



**Gemma Crowley MSc BSc (Hons) RVN**

Gemma graduated from the Royal Veterinary College in July 2016 with a BSc in Veterinary Nursing. Throughout her degree, she developed a strong passion for wildlife and exotics nursing, which led to her undertaking a master's degree in Wild Animal Biology at The Royal Veterinary College in collaboration with The Zoological Society of London. During her master's degree, she embarked on a research project collecting blood samples from free-living and semi-captive White Rhino in the Eastern Cape, South Africa to analyse the effects of prolonged anaesthetics on rhino biochemistry and to establish a set of biochemical reference intervals for wildlife vets to use when treating future rhino. She completed her masters in September and has since been locuming to save up for her next adventure to New Zealand, Australia and Fiji later this year.

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# Vet nurse gone wild

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**ABSTRACT:** When I tell people that I am a Registered Veterinary Nurse they say "so you work with cats and dogs?" Actually, try rhinos, lions, hippos, giraffe, zebra, cheetahs, antelope, buffalo, the list goes on. Since qualifying in 2015 I have had the opportunity to work with an array of weird and wonderful species, both in the UK and in South Africa, and this is my wild story so far. I really hope this article will inspire those of you considering volunteering abroad to go for it and see what amazing adventures await. The world really is your oyster!

## How my walk on the wild side began

From a young age, I have always had an affinity with wildlife, from splinting the wings of birds with broken wings to feeding hedgehogs in the garden, to making my parents stop the car for toads to cross. As well as having a great appreciation for British wildlife I have always been fascinated by exotic wildlife, as a child watching endless Attenborough documentaries and insisting we spend every weekend at London Zoo. This affinity has only grown stronger throughout my veterinary training, taking every opportunity to develop the skills needed to be an exotic and wildlife veterinary nurse.

Since qualifying two years ago I have been so privileged to have worked with such a range of species, from domestics to free-living wild animals, in a range of establishments. I have been extremely lucky to have gained experience in distinguished institutions such as The Queen Mother Hospital for Animals (QMHA), Tiggywinkles Wildlife Hospital, RSPCA, London and Whipsnade Zoo, and Bristol Zoo. However, the pinnacle of my career so far has been the opportunity to work with free-living wildlife in South Africa. In my final year at the Royal Veterinary College I attended a talk by renowned wildlife vet Dr William Fowlds on his 16-day residential course in South Africa, "Vets Go Wild", and after five minutes I was hooked and couldn't wait to sign up. I spent the remainder of my final year working at The Queen Mother Hospital for Animals, while completing my dissertation, to raise the funds to go out to South Africa and fulfil my childhood dream.

## Vets Go Wild

Vets Go Wild is an experience unlike any other; to call it life-changing is an

understatement. Set in one of the most breathtaking countries in the world, South Africa, Vets Go Wild will not only give you the opportunity to work with some of the most incredible species on the planet, but will fully immerse you in African culture, introducing you to a completely new way of life while creating friendships that will last a lifetime. The course is predominantly aimed at vet students, but welcomes student VNs and RVNs alike, providing you with lectures and notes to coincide with the hands-on veterinary work, so you can use the course to count towards CPD.

At the start of the trip you will have the opportunity to observe Dr Fowlds and his team in action, assisting with administering prophylactic treatments and monitoring anaesthetics as a large group; however, by the end of the 16 days you will be split into groups of two or three and solely responsible for the animals in your care. As daunting as this may sound, you are provided with all the practical and theoretical skills you will need, from dart drug calculations to the normal heart rate of a lion. During the trip you have the chance to work not only with many of the big five – rhino, lion, buffalo, as well as giraffe and zebra – but also some of Africa's most charismatic but not as notorious species such as eland, waterbuck and red hartebeest.

Not only does Vets Go Wild provide you with the opportunity to work with Dr Fowlds' incredible team providing veterinary care to African wildlife, but it also gives you the chance to see South Africa in a different light to what you may experience on a safari holiday or other African veterinary experiences. During the trip you have the opportunity to visit two orphanages, one for orphaned children in the local township, and the other



▲ Figure 1. A lioness chemically immobilised for placement of a contraceptive implant



▲ Figure 2. A male giraffe darted for translocation to another reserve





▲ **Figure 3.** Taking a respiratory rate of a chemically immobilised female white rhino darted for DNA testing of herself and her calf



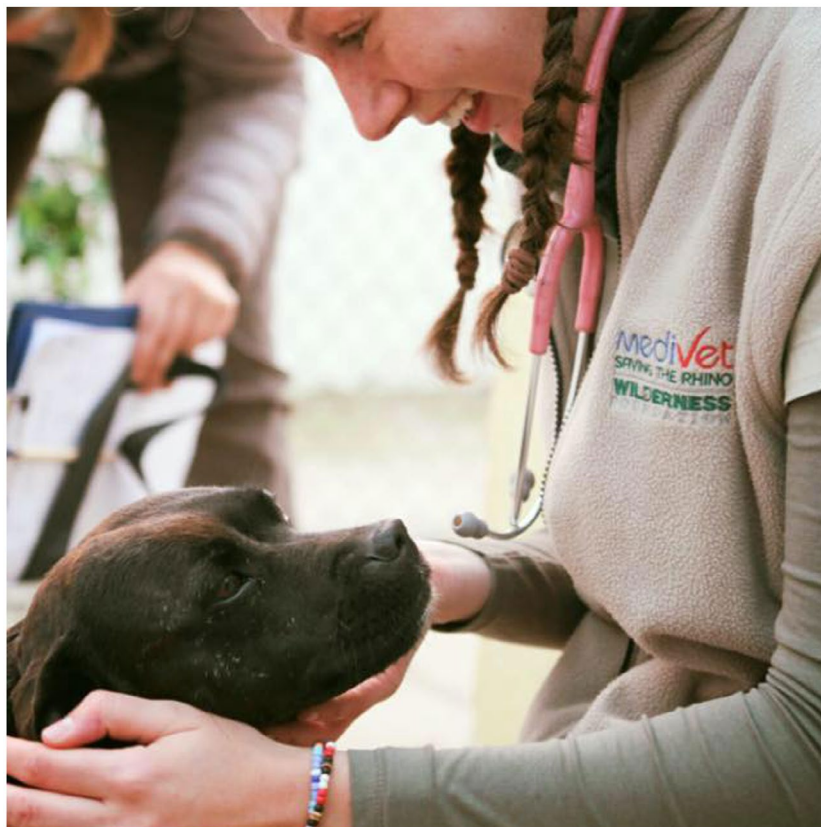
▲ **Figure 4.** Group of Vets Go Wild students with a lioness chemically immobilised for placement of a contraceptive implant



▲ **Figure 5.** My first giraffe procedure on my Vets Go Wild course 2016



▲ Figure 6. Practising darting using a paintball gun from a helicopter



▲ Figure 7. Completing a health check on a dog at Uitenhage SPCA rescued from the Knysna fires

for orphaned rhinos whose mothers have been poached for the illegal rhino horn trade. Both provide an extremely humbling experience and open your eyes to the poverty that many people in the world still face, as well as the horrifying reality of the rhino poaching crisis.

### Master of Science

My African experience affirmed my passion for working with wildlife and I knew this

was what I wanted to do. I thoroughly enjoyed my BSc year and had every intention of completing a certificate in exotics nursing. However, when researching what courses were on offer for nurses I stumbled across the Zoological Society of London MSc in Wild Animal Health. Unfortunately, the course is solely designed for Qualified Veterinary Surgeons; despite this, the course director suggested I apply for their MSc in Wild Animal Biology, and so my next adventure began. The MSc was a one-year

taught course based at The Royal Veterinary College and The Zoological Society of London consisting of modules such as ecosystem health, the impact of disease on populations, surveillance and emerging infectious disease, and chemical and physical restraint of captive and wild animals. The course was divided into three teaching methods: lectures from world-renowned experts in their field, problem-based learning sessions chaired by PhD students and practical rotations working with keepers





▲ Figure 8. Taking a ride in the Wilderness Foundation Anti-poaching plane



▲ Figure 9. Taking blood samples from a male white rhino chemically immobilised for a tracking device change

and vets at London and Whipsnade Zoo, as well as the opportunity to work with the UK Cetacean Stranding Investigation Programme and the Garden Wildlife Health Project. In the summer term of the MSc, you are required to complete a research project. I took this opportunity to create a project that allowed me to research a species very close to my heart, the white rhino. During my first trip to South Africa, I witnessed first-hand the horror of the illegal poaching trade and the struggle that wildlife vets have to endure when attempting to save rhinos that have been mutilated for their horn. I contacted Dr Fowlds to meet up next time he was in the UK and we devised a project to not only help him in his work with rhinos, but also to help wildlife vets across

the Eastern Cape when treating future rhino. The project entitled “Evaluation of biochemical data collected from chemically immobilised semi-captive Southern White Rhinoceros (*Ceratotherium simum simum*) in the Eastern Cape, South Africa” allowed me, with the support of Vetwork UK, to return to South Africa for three months to investigate the effects of prolonged chemical immobilisation and establish a set of biochemical reference intervals for wildlife vets to use when treating injured or traumatised white rhino. Alongside completing my research project I had the unbelievable opportunity to complete a wildlife veterinary internship with Dr Fowlds and his team.

## A summer in South Africa

The internship was a big step up from Vets Go Wild, allowing me to experience exactly what it takes to be a wildlife nurse.

During the first week of my three months I was straight in at the deep end, assisting one of the vets, Dr Emily Baxter, with a mass capture of Waterbuck – while the vet flew above darting from a helicopter, I was in the back of a truck with a ground team driving through the bush, and the first to reach the antelope to administer partial reversal, prophylactics and any additional sedatives. For me, the best way to learn is by doing, and this internship definitely ticks that box.





▲ **Figure 10.** Using telemetry to track a female cheetah and her cubs



▲ **Figure 11.** Cuddling piglets we treated with burnt feet at Uitenhage SPCA

Not only did I utilise my domestic animal skills on anti-poaching dogs, township dogs and livestock, I developed my wild animal veterinary skills and learnt an entire set of new skills that I could never have imagined. I learnt how to fly an anti-poaching plane and a helicopter, how to successfully dart wild animals from a vehicle and from a helicopter, how to fish, how to fly a drone, how to track and how to use telemetry.

A typical day ran from dawn until dusk, usually starting at 5 am. Each day began with prepping the vehicles with the equipment needed for the planned procedures including consumables, drugs and portable diagnostic equipment such as the ultrasound machine and blood machines. We

often had multiple procedures in one day which involved careful planning to ensure we had all the necessary equipment. Once the vehicles were ready the team would then congregate at Amakhala before making their way to each reserve. Some of the common procedures the vets regularly undertook included: translocating wildlife, wound and trauma treatment, drop-out darting wildlife with anti-parasitic treatment, DNA testing, fitting contraceptive implants in carnivores; with Dr Fowlds focusing primarily on rhino procedures such as treating poached rhino, de-horning rhino to prevent poaching, pregnancy scanning rhino and providing veterinary treatment to sick and injured rhino. As my project was based solely on rhinos I spent the majority of my time

assisting Dr Fowlds and his wonderful nurse Candice with over 20 rhino procedures throughout the three months. Blood samples were collected and analysed from 19 healthy white rhinos. The results showed significant differences in biochemical values between rhino that underwent prolonged immobilisation and those that did not. A set of biochemical reference intervals was created from the white rhino sampled for use in the field; the results were also added a larger collaboration of white rhino biochemical data for further research. I witnessed firsthand the struggle that this beautiful species faces under the constant threat of poaching every single day. This brings me to the most notable experience I had while in South Africa; the Knysna fires. On 8 June, Dr Fowlds received a phone call from the SPCA to say that Uitenhage SPCA desperately needed veterinary assistance as a result of wildfires in Knysna. The following morning, we packed up one of the veterinary vehicles to the hilt with supplies, fluids, silver cream, bandages and drugs we thought we might need and made the long drive through the garden route to Uitenhage SPCA. We spent the entire weekend, around the clock, providing veterinary assistance to the hundreds of animals affected by the fires, from piglets with burnt feet to puppies suffering from smoke inhalation, cows stuck in burning barns to cats with singed skin. We met many people that had lost family, friends and their homes, along with everything they owned to the fire, but despite this, they still prioritised bringing their animals in for treatment, which was both heartbreaking and humbling. I was blown away by the hundreds of people that pulled together in the disaster; voluntarily bringing water tanks to fight the fires, bringing food, water and bedding for the animals that needed treatment, transporting injured animals to us, donating meals for people volunteering around the clock and giving total strangers a place to sleep. The true compassion we witnessed towards other human beings and the animals affected in a time of such adversity will always stay with me.

By the last week of the three months, I was not only fully competent to provide treatment to a range of wildlife but I was also able to teach 'Vets Go Wild' students myself, purely due to the vast knowledge and guidance given to me by the incredible Ikhala team.

You can sign up for Vets Go Wild courses via Worldwide Experience at [www.worldwideexperience.com/vets-go-wild/](http://www.worldwideexperience.com/vets-go-wild/) or you can email the team at [enquires@worldwideexperience.com](mailto:enquires@worldwideexperience.com)