 ongoing professional development?

## Special report

27 2 , Saving the Sumatran rhino with ErBenn Bryant of Taronga Westem Plains Zoo

## Samantha Trenoweth tracks down Dr Benn Bryant from Taronga Western Plains Zoo to uncover his passion for solving unconventional problems



THE TEAM HAD BEEN GOING FOR 24 HOURS WITHOUT A BREAK,
huddled deep in the Indonesian jungle. The tension among this international group was palpable. They had been together for two weeks, waiting. Then, on June 23, 2012, in Way Kambas National Park in East Lampung, a Sumatran rhino called Andatu was born. It was the first calf born as part of the Indonesian breeding program for this critically endangered species.
"If you're talking career highlights, I'd have to say the all-nighter I spent with the guys at the Sumatran Rhino Sanctuary, monitoring their female rhino, would have to be up there," says Australian vet, Dr Benn Bryant, who was part of the team. "This was the first animal they had managed to achieve a pregnancy with. Those guys had been working towards breeding that animal for 12 years. Observing her have a normal delivery and watching that calf stand and suckle
from Mum was unforgettable. As consultants, we'd considered all the ways things could have gone pear-shaped, and having to manage that in the middle of the jungle was hugely exciting."

Dr Bryant, the senior veterinarian at Taronga Western Plains Zoo in the regional city of Dubbo, New South Wales, was drawn to this career for its challenges. He was also inspired by early exposure to the television series, All Creatures Great And Small.
"It was a program that portrayed veterinary science quite well," he says. "That whole notion of working within the community, indoors and outdoors, getting your hands dirty, exploring science-it presented the whole package quite appealingly and relatively accurately, at least in its essence. I liked the idea of working outside, I enjoyed interacting with animals and I had a curious mind. So I pursued a dream of veterinary science thereafter."

Dr Bryant graduated in veterinary science from the University of Sydney in 1988. He took a job in Far North Queensland for a year, working in a rural mixed practice. He then spent another year in a rural mixed practice in the Hunter Valley in New South Wales before flying off to the UK for several years on a life-changing working holiday. "I was mostly doing locum work for small animal and large animal practices, consolidating my skills," he recalls. "In the UK, I was exposed to exotic pet medicine as well. The Brits have a real history and culture for keeping reptiles and birds and small herbivores. I got exposed to some non-conventional animal medicine, and that was inspiring.
"Some of the most bewildering cases, early on, were rabbit cases. Keeping rabbits as pets wasn't all that common in Australia in those days, so having a client turn up with their bunny and expecting a high level of veterinary care from an Australian was


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Top: Dr Benn Bryant with black rhino, Bakhita, and working at the Taronga Western Plains Zoo's Wildlife Hospital (above).
a bit challenging. You wing it. There were a lot of ferrets, some very interesting birds-a smattering of birds of prey because falconry is practised in the UK. There were occasional other reptiles and various snakes and lizards."

In England, Dr Bryant got the bug for solving unconventional problems and for working with wild life. Back in Australia, he continued working in domestic animal clinics but, in his spare time, he did more and more voluntary work with wildlife.
"I organised some volunteer work at the Australian Museum and at Taronga Zoo," he remembers. "I started doing a lot of WIRES (Wildlife Information Rescue Education Service) work and I started to
develop an appreciation for the nature of the wildlife rescue and rehabilitation side of veterinary medicine.
"One thing led to another and, in 1996, I ended up being offered a locum position at Taronga Zoo, which I took on. That was my first experience of working in a zoo context and that led to more casual work at other zoos. I went to Melbourne Zoo and Adelaide Zoo and also Western Plains Zoo at Dubbo. I eventually applied for an internship residence at Taronga Zoo and enrolled in a Masters of Wildlife Medicine at Sydney University."

Thirteen years ago, Dr Bryant was appointed head veterinarian at Taronga Western Plains Zoo. An open-range
zoo with a focus on exotic hoof stock, Taronga Western Plains Zoo has populations of many African species, including cheetah, hippopotamus, African lion, elephants, zebra, oryx, lemurs, bongos and monkeys.
The zoo is also involved with rhinoceros conservation. Taronga is one of the founding members of the ultimate rhinoceros conservation body, the International Rhino Foundation (IRF) that has an instrumental role in most of the rhinoceros conservation efforts around the world.

Western Plains has populations of white rhino, and black rhino, which are the two African species. The zoo also has a small group of one-horned rhino, which are now endangered in their native Nepal and India.

Research is a big part of Dr Bryant's work, particularly with black rhinos. Reproductive research is critical, given the collapse of rhino populations around the world. The difficulties start with just the physical size of the animals-they weigh over 900 kilos and have bad tempers. Getting the anaesthetic right just to collect semen is the first dangerous step. Too much anaesthetic can kill the animal and too little can cause them to wake and potentially kill the veterinarians.

Taronga Western Plains Zoo has made some great advances with IVF solutions for both the black and the white rhinos and bred some of the few rhinos in captivity. Down the track, the zoo has successfully bred 13 southern black rhinos to date.

It was this expertise with rhinos that led to Dr Bryant winding up in the Way Kambas National Park in 2012.
"We've become involved with Sumatran rhinoceros conservation," Dr Bryant explains. "Not many people are aware that there are a couple of species of


Dr Benn Bryant coordinating the collection of oocytes from a female black rhino.
rhinoceros that occur in Indonesia-the Javan rhino and the Sumatran rhinoand they are both critically endangered. Fewer than 100 individuals remain on the planet. The Sumatran rhinos, in particular, are threatened by fragmentation of populations and habitat loss."

Essentially, this means the animals rarely meet each other and certainly not frequently enough to have an established mating routine. The males can be aggressive and, if not in managed areas, can kill other rhinos. Many of the females have had so little contact with males their reproductive systems have shut down and conception is only possible through IVF.

The Sumatran Rhinoceros Sanctuary in Way Kambas is a managed habitat, where
> "I can remember, from avery early age, having a strong sense that humanity had an obligation for custodianship of the planet."

## Dr Benn Bryant

the animals are able to browse on their preferred plants and live in relative safety. With only one breeding bull available and four or five fertile females, these animals, which once numbered a quarter of a million and ranged as far as southern China, are irreplaceable.
"Rhinos, as a taxonomic group, have been around for a very, very long time," says Dr Bryant. "They're an ancient group of mammal and many, many taxis of rhinos have become extinct. If we can arrest poaching and manage our African rhinos free of that threat, there is no reason why we can't get them back to secure levels. The same goes of the Indian rhino. But the Indonesian rhinos are really staring down the barrel of extinction. We're approaching the sorts of numbers that are incompatible with survival of the species, irrespective of the efficiency of any conservation regime."
An interest in conservation has been a major motivation for Dr Bryant's career. The early '80s campaign to save the Franklin River and the spotlight that shone on biodiversity and the value of preserving habitat gave a context to his interest in wildlife.
"I can remember, from an early age, having a strong sense that humanity had an obligation for custodianship of the planet," he says. "There are big opportunities for zoos to embrace a conservation agenda. Really, that is the rationale that zoos present for their existence. There are ethical and philosophical issues around maintaining wildlife in captive circumstances. The way that we justify
ourselves is to ensure that our zoos are playing a maximal role in the conservation of species."

As Dr Bryant points out, there's more to conservation than just cherry-picking charismatic endangered species. The challenge is to ensure there is enough biomass to support those species that are saved, as well as the other less attractive animals, which are critical to the ecosystem.

Taronga Western Plains Zoo has an involvement in a number of conservation breeding programs. One is a program for breeding and managing African wild dogs, which are one of the earth's most endangered carnivore species. The zoo also holds and manages cheetah for conservation breeding.

The zoo has an interest in conserving Australian endangered species too and is actively involved in the zoo-based Tasmanian devil contingency breeding program. The Tasmanian devil facial tumour disease has decimated the animal's population on its home ground and there is a very present danger they will soon disappear in the wild. Taronga Western Plains Zoo is breeding a population of unaffected animals that could eventually be reintroduced in Tasmania.

Dr Bryant believes he has the best job in the world. He enjoys the challenge-the detective work involved and he is grateful for the opportunity to make a concrete difference to the lives of individual animals and even to the prospects of entire species.
"There are specific challenges that wildlife medicine throws up," he explains, "and it's rewarding to take on a wildlife veterinary challenge and come up with an answer, particularly if that answer can be applied to the better management of the animals in our zoo or populations more broadly in zoos and in the wild. It's very rewarding."


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