, you have to hold your

ground. Bluff him. You run, you die."

It grew dark and weirdly quiet, just night birds and crickets. From a boat on the river, someone pointed a handheld spotlight up into the sky. "There's this very brave guy who lives on Majuli Chapori," one man said idly. "He chases the elephants and beats them with sticks."

A hundred yards downstream, a guard's spotlight fell on a half dozen

gray hulks in the middle of the channel. The elephants froze, as if playing flashlight tag. We all ran toward them, yelling, "Hey! Go away! Find some other village to harass!" The elephants turned around and melted back into the trees. A cheer went up. A man waved a machete over his head and shouted in Hindi "Jai Ganesh Baba ki jai!"—"Ganesha, please grant us victory!"

But then, a half mile down the riverbank, in the direction we hoped to send the herd, the neighboring village began banging drums and pots and whooping. Two motorcycle headlamps were turned toward the river. "Go away!" the people shouted. "Get out of here!"

"Damn you!" a man next to me shouted toward the village. "Don't shine those lights! Those elephants have been eating our crops for ten days! We've had no sleep! Let them eat your food for a night. If you chase them back here, we'll kill you!" Threats flew back and forth between the villages, and Dhruba stopped translating.

Upstream, somebody called, "Hey! They're over here too! Bring your guns!" Lines of crisp white cell phone LEDs hopped along the path in that direction. We seemed to be down to one spotlight, which was illuminating elephants up and down the channel. They weren't crossing as one herd; they were crossing everywhere.

A forest guard passed me with his gun lowered, a sheepish smile on his face. He was out of ammo, having been allotted only one clip. He called his boss. "You guys have any more bullets? How about batteries? One of our lights is dead."

"Ah! They're crossing!" came a shout. "Get your light down here! Fire your guns!" Next to me, three orange flashes exploded from a rifle muzzle, the bullets whistling toward Kartik Chapori.

Dhruba shook his head. "Chaos." It was hard to believe that *Homo sapiens* was the species to arise all-powerful from the African savannah.

Soon the far village fell quiet. Then ours did. The single spotlight remaining was searching all around. "Where are they?" someone asked. A cell phone rang, and after a brief

conversation a man announced that, according to his friend, five or six elephants had slipped through the lines and were ravaging crops between us and the embankment.

"We're cut off!" a boy cried out, turning to the guards. "Lead us back to the village with that spotlight!"

"I can't believe you people," the guard replied. "You go to all this effort to chase the elephants back, and now you're going to abandon your position? You need to stay here all night, or it will be useless."

"He's right," one man said. "We need to light more fires. Spread out and guard the whole bank."

"Forget it!" said another. "It's too late. We're dead if we stay. Save us!"

"You call us and say that we don't do enough, yet you're totally unprepared. No lights, no firecrackers."

"Just please take us back."

But which path would be safest No one could decide. So one troop of human a scooted north along the riverbank following a guard with a gun, and one went south, following a guard with a light, leaving Dhruba and me alone in the dark with the sound of elephants splashing across the channel in front of us.

"Time for your headlamp," said Dhruba.

I patted my pockets. "I think it's with my jacket back in the village." All afternoon I'd meant to go back for it, but I'd been too distracted.

"We need to go," Dhruba said. "Now." We groped our way along the trail until we stumbled into two teenagers with cell phone lights. They led us through the fields and bamboo groves, moving as silently as possible, looking ahead for bulky silhouettes. Suddenly Dhruba stopped and held up his arm. We listened for a moment. Nothing. He snapped a piece of bamboo off the trailside fence and whacked it against the ground as hard as he could. Something heavy smashed through the bushes in response, and instantly we were clawing through the fields in the dark, crushing mustard plants beneath our feet, scrambling toward the distant drumming on the embankment and the shuddering fires of our own kind.