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OFF THE Beaten Path

*How an interest
in travel, animals,
health and the
environment aligned*

JESS LIN '04

WHY VETERINARY MEDICINE?

When I graduated from Brentwood in 2004, I wasn't going to be a veterinarian. I had always loved animals, but somewhere in between middle school and actually going to university, I decided that becoming a vet would be "too hard," and I fell into that wonderful category of students who finished high school not really having a clue as to what they wanted to do with their lives. I proceeded to bounce between studying, working (I quit uni "forever" twice) and travelling, awaiting inspiration. Unexpectedly, it was six months of backpacking extensively through China and SE Asia with my sister in 2007, which gave me the insight and motivation to envision a role for myself in the world. Over those 6 months, I was repeatedly confronted by the condition of the animals and environments I encountered, and although none of it came as a surprise, the degree to which I was dwelling on it all, did. I felt frustrated by my conflicting desire and inability to

▼ Veterinarian Jess Lin '04 works on one of her many patients



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do something about what I was seeing around me and decided that I needed to acquire a skill set which would allow me to contribute something more than just tourist dollars to the places I travelled. A skill set which would give me the flexibility to live and do meaningful work anywhere in the world. For once my interests in travel, animals, health, and the environment seemed to be aligning... and it was time to go back to school.

THE VET SCHOOL SAGA BEGINS...

In 2008 I embarked upon my journey to become a veterinarian, which saw me shift my life across the world to Perth, Western Australia. I knew this degree would be long and arduous, however I didn't anticipate that I would hit enough roadblocks along the way to draw out my studies by an extra 3 years. Such is life. But what I also hadn't anticipated, was that those supposed roadblocks would in fact prove to be much-needed detours, and that my "scenic route" through vet school would provide me with extra time for some of the most important and inspiring experiences of my yet-to-truly-begin career.

OH THE PLACES YOU'LL GO...

The word "veterinarian" will usually conjure up images of a white-coated doctor in a sterile clinic, tending to much-loved household pets. It wouldn't normally bring to mind someone racing through South African game reserves capturing giraffes and buffalo, or navigating the labyrinth of an Indian slum to tackle Rabies in the Himalayas, or teaching school children about parasites and skin disease at the Thai-Burmese border, or camping out in the wilds of Australia working with everything from platypuses to feral dogs... but those are exactly the sorts of experiences I have relished in over the last few years, while discovering just how multifaceted a career in veterinary medicine can be. I've become particularly interested in "one health" because it is an holistic approach to health care in its entirety, based on the understanding that humans, animals and their environment cannot be treated as separate entities if we are to effectively attain optimal health in any and all of those areas. People make



▲ Makeshift surgical suites in East Kimberley, Western Australia

the mistake of categorically separating themselves from nature, but if we are to take care of ourselves, we must take care of our environment, including the other creatures we share it with.

My most recent excursion was this past June, when I travelled to the East Kimberley region of Western Australia to three remote aboriginal communities bordering the Tanami Desert. I was selected for one of six student positions in a new public health initiative to improve the health and welfare of the people and animals living in these communities by providing free sterilization surgeries on the resident dogs. Five classmates and I, along with the project coordinator—veterinary epidemiologist, Professor Ian Robertson—and one government health worker flew 2.5 hours north from Perth to the pearling town of Broome, where we then packed up all the food and gear we'd need for the whole two weeks into multiple 4WDs. From there we set off on the 11 hour drive inland to our target communities, passing endless

termite mounds, giant boab trees, saltwater crocodiles, a spectrum of bird species and even a rogue camel along the way. Completing our team, was a crew of local environmental health workers—and a designated chef!

We were all buzzing with excitement at being a part of this inaugural trip, and pondering the uncertainty of exactly what we were in for. Professor Robertson has been organising remote spay trips east in south-central Western Australia with final year vet students



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from Murdoch University for a number of years, however, this was the first time a trip was organised up in the Kimberley. So although the surgical side of things would be similar to other trips in terms of what drugs and techniques we'd be using, everything else was going to be completely different. What sort of facilities would we have access to? Would they be suitable for surgery? Where would we be sleeping? How would the locals react to our presence? Would they be amenable to us operating on their dogs? The questions were many, but without having had this sort of project go ahead in this region before, there was no telling whether we would be the first of many, or the first and last to do it.

BRING ON THE DOGS!

We visited the communities of Balgo, Bililuna, and Mulan, the populations of which ranged from about 150-400 people. If you look them up on a map, you will see why the basic resources that we take for granted in the city—access to regular health care, clean drinking water, education and employment—are few and far between in the outback. It comes as no surprise that veterinary care is a rarity, at best.

As we arrived at each community, it was immediately apparent that the dog populations were beyond "healthy." Dogs roamed around on their own and in packs, and the abdomens of most females bore udder-like teats—evidence of litters past and present. In each community, we set up makeshift surgical suites in whatever building was made available to us. This was generally the town office, which would close for a few days to allow for us to clear their furniture to one side, and set up our makeshift surgical tables and



◀ Some of the 60 dogs awaiting their procedures

various gear. While we sussed out how to best arrange everything inside, the boys outside set up temporary holding kennels from old metal window screens and cable ties. Meanwhile, a team was out finding people who'd like to have "the girly bits" removed from their dogs.

We had three surgeries on the go at once, working in teams of two—one surgeon, one anaesthetist—alternating roles between surgeries. There were no fancy anaesthetic or monitoring machines, no team of nurses to help us out, and we relied on our headlamps for decent lighting. The spays were more challenging than those we would normally encounter in suburbia, because most of the dogs here had had at least one (often many more) litter of puppies, which meant that their tissue and blood vessel development was quite extensive—nothing like the young dogs we'd be seeing in normal practice! This meant that extra time and attention was paid to stop large bleeding vessels and to gently handle friable tissues. Adding to the pressure was the fact that we had a very limited supply of IV fluids, so avoiding significant blood loss was crucial. Keeping us entertained were the streams of curious local

children, who would stop in to watch us do surgery throughout the day!

WHY TACKLE DOG POPULATIONS?

Amongst the strays, many aboriginal families do own pet and hunting dogs, however there are no means of confining them properly, so all the dogs in the community are free to roam as they please. They're known as "camp dogs" and their excessive numbers contribute to the spread and perpetuation of diseases ranging from minor skin infections to the more serious and potentially fatal hydatid disease.

Furthermore, many dogs can be quite aggressive; the locals call them "cheeky dogs" and there is no shortage of dog attacks in the Kimberley. Just earlier this year in fact, an attack on a young woman proved fatal. Given that a female dog can have two litters of up to 10 or more puppies each year, it is easy to see how this proliferative population growth quickly renders unregulated dog populations out of control. The dogs themselves also suffer under these high populations, because unsterilized animals are prone to a myriad of reproductive and cancerous diseases for which they receive no veterinary care, not to mention the untreated cases of dystocia (birth complications), Parvovirus (severe, highly contagious diarrhea which kills a lot of puppies), and dog fights. The list goes on!

CROSSING BOUNDARIES

The combination of geographical isolation, an extreme natural environment, and chronic socioeconomic issues means that life in these remote communities is paradoxically both very simple and excruciatingly complex, and the array of problems faced by the

people living out there warrant no easy solutions. The areas we were visiting were not tourist areas, and as a team of outsiders coming from Perth and the West Kimberley, we had to be extra-conscientious about how we presented ourselves in such a culturally-sensitive realm. Although we were there to perform surgeries on dogs, a primary objective of this initiative was to establish positive relations with the locals. As the first project of its kind, it was paramount that we not only performed our surgeries well, but also that we left a good personal impression. The goal was to open the door for future animal-control projects to continue the work we started, as well as for the environmental health workers to be able to come back to these communities and address more directly-related housing and human health issues.

The beauty of animals is that they have the ability to soften social boundaries, and provide a conduit for human interaction. Across cultures I have found that people let their guard down and feel less confronted when the focus is on their animals, and this rung true in rural Australia too. Although the communities knew that we would be coming, we still didn't know how they would take to us



▶ A rogue camel from the Tanami Desert in Western Australia



▶ Two surgical teams at work

actually being there. There is a certain degree of tact and trust required to come into a sensitive community and try to initiate changes in peoples' lives—even if they will benefit from those changes—so we were pleasantly surprised at how eager the people were to have their dogs sterilised by us! The road to improving lives in these communities will be a long one, but by starting with the dogs, we could build relationships with the locals and allow them to see the good we could provide—paving the way for future community improvements.

When our fortnight came to a close and we were leaving Balgo, I felt a sense of accomplishment when an elderly aboriginal woman flagged us down and approached our car directly, to ask if we could sterilise her two dogs. "We'll do them for you next time," Professor Robertson told her, quietly confident that our trip had been successful on all levels and that he'd be back with more students to build on the foundation we'd laid.

THE GOLDEN QUESTION... DID WE MAKE A DIFFERENCE?

We sterilised nearly 60 dogs (not bad considering so much time was spent driving, setting up and packing down), and many were in various stages of early pregnancy, which meant that we effectively doubled the number of breeding animals that we took off the streets. We made a fantastic start to what needs to be a continued effort, and so long as there is funding for future trips, the spay clinics will be effective at stabilising the dog populations in these communities over time. The key is to keep coming back regularly to minimise the number of breeding females, because then only small-scale spay clinics will be periodically required. At least for now, there are 60 fewer dogs in those three communities that won't create puppies ever again, and the community members can look forward to more stable dog populations and resultant health benefits in the years to come. Healthy dogs = healthy environment = healthy people!



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