The cat's whiskers

From intimate shots of Sri Lankan leopards to jaw-dropping close-ups of macaques on Sulawesi, Paul Williams has spent more than 15 years producing spectacular shots of the natural world. Here, he reveals some of the secrets to his success



he leopard blocked our path, rolling around submissively, like a domestic cat wanting its stomach stroked,' says Paul Williams, a producer and director at the BBC's Natural History Unit. 'This

pussycat-like display was deeply ironic, since just the night before, we'd had a terrifying encounter with another huge leopard that had been poised to pounce into the back of our truck as we filmed. It had been a close call,' he laughs.

Williams was filming for the BBC series Wonders of the

boldest leopards. As they have no other big cats to compete with, these leopards have become the top predator, growing to super-sized proportions and audaciously prowling around in the daytime. 'That night, we were 50m away, using night-vision goggles and infrared cameras to remain hidden,' says Williams. 'However, the dim light of the monitors attracted the leopard. He stalked toward us with intent. Leopards hunt in darkness, as their night vision is seven times more powerful than ours. Luckily, a colleague grabbed an umbrella and opened it, which startled the leopard back into the shadows. We used an umbrella against a leopard; how very British!'





My kit bag contains some unusual items. An umbrella, as you now know. My brolly has also protected me from a persistent African wildcat in the past. I like to shoot time-lapses of storms on tripods, using bin liners, gaffer tape and a brolly to

protect my camera. Tiny tabletop tripods are good for remote-trigger shots. I snapped thousands of budgies flocking around a water hole in Australia using a remote trigger. In bright sun, I throw black material over my head, so that I can still see the monitor. And a bean bag is great for camera support, since I'm usually lying in the mud for long stretches. Many beginners shoot at eye level, but getting down on the animal's level, with some leaves for a blurry foreground, helps make a shot feel more immersive.

Talk to the animals. Many experts have given me this advice. A calm, hushed voice signals to the animal that they can trust you. Some will even start to recognise your voice. Foxes like to sunbathe in my garden, and I started shooting them from an open window. Now they know my voice, I can get within a few metres of them. You don't have to

travel to exotic locales to get wildlife shots - I've taken lovely portraits of robins in my back garden in Bristol. Slow,

fluid movements are key.

Mostly, threat displays by animals are just that displays only. A male macaque monkey once leapt on my back so I just stayed

charged by a female elephant. She thundered towards us, but stopped a few feet short of the car. She'd just been scared by us turning on the engine.

to shoot wildlife in India, you'll often find 10 locals jump into the frame, beaming. But many cultures, such as African ones, grow very offended if you don't ask for permission. I've found that when I show them the shots on the monitor, they are delighted and want to pose for more. Often, they've never seen a photograph of themselves before.

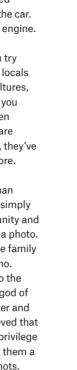
I carry a pocket Polaroid printer. Rather than being a rubbernecking rich Westerner who simply takes, I seek to embed myself in the community and offer something back, if only a hard copy of a photo. I once worked with a fascinating Tenggerese family who lived on the slopes around Mount Bromo. Every year, the villagers carry offerings up to the volcano's active crater, to pay tribute to the god of the volcano. Some locals climb into the crater and try to catch the offerings with nets. It's believed that each item they catch is a blessing. It was a privilege to spend time with them. Afterwards, I sent them a photo album of the shots.

Get closer

■ If your camera shoots in 'raw', opt for that rather than shooting in jpeg. Raw gives you much more data and detail to play with afterwards.

- Mirrorless (or compact system) cameras are great for beginners and the lenses are much cheaper.
- Look for an SLR with a silent click mode, to avoid startling animals.

still until he got off. Another time, our car was Show people your pictures of them. If you try



Find the prey, find the predator. We had been struggling to find giant red leeches in the mountains of Borneo for several weeks. The leeches are huge, the length of my arm. Thankfully, a heavy rainstorm brought their prey, equally giant iridescent blue worms, out



of the subterranean depths. The leeches tracked the worms like sniffer dogs, before latching on and sucking. The footage was can't-look-away grotesque; it's the most-watched BBC natural history sequence on YouTube.

You can shoot from commercial planes; you don't necessarily need a helicopter or a light aircraft. Check out the flight path, consider which side will give the best view, and choose the side away from the sun's glare. I book a seat as far from the wing as possible and wear dark clothes to limit my reflection. Desert regions such as Iran can give jaw-dropping, otherworldly shots. I use Adobe Lightroom to clean out the blue haze and any window marks afterwards, and increase the contrast and the clarity - sometimes by as much as 100 per cent.

The future is bright in night shooting. I use The Photographer's Ephemeris, an app that tells you when and where moonrise/moonset will be. It helps me predict how the sky will change during time-lapses at night. I also use Star Walk, an app that shows me where the Milky Way will be. You always want the Milky Way in shot. The best time to shoot stars is before the moon rises, ideally during a new moon, as the sky is at its darkest. I always look for something in silhouette, too, such as an abandoned farm building or a windmill, to frame against the northern lights. Then, open your aperture as wide as possible and set a 15- to 20-second shutter speed. Night is the new frontier in wildlife films. The latest low-light cameras are really exciting. They'll allow us to capture an entirely unknown nocturnal, moonlit world.

Keep a low profile

I think macagues are the easiest monkeys to shoot. They're inquisitive and expressive. Primates have strong hierarchal systems. Demonstrate to the males that you're submissive by avoiding eye contact and staying low. This male was chewing on charcoal; thought to be a form of selfmedication since it helps neutralise plant toxins.



I had a dramatic shot of this ancient Buddhist temple, with a thunderstorm brewing beyond. But it was incomplete. I asked this monk to pause in the doorway, seconds before the skies opened. Always ask before you shoot someone, particularly at a sacred site.



Having a little girl has renewed my sense of childlike wonder. My two-year-old, Ammony, is spellbound by a leaf, a seed, a tiny insect. Things I would otherwise take for granted. There's so much wildlife on our doorsteps. The 19th-century scientific illustrations of Ernst Haeckel inspire me, too. Ever since I studied microscopic palaeontology at the Natural History Museum in London, I have been captivated by the life that few people see. In a shopping centre, the limestone blocks in the walls or floors can be packed with billions of microscopic fossils. Like miniature, hidden works of art. Haeckel's work begs us to look in more detail at the world, whether it's a hummingbird or a beautiful single-celled foraminifera. The more closely we look at nature, the more fantastic it becomes.

Check out more of Paul's work by following him on Instagram @iron ammonite, or go to ironammonitephotography.com

