

Veterinarians of the Faculty of Veterinary Science assist the International Disney Animal Programme to manage growing elephant populations in Southern Africa

By CvB

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Prof Frik Stegmann (Anaesthesiologist), next to the elephant on the left is one of the three veterinarians from the Faculty who is involved in the elephant project led by Disney Animal Programme

Three veterinarians of the Faculty of Veterinary Science of the University of Pretoria, Prof Frik Stegmann (Anaesthesiologist), Dr Johan Marais and Dr Caryl Furniss (both surgeons) are part of an international collaborative project led by Disney's Animal Programmes to conduct a series of procedures to effectively sterilize male elephants to help reduce elephant overpopulation in areas of southern Africa.

The participation of veterinarians from the Faculty as well as the South African National Parks is critical to the long-term success of the programme and the further development of local expertise. According to Dr Johan Marais of the Faculty, this project will ultimately be consigned to the Faculty.

Walt Disney Animal Programmes is leading an international coalition of veterinarians, conservation groups, zoos, universities and private industry who, for the past five years, has performed laparoscopic vasectomy procedures on nearly 20 male elephants in an effort to reduce the elephant birth rates in wildlife reserves, while maintaining normal hormone levels and common social behaviours for the individual elephants.

Elephant overpopulation in game parks and reserves in Southern Africa is a growing problem that can have devastating effects on the natural habitat as well as other animal species that live there. The culling of elephants is a measure that is sometimes considered in order to control the population growth. Elephant population management is thus one of the most critical conservation issues facing many areas of Africa. Elephant vasectomy has proven to be an effective tool to reduce the need for culling and help support the ecosystem.

Since 2004, the team of experts started developing laparoscopic vasectomy techniques for sterilizing males in the wild. During the last three years, the team has sterilized bull elephants at the Welgevonden Wildlife Reserve, Songimvelo Wildlife Reserve and the Pongola Game Reserve. Their latest endeavour involved laparoscopic vasectomies on eight bull elephants in Swaziland's Big Game Parks.

Elephants are unique among most mammals since their testes are internal and require abdominal surgery to perform a vasectomy, making the traditional procedure nearly impossible to do in the wild. A new innovative procedure involves state-of-the-art medical equipment specifically developed for this project and scaled from human to elephant proportions. The elephant laparoscopic equipment was built by KARL STORZ at their headquarters in Germany.

Laparoscopic surgery allows the surgeon to view the internal organs on a monitor and use long thin instruments to perform the surgery. With this type of minimally invasive surgery, the risk of infection is greatly reduced, procedure time is significantly reduced and post-operative discomfort is minimized. All bull elephants that have had this procedure have experienced full recovery without side effects from the procedure.

Other roleplayers involved in the project include the Colorado State University College of Veterinary Medicine and Biomedical Sciences, the San Diego Zoo's Wild Animal Park, Covidien Health Care, Catchco Africa Specialized Wildlife Capture and Swaziland's Big Game Parks. The entire elephant population at the Swaziland's Big Game Parks is part of a long term behavioural study investigating any potential changes in elephant behaviour associated with this population management plan.



Dr Caryl Furniss (right) in the picture on the left and Dr Johan Marais (right) in the picture on the right are the two surgeons of the Faculty that are participating in the elephant project of Disney's Animal Programmes.



Left: Members of the team of veterinarians and other health experts prepare an elephant for surgery. Right: Dr Caryl Furniss of the Faculty of Veterinary Science busy performing laparoscopic surgery on an elephant.