



"AS I CROUCHED DOWN TO PEER AT ITS LEG, THE BIRD COMBED MY HAIR GENTLY WITH ITS BEAK."

Close encounters of the bird kind



By Jesse Blackadder



Julie McInnes woke up in the dark, pressed down by a solid weight. It hadn't been there when she fell asleep a few hours earlier, tucked under her mosquito net in the balmy Madagascan forest, where she was a volunteer field assistant on a project researching Madagascan paradise flycatchers.

"I opened my eyes to find a large snake curled up on my chest, enjoying my body warmth," says McInnes. "As you can imagine, I got out of there pretty fast. Luckily it was a non-venomous boa."

It's been a long journey from Madagascan ground boas to albatrosses, which McInnes is now researching, but two themes have been constant in her work: creaturely close encounters and remote locations.

Studying songbirds in Madagascar as an undergraduate opened her mind to the extraordinary world of birds,

and she returned home from that trip - her first experience of remote fieldwork - deciding to make feathered creatures her speciality.

It was a timely decision. Fascinated by cephalopods (squid, cuttlefish and octopus), McInnes had already begun studying marine biology. But a serious car accident half way through the degree left her with a punctured lung - which meant scuba diving was permanently off the agenda.

"I switched to studying creatures that lived above the water instead of those underneath it," she says. "The more I learnt about seabirds the more I admired them. They live in such extreme environments and travel such incredible distances."

As a seabird ecologist, she has since researched species ranging from the diminutive little (or 'fairy') penguin, which stands just 33cm

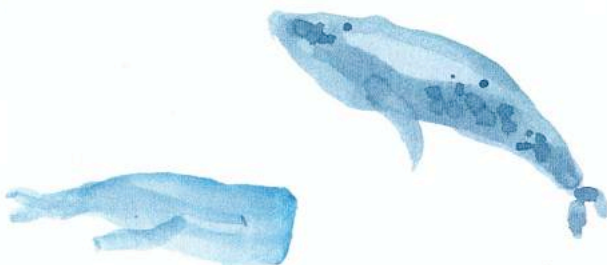
high, through to the wandering albatross, one of the world's largest birds with a wingspan stretching a majestic three metres.

Albatrosses are inveterate travellers, their long wings allowing them to glide on wind currents, expending very little energy while soaring vast distances. They've been known to fly thousands of kilometres on a single foraging trip. One grey-headed albatross was clocked circling the globe in 46 days.

Following in the tracks of seabirds large and small, McInnes has become a veteran of outdoor field life, making short-term homes in remote locations few people will ever see. Since graduating, she has studied yellow-eyed penguins at Stewart Island (south of New Zealand), Adélie penguins at Béchervaise Island (in Antarctica), and large seabirds - albatrosses and



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petrels - on Macquarie Island (half way between Australia and Antarctica). For recreation, she recently headed to Scotland and observed a colony of puffins.

"Remote fieldwork is a particular kind of life," she says. "You don't have a house, you often don't have a job to come back to, and when you return to the real world, you feel quite lost. But the things you see and the interactions with wildlife are incredible."

While her subjects may have varied, encounters continued. "One day on Macquarie Island I crawled close to a wandering albatross to read its leg band," she says. "As I crouched down to peer at its leg, the bird combed my hair gently with its beak. It was one of those fleeting, special moments that come out of the blue when you're studying wildlife."

However McInnes has just started a PhD in which she aims to have fewer - rather than more - encounters with wild birds. Her research, working with molecular ecologist Dr Simon Jarman, is pioneering the use of non-invasive DNA methodologies to ultimately help protect albatrosses.

"Albatrosses are one of the most threatened seabird groups, affected by long line fishing and by climate change," says McInnes. "They're an apex predator, which

means they can be used as an indicator of ecosystem health and changes. Understanding their diets is vital to assessing the risks facing them. But diet information is non-existent for many species."

It is extremely difficult to gather diet data on albatrosses without disturbing them. Traditionally researchers investigated what seabirds were catching and eating by forcing chicks to regurgitate the contents of their stomachs, which could then be analysed.

"As an undergraduate I was very caught up in the questions we were trying to answer about evolution and behaviour," says McInnes. "It was easy to forget the actual birds in front of me. Even weighing and measuring them is invasive, though the data is important."

"By the time I got to Macquarie Island I was working with some really threatened species and we just couldn't be hands-on in that way. I had worked with an amazing penguin ecologist, Dr Andre Chiaradia, who was always looking for ways to reduce bird disturbance. For example, instead of catching and weighing penguins, he set up a weighing platform that they just walked over in the course of their day."

"Working with Andre was a turning point. Through him I came across the diet analysis technique where you

could collect penguin chick droppings and analyse the DNA to find out what they were eating. In many cases, the birds didn't even know you were there."

McInnes' new PhD research, through the University of Tasmania and the Australian Antarctic Division, is applying this DNA-based dietary technique to albatross species, again, involving remote fieldwork. She is collecting scat samples from Albatross Island in Bass Strait and is hoping



Photo by Julie McInnes

to travel to the Islas Malvinas to collect samples.

In looking back over her various remote homes, McInnes says that Macquarie Island, where she spent three summers and a winter, remains one of her favourite places. The Australian Antarctic Division maintains a permanent base and five field huts on Macquarie Island, staffed by 30 people in summer and 15 in winter.

"No internet, no phones, no bosses watching over you, you live your job 24 hours a day, the wind is relentless and it rains on four days in every five," McInnes says. "Most of the time I was in a field hut with one other researcher, 30 kilometres from the main station. There was a penguin colony outside and it was like living in the middle of a David Attenborough documentary. I adored it."

After her stints at 'Macca', she spent two summers in

Antarctica. Béchervaise Island, where she and a research partner monitored Adélie penguin numbers and behaviours, is just a hop across the water from Mawson Station. But for six to eight weeks when the sea ice melts, researchers can't get off the island. It's two people, two pod-like 'apple' huts, 3,000 penguins and a few hungry skuas. Once again, McInnes was in her own particular heaven.

"Antarctica is an extreme environment and you always have to be prepared for the worst," she says. "You're always with a buddy, you always carry a bivvy bag in case you need to make an emergency camp, and you're always in radio contact with the station. The weather is the dominant factor that affects everything."

McInnes' email bulletins home entertained friends with tales of island wildlife, including the albino penguin who looked like he'd lost his dinner suit, and the plump Adélie who got stuck when he tried to follow slimmer buddies through a hole in the ice.

But someone new was reading her missives - and missing her. A human encounter had changed

McInnes' world.

"When I was single it was fine being out in the field - I was just living that amazing life and nothing held me back," she says. "However, I met Jen three years ago, just before I headed to Antarctica, and it changed things."

This year McInnes and her partner are, for the first time, living and working in the same city. They've just purchased a bush block near Hobart.

"I have a home base and a partner to come back to now," says McInnes. "It's about getting the balance right. As much as being with her is part of me, being outdoors is part of me too."

"There's something that comes over me when I'm outdoors, a feeling of awe or joy. I can't stop smiling. It's pure happiness."