

Blood, sweat and tears in raptor research

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Credit: Murdoch University

Murdoch University Ph.D. candidate Simon Cherriman is enjoying the relative safety of his home office after spending much of the last six months scaling trees and attaching satellite tags to 13 feisty juvenile Wedge-tailed Eagles.

Simon is investigating the lives of these charismatic [birds](#) of prey, including tracking where they fly using GPS tags, learning more about

their breeding habits and territories and understanding the threats they face.

Unfortunately the fragile lives of wild juvenile eagles were brought into focus recently when Simon discovered that two of the birds he tagged just over 12 months ago had died in remote locations in Mid-West Western Australia.

"Natural mortality in [juvenile birds](#) is known to be high, especially in predators at the top of the food chain," Simon explained.

"It is sad to discover birds I felt emotionally bonded to had met their end, but an advantage of having these birds tagged is that I am able to locate and recover the body to investigate the cause of death. Without the tagging technology, this would be impossible and has prevented research into the causes of juvenile mortality previously.

"The data from the tags on these birds contributed to knowledge of Wedge-tailed Eagle movement ecology and so is extremely valuable. One bird traveled more than 3,000km since leaving its nest.

"Wedgies are not an endangered species, which for me emphasizes the importance of understanding more about them now, because research can often be left until it's too late."

Recently Simon spent time observing how one of the birds – named Kwidi – responded to its GPS tag, which was carefully fitted like a small back pack in December 2017.

"I constructed a tree-hide so I could observe Kwidi before she fledged. Wedgies are very sensitive to any sort of human disturbance so this was the only way I could keep watch and see if the harness-mounted tag bothered her," he said.

"I would arrive well before first light in the morning to ensure I was not detected and tried to remain as still as possible during each hide stint, noting down anything significant in Kwidi's behaviour. What was amazing is she didn't look at the tag once – the dead bobtails her parents brought her were clearly far more interesting!"

Simon says his lifelong passion for the birds motivates him to go to such extraordinary lengths to learn more about the populations in his two study sites: the Perth Hills, and the remote Matuwa Indigenous Protected Area.

His physically demanding research involves climbing barefoot up trees to reach nests up to 30 metres off the ground. From this precarious position Simon must calmly capture a juvenile chick, lower it to the ground, and then take measurements from these large creatures.

"The perception of eagles is they're aggressive and want to tear you to pieces, but most birds I've handled are incredibly placid. They have a magic and gentle aura about them." Simon said.

The fiddly process of attaching the satellite tags like back packs to the eagles is completed as quickly and calmly as possible, so the bird can be returned to its nest with minimal fuss.

And this process does not reflect the hours of work Simon puts in beforehand to locate the nests, establish whether breeding has been successful and ensure he goes through the tagging process at just the right time before the young birds take their first flights from the nests.

The next fieldwork intensive period of his study will be to catch and tag five pairs of adult wedgies during the winter, prior to the breeding season, from each of the study sites.

"This will help me to understand more about the home ranges of the adult birds and how they differ at the two study sites," Simon explained.

None of his tagging work would be possible without the funding to purchase sophisticated satellite tagging equipment. The Goldfields Environmental Management Group has sponsored Simon's arid-zone research since 2015, and more than 250 individuals have contributed funds to the project via crowdfunding. The WA Department of Biodiversity, Conservation and Attractions' Parks and Wildlife Service continues to provide in-kind support.

"For me, one of the highlights of carrying out this Ph.D. project has been the wonderful support I've received, both in the form of corporate sponsorship and volunteer assistance in the field. It's fantastic to know so many other people care."

Provided by Murdoch University

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