

An interview with Dr. Greg Rasmussen, Executive Director and Founder of Painted Dog Research Trust

How did the painted dog first capture your imagination and become such a central part of your career as a scientist and conservationist?

When I was younger, I actually started out as a herpetologist. I loved reptiles and was dead set on studying them for my career, but as a young biologist just starting out in Zimbabwe, I was hungry for all the field work I could get. When I heard news of a painted dog research team who were in need of an extra hand on their next trip, I jumped at the chance.



While out in the field, I heard an interaction between the pack I was following and a lion, and when I got into the bush there lay a severely injured dog who couldn't even lift his head, and I was sure would soon succumb to his wounds. I made the difficult decision to leave the dog – there was nothing I could do for him, so nature was allowed to take its course. The next morning, I returned but the dog was missing and drag marks were seen from the spot. I assumed hyenas had found a free meal.

However, after following the marks, I discovered to our surprise that the dog had been dragged into a thicket by the rest of its pack. Over the course of a few months, the pack proceeded to feed this injured dog and aid in his recovery, literally licking his wounds, until he had regained his strength. It was then that I knew I would dedicate my life to painted dogs. They were simply too fascinating not to study!

The painted dog has been more commonly referred to as the African wild dog. Is this alternate name a way of dispelling negative stereotypes about the species? If so, what kind of stereotypes do you have to confront during your work?

The name "painted dog" is indeed about dispelling stereotypes. As I learnt more about the dogs and spent more time with them, I realised they were a hugely misunderstood species. Back in the 1980s when I was first beginning my studies, these "wild" dogs were meant to live up to their name – they were seen as savage killers, as vicious four-legged piranhas that ate their own kind. This was the view that my mother held when I first told her I was studying wild dogs. She went to the library and must have picked up a particularly harrowing take on the species!

Needless to say, Mum was not particularly enthused about my new research subjects, but my first proper interaction with the dogs helped to dispel any misgivings. I was out in the field, sleeping 50 yards away from a pack of 11 dogs. When answering the call of nature in the morning, I was suddenly surrounded by them. I thought, well, Mum will know how savage they really are now! But all they were was curious. I realised that the dogs had gotten a very bad rap over the years, and by studying them and sharing their story, I had the opportunity to become a voice for the species.

Could you tell us more about the work done by yourself and the Painted Dog Research Trust?

For our day-to-day work, we collect and monitor baseline information on genetics, parasites, faeces, etc. This allows us to keep track of population health in a particular area. We also fit satellite collars and analyse the data that we receive, so we can determine how the dogs are using the landscapes that they're a part of. An average pack's territory is around 750km² – that's a big area to survey! Satellite data helps us to find out which places are important for the dogs and thus which places are important for further study. We also fit anti-snare collars, which are riveted and reinforced to prevent dogs choking to death when caught in a poacher's snare. To test that the collars are safe and do their job, we employ domestic dogs to run through benign snares while wearing them.

When I'm travelling, I do two presentations a day and very rarely have any time off – the jet-set lifestyle isn't quite as glamorous as it sounds!

The painted dog is listed as Endangered by the IUCN, with only a few thousand thought to remain across the whole of Africa. What are the main threats facing the species today?

Human-wildlife conflict is the big one. They're caught in snares set for other animals, they're hit by cars, they're shot by farmers and ranchers who want to protect their livestock. Even film crews and the tourism industry can play a role, as well-meaning people setting out to film a documentary or find the dogs on safari can inadvertently disturb their dens, which can cause a pack to move. Pups can be lost on the move while the dogs find a new den. Often the opening of tracks to take people to dens assists lions and hyenas to find the dens, and the dogs will have to move more often than they should, disrupting their feeding habits and endangering any young whose place of relative safety has now been compromised.

Tourism has also contributed to changes in habitat that can negatively affect painted dog populations. For example, the elephant population in Hwange National Park has jumped from 2,000 to 44,000 over the last few decades. This is great for elephants (and for tourists seeking elephant sightings), but the deforestation that they cause means that Hwange's other herbivores suffer, which in turn affects predators like the painted dog. They are also pumping water from boreholes year-round to improve wildlife-viewing. Elephants gather at water aggregations and destroy the vegetation there, an additional detriment to painted dogs who are mainly ambush predators that prefer thickets. In Hwange, the dogs' standard hunt success rate of 80% has dropped to 70% or less.

High-speed roads through national parks are another threat. Hwange sees an average of 2.5 fatalities and four broken legs a year, which may not sound like much, but these cases can impact hugely on painted dogs as they are highly social pack animals. When an alpha in particular dies, the pack collapses.

How does the social structure and behaviour of painted dogs compare to that of other wild canids?

They have the perfect social system. The hierarchy of a pack, and the presence of an alpha breeding pair, means there is little intra-pack conflict or leadership challenges, as is often the case with other animals that live in groups. I've observed a beta male assuming control of his pack after the alpha was injured by a snare, then stepping down without a fuss once the alpha was back to full strength. An alpha will also engage in submissive behaviour to its pack members when he/she has messed up. You learn a hell of a lot watching these animals.

Painted dogs are so good at division of labour too, from the alphas and the betas all the way down to the gammas, as we call them. I remember one particular dog who was hopeless. He was always getting lost, so naturally we called him Magellan. He was hopeless at finding his way around and he was hopeless at hunting, but his pack would still make sure he'd get his fill, even going so far as to regurgitate food for him after a kill, just like what they'd do for a pup. But even Magellan occasionally got his chance to shine when he was chosen to defend the den while the rest of the pack went hunting, as there is a "fire rating" of danger that informs which dogs (and how many) stay with the pups when others are on a hunt. There really is a Three Musketeers mentality in painted dog society – all for one and one for all!

The wildlife of Africa has been decimated over the last few centuries, with an increasingly large number of iconic species now facing extinction. The plight of lions, elephants and rhinos is well known, but how do painted dogs fit into this picture? How important are they to African ecosystems, and what value does saving the species hold?

Painted dogs travel huge distances and move game around as they do so, which prevents herbivores from overgrazing and thus damaging an ecosystem. They also won't touch prey within the first kilometre of their den in order to prevent it from being discovered.

They are nomadic, keeping herbivore herds moving and on their toes, so it's not just about managing prey populations to prevent them getting out of control, as all predators do. This ensures a healthier ecosystem for all!

The species is a flagship for conservation – it cannot live in isolation. Large (and this is important) connected protected areas will help them thrive. Transfrontier parks stretching over multiple painted dog range states are in the works, which could be a dream come true.

Is there a single achievement that stands out over the course of your career in protecting the painted dog?

In the past, painted dogs were often blamed for killing cattle in Zimbabwe. This played into the negative stereotypes that many people held about the species at the time. When we began to really look into these claims, however, they just didn't hold up. Between 1987 and 2003, the hard data showed that 50% of cattle losses in Zimbabwe were the result of bad management. 17% of losses were due to cattle ingesting plastic or other manmade waste – including a shoe! It turned out that less than 2% of cattle losses could be attributed to Painted dog predation.

One solution we thought of was to fit the dogs with fake satellite collars, which we hoped would deter anyone from either harming the dog or removing the collar. Remember, this was 25-30 years ago! The collars also had a brass plate that identified the dogs as an endangered species and provided a number that could be called if a dog or collar was found. We were thrilled to see evidence that this method was working, but the real turning point was the first prosecution, after a farmer was found to have destroyed a collar. He received a 6-month sentence, which sent shockwaves through Zimbabwe and had a big knock-on effect for the welfare of the painted dog in the country. You have to go back to 2003 for the last time a painted dog was shot in Zimbabwe.

Another proud moment for me was winning the WildInvest Continuation Award for Conservation at the 2001 Whitley Awards (known as the "Green Oscars" of the conservation world), hosted by Princess Anne.

Who is your own personal Natural World Hero and why?

As is the case with many other naturalists, Charles Darwin has been hugely influential to me, as much for his attention to the smaller and often overlooked parts of the natural world as for his revolutionary theories. He had a great interest in pollination, and the relationship between plants and insects. For all his famous travels to the Galapagos, he was just as fascinated with studying the interrelationship between clover and a bee's proboscis in an English garden. More than anything, he taught me how to think.

The famous Gerald Durrell was the one who first inspired me to come a naturalist. I read every single one of his books and finally got to meet him, before he passed away. He really brought his writing to life.

Also, Donald Broadley, a museum curator at the Natural History Museum in Zimbabwe who really was the world authority on African reptiles. I spent many a school holiday at the museum as a young boy taken on field trips with him; Don always had time for children that were focused and wanted to learn, he never dumbed his science down, and would share the minutest detail. So, I was lucky that in spite of my incessant questions I had a mentor! This is something I've carried into my own career – I never get tired of the kids' enthusiasm when I head out on my speaking tours or village visits. I just want to share and inspire.

What has been your best natural world experience to date?

On one occasion, I was parked up in a 4x4 just 200 yards from a den, well within audible range. Under a full moon, I heard some commotion coming from the direction of the dogs. A few itinerant females were vocalising outside of the den, trying to draw out the males from within. But in doing so, they gave away

the den's location. Not long afterwards, I spotted a seriously big male lion in my rear-view mirror, making a beeline for the dogs, and soon enough a pack of five hyenas had also begun to approach.

The danger wasn't lost on the dogs, with the whole pack leaving the den to confront the interlopers. Only the alpha female stayed behind, protecting the pups. An aging alpha male who I called Oldboy – who must have been around 10 years old at the time – came and stood in the middle of the road. His pack stood all around him – it was like watching the haka! Suddenly, most of them hauled arse in another direction, as a leopard was making its way towards the den. The dogs managed to chase it up a tree, and the hyenas soon followed, with the dogs working as a team to rout the predators. Now there was just one problem to deal with: the lion.

Finally, Oldboy began to move, advancing upon the lion at the head of his pack in a wedge formation. Oldboy took the lead, facing down the lion. At the same time, the rest of the pack formed a circle around the lion. With the lion encircled, the beta male came to face it. With its attention focused on the beta, the lion didn't notice Oldboy moving to his rear – where he delivered three serious bites to the lion's testicular area! This was enough to see him off, and the lion scarpereed with his tail between his legs. Seeing the level of organisation that these dogs were exhibiting, my jaw dropped! Alongside my first ever encounter with the dogs, this is without a doubt my most memorable experience in the field!

What natural world insight would you like to leave us with?

Conservation has seemed at many times like a lost cause, but I truly believe that we can reverse the mess we have made. We can only do this if we work together though. We have to support each other and help each individual to make a difference – what's more, we have to all be conservationists. If the public decide that conservation is important to them, then the politicians will follow. This is how things work. In Africa in particular, empowering women in conservation is of vital importance. Women are flocking to study the field of environmental science here, and all the better, as we need as many voices as we can get. It's not a coincidence that we refer to our planet as Mother Earth!

I think back to 2003, when I was involved in a light aircraft crash in Hwange, breaking more than 30 bones in my legs and feet. I was at a crossroads: Did I want to live, or did I want to die? "I've achieved a hell of a lot," I thought, "and if I get killed fighting for conservation, so be it." I thought about those tales of hunter-gatherer societies, where elders would walk off into the bush to die alone, so that they wouldn't be a burden to their tribe. But then, I had another thought... "S#!+, there's so much work still to do!" It was conservation screaming at me. I spent 36 hours in the wilderness before I was rescued, sheltering from the sun under the fuselage of my wrecked plane and banging on the aluminium hull to deter angry elephants, lions and hyenas. That was 20 years ago, and I'm still not finished!

What we need in conservation is education, and a critical mass of conservationists – it doesn't have to be someone with a biology degree, just someone who cares about their environment!