

# Optimisation of *Leptospira* isolation from reservoir vertebrates under field conditions

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I applied for a summer project not knowing much about the research side of veterinary science, and just wanting to have a go at something a little more interesting than your routine dog and cat vet practice. The project was part of an existing AB-CRC funded PhD project looking at leptospirosis in flying foxes being conducted in north Queensland. My project centred around comparing techniques to optimise the recovery of leptospire from flying foxes. After some slight hiccups and series of rabies shots the research work began up around the Cairns area, but due the lack of flying fox cadavers the sampling was increased to include rodents being trapped under these colonies.

Being from North Queensland myself, I knew that typically it can get hot, wet and humid but what didn't help was that it was one of the biggest wet seasons up north for quite a while, and the sites at which we were trapping were fast disappearing underwater. In spite of this, we continued with trapping and gained low but steady numbers of rodents. The process involved anaesthetising the trapped animal before euthanasing it and then taking a number of different samples for analysis. This included: biopsies of kidneys and placement in EMJH medium for transport to Qld Health Labs in Brisbane for culture and identification; collection of blood and tissue samples for PCR identification of *Leptospira* presence; flushing of the bladder with EMJH media for isolation of *Leptospira*; and making tissue smears of the remaining kidney tissue of for immunohistological staining.

I had no real idea about research work until applying for this project, but did enjoy the Infectious Diseases part of the bacteriology component of the Veterinary Science course I do at Queensland University. There is very little work experience around for this field of study, so I applied for the summer vacation scholarship to try this line of work and it turned out to be great. It was exciting, but at times monotonous, though I have to say it was on the whole a really interesting and enjoyable experience. This summer project has given me the opportunity to experience a side of my degree that very few people have had a chance to appreciate, and to discover how rewarding research work can be. Upon finishing my degree I hope to go back to North Queensland to work and hopefully continue participating in research work. A big thank you to Suhella Tulsiani and Rowland Cobbold who made my project possible.