writer and photographer TERRY MULHERN

Inside the mountain

On Christmas Day, while most people had their feet up and were digesting their lunch, I found myself on kunanyi, clambering down a precipitous boulder field below the towering rock pillars of the Lost World, high on the mountain's northern slopes. I was in pursuit of invertebrate biologist Niall Doran.

I plodded, slipped and stumbled after the lanky Doran. Repeatedly, he politely waited for me, allowing me to catch up, before striding on purposefully, pointing out the plants, animals and amazing geology around us. As I caught my breath and mopped my dripping brow, I recalled he'd assured me that this would be "an easy, 20-minute" side trip on our primary expedition. That was half an hour ago. And I'm pretty sure we had a considerable way to go yet. When a fieldwork-toughened ecologist tells you how long it will take to walk somewhere, double it and add a bit more.

We were following in the footsteps of a young English biologist, Geoffrey Watkins Smith, who climbed kunanyi at Christmas in 1907 in search of freshwater crustaceans. You might think Smith and I were both victims of a practical joke, and that this is the last place you would find such creatures. But like me, Smith was in search of a unique Tasmanian animal – the mountain shrimp (*Anaspides tasmaniae*).

When I met Doran at Fern Tree at the base of the mountain, I imagined we'd need to walk miles to some secret hidden tarn to find the shrimp. But our search was over within minutes of parking the car near The Springs, less than halfway to the summit. Doran led me a short way up a track to a small rocky pool, barely two metres square and 15cm deep. I peered into the dark water.

At first, I couldn't make out anything other than leaf litter and sticks. Then, I saw something

opposite kunanyi view
photo Janine Tickle

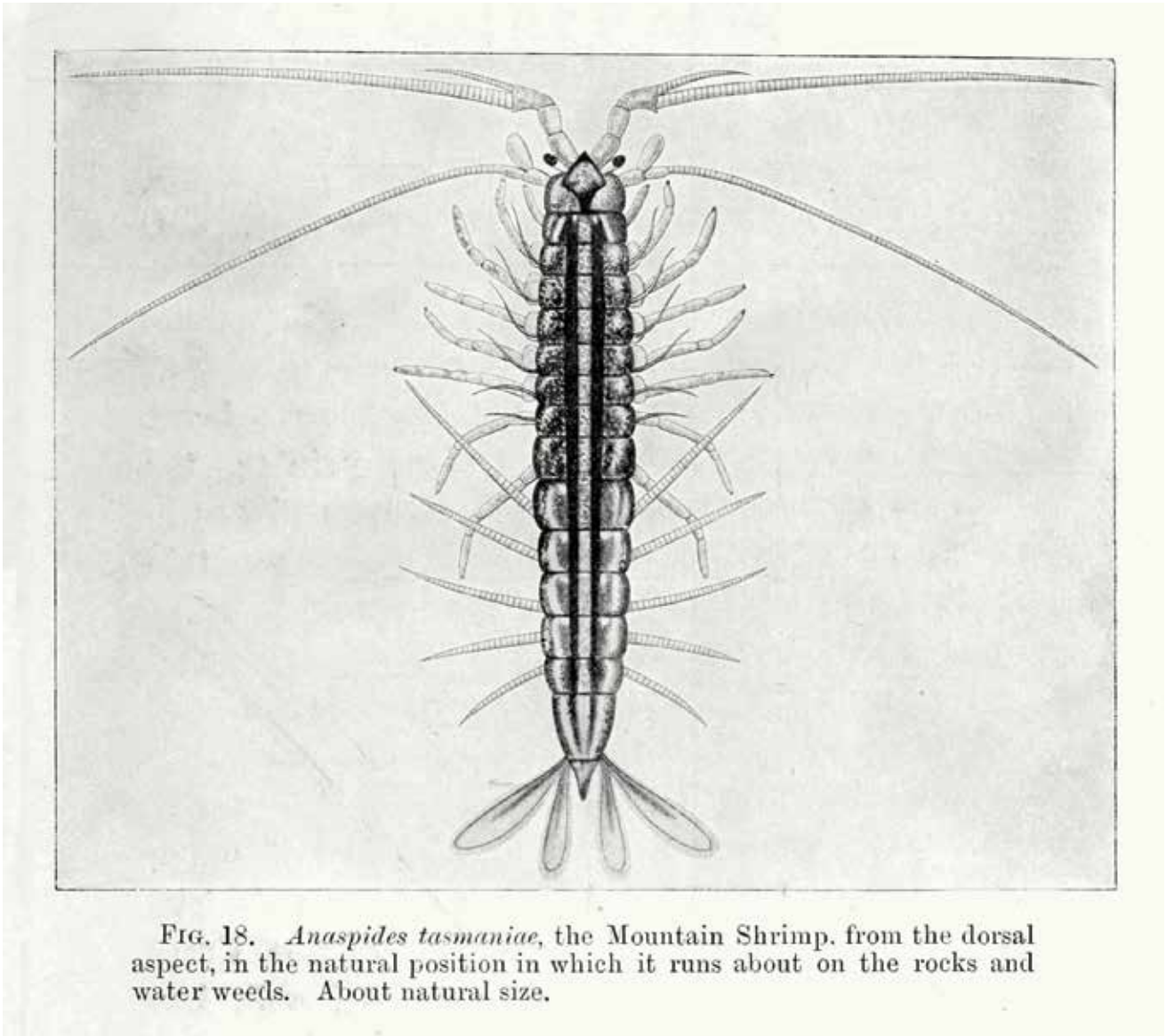

Fig. 18. *Anaspides tasmaniae*, the Mountain Shrimp. from the dorsal aspect, in the natural position in which it runs about on the rocks and water weeds. About natural size.

Geoffrey Watkins Smith's sketch of the mountain shrimp from A Naturalist in Tasmania*, 1909*

small and brown, about two centimetres long, perched on the end of a submerged twig. It jumped off and swam away, its many legs beating in time like the oars of a minuscule Roman galley. My eyes adjusted to the dim light, and now I knew what I was looking for. Almost magically, I could see dozens of mountain shrimp in the pool. Doran dipped his hand into the icy water, scooped one up and we examined it closely.

The mountain shrimp is a prehistoric creature, virtually unchanged by evolution across millions of years. It looks like a cross between a tiny prawn and a centipede and lives only in Tasmanian mountain streams and tarns, where it feeds upon rotting vegetation and hunts other smaller arthropods.

Smith, a Fellow of Oxford University's New College, was fascinated by what he termed "primitive animals". He travelled the world in search of living things that resembled ancient fossils. Smith recorded his antipodean adventures in his book *A Naturalist in Tasmania*, published in 1909. Along with the usual suspects – thylacines, devils, platypus, echidna etc – Smith described some more obscure Tasmanian treasures, including the giant freshwater crayfish (aka the lobster) and the mountain shrimp.

*The mountain shrimp (*Anaspides tasmaniae*)*

Smith marvelled at how the mountain shrimp was, for all intents and purposes, exactly the same as the animal he'd found fossilized in English coal beds, laid down in the Carboniferous Period, more than 300 million years ago.

With our quest for the mountain shrimp fulfilled disappointingly quickly, Doran looked at me with a twinkle in his eye and asked if I was interested in seeing something else. Something a bit special. He quickly followed this up with, "How are you with confined spaces, like caves?"

I've visited numerous tourist caves in Tasmania and on the mainland and, emboldened by these experiences, I agreed readily – or perhaps foolishly. I must admit I was surprised to learn there are caves on kunanyi. However, these caves are very different to the limestone caves I'd previously visited, those festooned with pretty stalactites and stalagmites and fitted with lights, steps and handrails.

One of kunanyi's defining features are the massive vertical faces of spectacular rock columns, such as the famous Organ Pipes. Over the millennia, many of these dolerite stacks have cracked away from the mountain and tumbled down. Sometimes, these broken pillars fall across one another, enclosing cavities and tunnels. Caving enthusiasts, like Doran, have found secret ways into this labyrinth and explored the many dark passages that reach deep into the heart of the mountain.

We drove further up towards the summit, to the start of the Lost World track. There, Doran fitted me out with helmet, headlight and waterproof torch, and we set off for our "short" walk. Eventually, we left the marked track and picked our way across the massive boulders strewn below the fluted cliff face. Then, we clambered down to the mouth of a small, inconspicuous opening between two large rocks.

The Lost World area on kunanyi's northern slopes

After a thorough safety briefing and discussion of the fundamentals of caving technique, we lowered ourselves through the opening and into the mountain.

The first thing you notice when entering a cave system is the immediate drop in temperature and the distinctive smell of damp rock. The darkness enveloped us as we descended through several echoey galleries linked by sloping tunnels. I was grateful on more than one occasion for Doran's calming voice and expert ability to communicate what I needed to do – where to put my hands and feet and how to brace myself against the rock when ascending or descending between levels. At one point, I felt like Winnie the Pooh, wedged in the front door of Rabbit's burrow. Thankfully, unlike Pooh, I didn't remain trapped until I'd shed some weight. After a few deep breaths and with Doran's guidance, I wriggled free and pushed my way onward.

We spent the afternoon exploring these hidden places, building up to a spectacular finale. Doran led me to a particular long square-sided tunnel which was festooned with large horizontal webs. Hunched over, we scrambled along. Cold water flowed over our boots and the light from our torches bounced off the water's rippling surface and danced along the tunnel walls. At the end of the passage, hanging from the rock above one of these broad, net-like webs was a spider unlike anything I've ever seen.

It looked something like a daddy long-legs, but much bigger. Long, spindly, orange legs were folded delicately around its dark body and bulbous grey-green abdomen. Here was another living Gondwanan fossil, the Tasmanian cave spider

*The Tasmanian cave spider (*Hickmania troglodytes*)*

(*Hickmania troglodytes*). Its closest living relatives are found across the Pacific in Chile and its unusual collection of anatomical features places it before the evolutionary branch point that gave rise to "modern" web-building spiders.

In a classic "don't try this at home" moment, Doran delicately extracted the spider from its web and let it crawl over his hand till it settled in his palm. He assured me they are quite docile and, while venomous, they rarely bite unless they feel threatened. Years of experience and a mesmerising gentleness of touch allowed Doran to safely handle what is a potentially dangerous animal.

The cave spider is Tasmania's largest spider. While this female was medium-sized, females, which grow much larger than the males, can reach the size of a dinner plate. Doran has studied these spiders for decades, slowly building up our knowledge of this incredible creature, particularly its life cycle and quirky breeding habits. I may not particularly like spiders (just ask my family), but seeing this amazing arachnid and its peculiar ecological niche in the company of the world expert on its biology was something special. I felt an electric surge of excitement pass through me. It's a memory that I will treasure.

If you find confined spaces (and spiders) even more confronting than me, the good news is that you don't have to clamber about in claustrophobic tunnels to learn more about the sex life of primeval cave spiders. Doran, who has worked in academia and government, is the founder and director of the Bookend Trust (bookendtrust.com), a not-for-profit education initiative that seeks to inspire students and their communities with environmental engagement activities. One of these initiatives is the documentary movie, *Sixteen Legs,* featuring Neil Gaiman, Kate Miller-Heike, Steven Fry and Tara Moss – and some very large spiders. Over the past few years, the movie has been shown to packed houses across Australia and around the world.

We retraced our steps and emerged into the fading afternoon light. I thanked Niall Doran profusely for giving up his Christmas afternoon to guide me up, down, around and inside the mountain, and for sharing his time and knowledge with me. This was certainly a most memorable Christmas present. What better gift can one receive than a renewed sense of awe at the wonders of nature. ■

TERRY MULHERN is a writer and academic. He has lived in Victoria for more than 20 years but, like a swift parrot, he migrates every summer across Bass Strait to north-west Tasmania.

More about Niall Doran and his work with Bookend Trust can be seen at www.bookendtrust.com.

The documentary Sixteeen Legs *is available on DVD via www.sixteenlegs.com.*