

around africa

take one rubber glove...

A coalition of American veterinarians is exploring the potential of using minimally invasive laparoscopy to sterilise elephants. David Rogers met up with them at Phinda Private Game Reserve in KwaZulu-Natal.



ABOVE All in a day's work – if your job happens to be 'wildlife veterinarian'.

LEFT Elephants cannot do without water. Some experts advocate the closing of artificial waterholes, which would force elephants to rely on naturally occurring water and keep numbers in check through natural forces.

Burgeoning elephant populations are putting considerable pressure on many southern African reserves. (See 'A crush of giants' in the May 2004 issue for an in-depth examination of the dilemmas posed by Africa's elephants.) At Phinda, ecologists are concerned about the effect of elephant numbers on the reserve's overall biodiversity and, in particular, on its sand forests, which make up 90 per cent of this vegetation type in South Africa.

Last year, 37 Phinda elephants were relocated to other South African parks and reserves, but the demand for elephants in private reserves is low. With the involvement of Ezemvelo KZN Wildlife, Phinda's reserve manager Kevin Pretorius and his team have developed a long-term strategy to address the population problem, which includes an elephant-monitoring programme

under the auspices of the University of Port Elizabeth's Terrestrial Ecology Research Unit (TERU).

'Research has revealed that the average calving interval ratio on the reserve is now one [calf] every three years. Considering that the reserve is fenced and these animals cannot increase their home ranges, this is unsustainable,' Pretorius explains. 'In May, we commenced contraception using an animal protein called PZP, which forms a barrier around the egg. It is a safe, reversible technique that has proved to be very successful in curbing elephant populations elsewhere in South Africa, but even so, we were keen to explore other options, including permanent sterilisation.'

Dr Mark Stetter is Veterinary Services Director at Disney's Animal Kingdom in the United States. He has tried for many years to find a humane, cost-effective method of elephant birth

control and he was keen to try a method of laparoscopic sterilisation that he and his team have pioneered. Phinda seemed an obvious choice to perform a trial as all 40 of the adult elephants at Phinda can be identified on sight and monitoring is ongoing.

On the evening prior to the sterilisation, I joined Stetter around the campfire for a chat about the procedure. He introduced me to his team of American vets, which included laparoscopic expert Dr Jeffrey Zuba from San Diego's Wild Animal Park.

The following morning I was up in the helicopter with the wildlife capture and management team Catcho. The designated cow was located and tranquillised and the Disney team was called in. Using ultrasound – and the biggest rubber glove I have ever seen – they confirmed that the elephant was not pregnant and surgery began. A small incision was made high up the elephant's flank and a specially designed

elephant-sized laparoscopic tube was used to access the ovary. Then the ovary was tied off, the incision sutured closed and the animal was flipped over by crane so that they could follow the same procedure on the second ovary.

All that took six hours. The operation on a second elephant was over in five. In both cases, the elephants rejoined their herds soon after and within a day they were feeding and suckling their young. Stetter says the proof of a successful outcome will become clear in the long term when it can be established whether these animals experience social or behavioural problems as a result of the procedure.

It remains to be seen whether sterilisation will become a viable and cost-effective option in dealing with South Africa's growing elephant herds. But as Stetter says, 'One thing is for sure: it will be another useful tool in the wildlife manager's toolbox.' ■