



Vets go WILD

Dangerous animals, deadly drugs and high-speed helicopter chases – it's all in a day's work for South Africa's wildlife vets. **SOPHIE STAFFORD** joined the team and discovered that, if you're prepared to get your hands dirty, you can get closer to big game than you ever dared dream.

Photos by Thomas P Peschak

Sophie helps to steady a sedated two-tonne white rhino and monitor its breathing while its valuable horn is microchipped. Ointment has been applied to the animal's eyes to keep them moist, and its ears have been notched so that rangers can identify it from afar.

CASE 1: RHINO CONSERVATION

"I've just been abducted by aliens!" For one white rhino, today was going to be like a bad dream. For me, it was the beginning of an experience of a lifetime.

With a sigh, the shiny, black R22 helicopter landed in the clearing, its blades scything the air with a gentle swish-swish-swish. I ran to the cockpit and slid into the back seat, pulling on oversized ear-muffs. The chopper juddered and, with a light hop, lifted into the air.

I was at Klaserie Nature Reserve, 60,000 hectares of prime South African bush that dropped its fences to Kruger National Park about 10 years ago and now forms the park's western border. As such, it is vulnerable to poaching, so the numbers of black and white rhinos living here are closely guarded secrets.

To safeguard these endangered animals, conservationists have also begun micro-chipping their valuable horns. For this, they need a vet, and the man for the job is Dr Peter 'probably-the-best-vet-in-Africa' Rogers, the sort of experienced, unflappable expert you'd like to have as your doctor, let alone to look after your prized pooch.

TROPHY RHINO

As the helicopter tipped sideways, the ground loomed large and I noticed something was missing – the door. But before I could worry about this unfortunate oversight, pilot John Bassi said in satisfied tones: "Aha! A perfect specimen." I peered down at a herd of five white rhinos, one of which was a magnificent, two-tonne bull. "We've got a big one," John

radioed Peter, so that he could prepare the dart.

As we landed, I jumped out of the chopper and into the chase vehicle, while Peter took to the air, dartgun in hand. Minutes later, the radio crackled into life – the rhino was darted and heading north. He would be on his feet for another six minutes or so until the immobilising drugs kicked in, and we had to be there when he went down to make sure he was OK. With the chopper keeping tabs on our quarry from above, we set off in hot pursuit.

Moments later, the rhino stepped onto the path right in front of our vehicle. He was unsteady on his feet, giving little high-kicks as the ground moved under him. As Peter crept forwards, the rhino toppled onto his side.

We raced over to prop him up and keep his airway clear. As he was conscious but unable

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to respond, it was important to keep him calm. Grasping his huge, 62-inch-long horn, I pulled a blanket over his eyes and plugged his ears with what looked like Peter's old socks. Steadying his massive, prehistoric head, I patted his rough hide and, pressing a hand to his nostrils, counted his wheezing breaths.

The vets sprang into action. All the while a rhino is down, it's vulnerable to respiratory failure, loss of blood pressure and heart attack, so it's a race against time to carry out the procedures and get it back on its feet (see box, left). The warden whipped out a drill and bored a tiny hole into the rhino's horn before inserting a microchip and sealing it in with a spot of glue. The chip contains an ID code – if the horn ever turns up on the black market, a quick scan will reveal which rhino and area it came from. Meanwhile, Peter used a monstrously large needle to inject a microchip behind each leathery ear. When a rhino is killed by poachers, these extremities are often chewed off by hyenas, so the chips are the only way conservationists can identify the carcass.

ANIMAL EXPERIMENTS

As I watched, Peter produced something that resembled a torture device – an ear-notcher. Klaserie's rangers have developed a system that enables them to identify individual rhinos from a distance. A series of triangles is punched into each ear, denoting 1, 2 and 4 (on the right) and 10, 20 and 40 (on the left), combinations of which give each animal a unique number. Our rhino was the 60th to be microchipped, so he had two triangles (20 + 40) in his left ear.



Buffalo are farmed extensively in South Africa. A large rack of horns is a sign of good genes, and big bulls like this one are prized breeders. The calves are taken away from their mothers soon after birth to avoid catching diseases and are reared on Jersey cows.

HOW TO MICROCHIP A RHINO

Locating and darting a rhino from a helicopter is the easy part. Once you catch up with your quarry on the ground, the hard work begins.



1 THE DRUGS TAKE EFFECT. As the immobilising drugs start to work on the rhino's muscles, it becomes unsteady on its feet and eventually topples over. Vets Peter Rogers and Charlotte Marcaux are on hand to stabilise it as soon as it's safe to approach.



2 THE RHINO'S EYES ARE COVERED and kept moist with ointment, and its breathing closely monitored since the drugs affect respiratory rate. Microchips are injected into the skin behind its ears so that the animal can be identified if found dead.



3 A HOLE IS DRILLED into the rhino's anterior horn so that a microchip (the size of a grain of rice) can be inserted and glued in. If the rhino is poached for its horn, and the horn is later found on the black market, it can be traced back to Klaserie and this individual.



4 THE RHINO'S EARS ARE NOTCHED. Triangles denoting numbers – here 20 + 40 = 60 – help rangers to recognise individuals from a distance. Rhino ears bleed a lot, so clamps are used to minimise blood loss and antiseptic is applied.

Cheryl-Samantha Owen

Peter edged the device into place and squeezed. I winced. Rhino ears bleed copiously, so the surrounding veins were quickly clamped to minimise blood loss. Blue antiseptic spray marked the job as done. The whole operation took less than 10 minutes.

"I'm going to bring him round," declared Peter, grabbing an ear and preparing to inject the antidote. "Clear out." We scooted back to the vehicle – there was a good chance that Rhino 60 was not going to be happy when he came round. Within minutes, he was clearly awake, though he stayed prone, disoriented. Peter had given him a tranquiliser to see him through these stressful moments while he regained his full faculties.

But Rhino 60 was not going to take this assault lying down. Lurching to his feet, he began walking towards the vehicle with grim determination. "What did you give him, Pete – whisky?!" exclaimed the warden, as he slammed the truck into reverse and beat a hasty retreat. The rhino followed. But eventually he decided we weren't worth the effort and woosily headed into the bush, no doubt to tell his companions how he was abducted by aliens who conducted bizarre experiments on him.

CASE 2: BUFFALO TB TESTING

I stood face-to-face with one of Africa's most dangerous animals. The buffalo raised his head

and gazed down his nose at me – a threat. I held my ground... and, in a puff of dust, he skittered away to be comforted by the rest of the herd. Well, he was only two years old.

I was at a farm in Bothaville with Peter to test their 32-strong herd of young buffalos for diseases. In South Africa, wild buffalo are responsible for the spread of foot and mouth and corridor disease to livestock. They also carry brucellosis and bovine tuberculosis (which they probably contracted from infected cattle introduced to the Kruger National Park area in colonial times). Farmers are understandably keen to keep their cattle free of disease and don't want them coming into contact with wild, infected buffalos, so to repopulate game reserves buffalos have to be bred in captivity (calves are hand-raised or adopted by Jersey cows to prevent them from contracting the diseases in their mothers' milk). Their movements are also strictly controlled: you can only sell your animals if they have passed a thorough check-up. Buffalos with a clean bill of health are valuable – a disease-free heifer can sell for 150,000 rand (about £10,000).

As we entered the pen, the youngsters eyed us warily, showing none of the species' famed aggression. Pete raised his gun and 'Pffff'

– the first pink-feathered dart found its target. Surprised, the buffalo leapt into the air, then cantered in a circle, hind hoof kicking up at his haunch where the missile had struck. 'Pffff, pffff' – two more darts hit home.

A DRUG-INDUCED DAZE

The first buffalo soon began tottering, as if drunk. As his legs grew wobbly, he sat down on his haunches, front legs splayed and braced.

Then, with a groan, he sank down, nose in the sand.

As the other two buffalos keeled over, we ran to them. Kneeling beside a mahogany-coloured bull, I covered his eyes with a towel and wrapped both hands round his curled horns. Holding his head clear of the ground, I counted his breaths while he was injected with a cocktail of vaccinations. Then things got really messy...

"Pull his head towards you," Peter instructed. Moving the bull's heavy head was not easy, but as I struggled, Peter skilfully found the vein in its neck with his needle and filled six phials with rich, red blood. These would be sent off for testing for the four diseases – the fate of the entire herd rested on the outcome.

The antidote was administered and we retreated. Surprisingly quickly, our patients ►

DID YOU KNOW?

M99 – the opioid drug used by vets to immobilise large game – is 10,000 times more potent than morphine. It can bring down a rhino in six minutes and kill a man in under an hour.



As pilot John Bassi skilfully handles the powerful R44 helicopter, vet Charlotte Marcaux places a boot on the foot rail and leans perilously far out to dart a dashing black wildebeest bull. Her aim is impeccable.



As a herd of blesbuck take to their heels, Charlotte readies the dartgun. The opioid drug is so toxic that the pilot carries the antidote to inject her with, should she accidentally drop some on herself.



Eyes covered, a black wildebeest awaits transport back to base. Note his broad, flat muzzle, typical of a grazer, and the cheeky crest of hair down his nose.

were up and mingling with their herdmates, who nuzzled them and licked their haunches where blood from the darts was drying.

By midday, we were adept at processing the calves. Around us, the rest of the herd goggled nervously as they waited their turn. Though they were young and docile, we stayed alert – buffalos are said to kill more people in South Africa than almost any other mammal, and the first time you forget this might be your last.

CASE 3: DARTING GAME

“This is extreme flying,” declared pilot John, with a wicked smile and a twinkle in his bright blue eyes as he swung the chopper in an arc. “Let me know when you start to feel sick!” “When”, I noted sourly as my stomach churned, not “if”.

I was back in a helicopter, skimming across overgrazed grassland, looking for a herd of black wildebeest. This rare species is endemic to southern Africa, and almost went extinct without anyone noticing. But when the population plummeted to only 32 individuals, conservationists quickly moved the remaining animals into one captive breeding herd. Today, the population numbers in the thousands and black wildebeest have been reintroduced widely.

Our mission was to dart and capture several bulls. “Black wildebeest are stubborn as hell,” John smiled as we buzzed over ostriches and elands, the chopper’s shadow clinging to the contours of the land. “They refuse to be herded. You can

push them so far, but when they get to the edge of their territory, they just run round in circles. And they’re fast. Oh, there they are.” As the chopper lowered beside them, the herd took off, their white-plumed tails held aloft like flags.

They made a magnificent sight, streaming seamlessly over the landscape in a flat-out gallop. I was mesmerised. Fortunately, French vet Charlotte Marcaux was concentrating on the job in hand and had her dartgun ready. The drug affects an animal’s ability to thermoregulate, so it’s important to avoid long, hot chases. As John steadied the chopper, Charlotte leaned out as far as her seatbelt would allow and took aim.

“Two bulls are going down – go, go, go!” John radioed to the ground team. Leaping out of the chopper, I raced to the vehicle. As we bounced over the veldt, we spotted the first bull. He was standing, sides heaving, head lowered, legs shaking. The team rushed him from behind, seized his horns and folded his legs neatly beneath him. Wrapping a jacket around his eyes, one of the workers held his head as, without a backward glance, the team took off after wildebeest two.

This bull was less co-operative, bracing his strong shoulders and easily throwing three men off as they tried to force him to his knees. So they simply linked hands under his armpits and groin, and lifted him into the open back of the truck.

I climbed over the side to get my first good look at a black wildebeest. He was a curious animal, appearing to have been put together

from spare animal parts found lying around. He was small and stocky, with wickedly curved horns more suited to a cow, a zebra’s Mohican-like mane, the beard and skinny legs of a goat and long, white eyelashes like starfish. All topped off with an endearing tuft of hair standing on end down his nose. I was smitten.

On the way back, we picked up the first sleepy wildebeest, sliding him onto a stretcher and lifting him into the back of the truck next to his herd-mate. At base, the wildebeest were given the antidote and gently shoved into a pen. They soon awoke and rose unsteadily to their feet, leaning on the walls for support as they staggered around. Whenever they bumped into each other, they dropped their heads and butted each other – feisty little things.

CASE 4: NET CAPTURE

Kneeling in the dirt, the grass head-high, I felt like a lion lying in ambush. But this was no normal hunt. Behind me, the capture team talked softly in their own language, completely calm before the storm that was about to break. But I was nervous – I had been warned that this might not be pretty.

A distant rat-tat-tat told me that the chopper was driving the unsuspecting prey towards the trap where I lay in wait. The target were blesbuck – pretty, chestnut antelope, about the size of goats, with broad, white blazes and short, sharp, prong-like horns. This private ranch was home to a 200-strong herd, and they were all being rounded up for sale. As blesbuck are not valuable enough to justify darting, the only way to catch them was in a net boma.

The boma consisted of a channel of nets,

lined with smaller, finer netting, that narrowed into a small ‘box’ with additional nets. The animals would be chased into the channel and the momentum of their flight would carry them into the mesh, where they would become entangled. The men would release them and put them on trucks for transport to their new home. Well, that was the theory.

I crouched by the entrance to the box, terrified of spooking the herd at the last minute, when a sudden movement made my heart jump. It was just a tiny duiker. I wished

The black wildebeest appeared to have been put together from spare animal parts found lying around.

it luck. A moment later, the herd was careering down the far side of the nets, the helicopter overhead urging them on. Three veered to the right and bounced straight into the net. The others realised the danger and whirled back the way they had come, but their escape was short-lived. The chopper spun round, racing to beat them to the entrance and turn them back. We could not afford to lose them.

Of the three blesbuck that had hit the nets, two were now firmly entangled, their kicking only making the knots tighter, their bleats filling the air. To my astonishment, the third freed itself, found a gap in the mesh and raced to the horizon. We’d worry about him later.

The herd had been turned and were racing

back towards the trap. Wave upon wave hit the nets, the leaders jumping the first obstacle only to be caught in the second. A curtain was pulled to block their escape route and the air was filled with bellowing, bleating and the drumming of desperate hooves. The team set to work.

BLESBUCK WRESTLING

I raced round to the far side of the boma where the three blesbuck were caught. The men were already expertly detaching the animals from the nets when I arrived, breathless and slightly panicky. “Can I help?” I gasped. One man looked up at me and then down at the blesbuck lying meekly at his feet. Without a word, he pushed its head towards me and, as I grasped its short prongs, he simply walked off.

Feeling the man’s firm grip lighten, the blesbuck started to struggle. Rearing to its feet, it twisted and bucked, springing from side to side. I couldn’t hold it! I feared it would break its neck twisting against my grip. For what seemed like hours, I held on to the manic beast, its sharp horns digging painfully into my wrists, each lurch nearly pulling me off my feet.

Suddenly, thankfully, the man returned. Unperturbed by my struggles, he took the blesbuck’s horns, tucked its head under his arm and held its chin up to prevent it from using the strength in its shoulders it had used so effectively against me. Shaking, I knelt to free the animal’s tiny hooves from the net, and then the man calmly frogmarched it down the boma and over to the truck.

In the team’s capable hands, the blesbuck were quiet and docile, bearing no resemblance to the demon that had fought me so ferociously.

NOW YOU DO IT

» Sophie joined the Shimongwe Veterinary Project with African Conservation Experience (ACE). Based in the Limpopo Province, South Africa (right), the project enables ‘students’ (anyone young at heart) to join an experienced wildlife vet in the bush. For more details of all ACE’s volunteer projects, call ☎ 0870 241 5816; www.conservationafrica.net

» ACE offset all their students’ flights through Climate Care. Sophie’s flight to Johannesburg cost £19.74 to offset. www.climatecare.org

» To read more about Sophie’s adventures with ACE’s wildlife vets in South Africa, read her blog on www.loveearth.com (see p84).



The ambush had been a success. Though it had been stressful for both the blesbuck and me, no bones had been broken. My blesbuck lived to graze another day.

This was my last case as a wildlife vet. Back in Bristol, the wildest animal to greet me was my German shepherd. But I won’t forget the feel of a buffalo’s heavy head in my arms or my new-found love of black wildebeest.



Sophie Stafford has been editor of *BBC Wildlife* for four years. When she was little she wanted to be a vet, but now realises all she really wants to do is cuddle large, dangerous animals.