

THE ICE MASTER

The astonishing underwater photography of PAUL NICKLEN earned him the title of Veolia Environnement Wildlife Photographer of the Year for 2012. Keith Wilson hears his frank account of growing up in Arctic Canada, working for *National Geographic*, and the real pain he endures for his photography

Hearing Paul Nicklen describe the pain he is prepared to endure while submerged in freezing water, all for the sake of photographing emperor penguins, makes me tremble and shake. Yet he doesn't speak with dramatic overtones or animated gestures to embellish his story. Instead, he recounts the facts of floating perfectly still under the Antarctic ice in a measured, matter-of-fact manner, as though reading from a script.

What makes the situation Paul describes even more incredible is that it is not a one-off. In fact, he has suspended himself beneath the ice on numerous occasions to photograph life in the freezing polar waters. "Usually, I go into the water under the ice shelf. I lock my legs and bum up beneath the ice and use my buoyancy to stay in position, and I just lie there on the edge of the ice hole without moving, sometimes for up to an hour." From this freezing vantage point, Paul was able to take the picture that led to him being named the Veolia Environnement Wildlife Photographer of the Year for 2012.

We are at the Natural History Museum, London, talking about Paul's winning image of emperor penguins propelling themselves towards the water's surface and onto the ice. At the time, he was on assignment for *National Geographic*, trying to capture the way emperor penguins release a stream of bubbles to help them accelerate out of the water and onto the ice sheet to escape predatory leopard seals lurking beneath. "I had one hundred metres of visibility, the clearest water in the world, and hundreds of emperor penguins, ▶

Blast-off: Runner-up in the Underwater Worlds category, Paul's image from the same assignment as his winning image graphically shows how emperor penguins release millions of micro-bubbles from their feathers to reduce the friction of their plumage against the water, helping them achieve maximum speed when leaping out of the water.

PAUL NICKLEN/VEOLIA ENVIRONNEMENT WILDLIFE PHOTOGRAPHER OF THE YEAR 2012



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one of the most beautiful birds in the world," Paul recalls. "It's incredible to see what looks like a lumbering mass on land become the most beautiful, graceful, ballet-like torpedo you've ever seen when underwater. And then they're releasing all these bubbles to help accelerate their speed to the surface. That was the most amazing part for me to watch."

It is the morning after the awards evening, when Paul was declared the overall winner of the world's most prestigious wildlife photography contest. The celebrations, he admits, lasted till the early hours and he nurses a cup of coffee in his hands as he tells me how he took the picture. "I was snorkelling because I didn't want to make any bubbles that might make the penguins think I was a leopard seal," he explains. "I didn't want the penguins to feel threatened by me. I had just been attacked by a leopard seal on the second day of the story and it hurt pretty good." He needn't have worried – the penguins' curiosity took over and before long they were relaxed in his company: "Right away they came up to me, looked a little nervous at first, but then I had penguins resting on my head, cleaning themselves on my back, jumping off my back. It was an amazing situation." Amazing, yes, but also highly dangerous: each dive is a test of his physical endurance, of his body's ability to withstand extreme cold without triggering a hypothermic coma.

SHAKING VIOLENTLY

I ask Paul to give me an idea of the pain and perseverance it took to take these pictures. "When you get into that water, it's -1.8°C, the coldest salt water can get before it freezes. In fact, it's like deep slush that you're swimming in," he says. "First, you lose feeling in your hands, then your feet, then your legs, your

Frozen moment: Paul captured the moment when emperor penguins leap into the air, up to two metres high, away from predatory leopard seals and onto the safety of the ice on the Ross Sea, Antarctica. Paul's photograph was judged the winner of the Behaviour: Birds category of the Veolia Environnement Wildlife Photographer of the Year 2012.

PAUL NICKLEN/VEOLIA ENVIRONNEMENT WILDLIFE PHOTOGRAPHER OF THE YEAR 2012

face, your head. Sometimes, when I get in the water the cold in my head is like when you drink an ice cream milkshake too fast. You get that, but it goes over your entire head and causes your body to vomit, so I end up upchucking in the water." Not a pleasant experience then, but that, says Paul, is not the hard part.

"The hard part is that you have to monitor your body, and after about 20 minutes you've lost all feeling in your extremities." Sounds serious, I'm thinking, but Paul assures me that not having any feeling in your limbs and extremities is still okay... "You're not in trouble yet, but then you start feeling your body core temperature start to drop and after about 45 minutes, an hour, you start to shake violently. You're shivering so hard you can't stop, you can hardly hold your regulator in your mouth, but at that point you're still okay." He can't be serious. What about the camera? He can't feel his fingers and he's shaking like a house in an earthquake: "Yeah, keeping the camera steady is the hard part," he agrees, but eventually the shivering stops. "Then your legs cramp up, your arms cramp up, your calves, hamstrings lock up. Now, that's when you're in trouble."

I feel a chill from the neck down imagining Paul's perilous predicament and am almost relieved when he admits to staying in the water longer than he should. "I've pushed it to that point too many times," he agrees. "I try not to, I try to get out with the shivering, or just after the shivering, when I'm hypothermic and people have to haul me out of the water and I'm lying on the ice, drooling, and they'll put hot tea into me. I'm running too much of a risk. It's just not a smart way to dive, but sometimes in these situations that's all you've got."

As well as the overall title, Paul's images of emperor penguins from Antarctica won two categories: Underwater Worlds and Behaviour: Birds. Although on assignment at the time for *National Geographic*, he was further motivated to capture this extraordinary behaviour after watching footage shot by legendary cameraman Doug Allen, for the BBC TV series *Frozen Planet*. "I know that the BBC and Doug Allen had filmed it so I'm looking down, wondering, 'where is it, where is it?' I had penguins on my head and chaos all around and finally it calmed down. Then I looked down and there it was: it's these missiles coming up and bubbles pouring off. Suddenly, it's like someone has turned on the tap and you see millions of these micro bubbles and the penguins are swimming through their own tube that they're generating as they're rocketing to the surface. That just blew me away."

LIFE ON BAFFIN ISLAND

There is a strong case for arguing that Paul's upbringing and career path meant he was destined for this richly deserved success. The son of farmers from Saskatchewan in the heart of Canada's wheat belt, Paul and his family moved to the Canadian Arctic when he was just four years old. "My Dad got a good job opportunity on Baffin Island, so after a four-hour flight north from Montreal, we lived on Baffin Island and were one of only three non-Inuit families living in a tiny Inuit community," he recalls. "My Mum was a school teacher, my school teacher, which is not recommended because if you get into trouble at school you get it equally hard at home later. I spent half my childhood grounded!" ▶



Paul on location.

WHAT'S IN THE BAG?

As well as an extensive range of Canon cameras and lenses, Paul Nicklen uses numerous underwater housings, all made by Seacam. His assignments also require Scuba equipment, underwater remotes, inflatable kayaks, computers, generators for computers and, as he puts it, “spare parts kits for everything!” Three years ago, he purchased an ultralight airplane to shoot aerial images of the Arctic. When travelling he will turn up at the airport with between 14 and 20 cases, each weighing around 30kg. “Airlines love when I arrive at check-in with three or four luggage carts roped together!” he laughs.

PAUL'S CANON KIT LIST

▶ Canon EOS-1D Mark IV, 1Ds Mark III, 1D Mark III, 1Ds Mark II, Canon EOS-1Ds Mark III plus a variety of Canon lenses, including teleconverters and flashguns

OTHER EQUIPMENT

- ▶ Seacam housings
- ▶ Lowepro and Pelican bags and cases
- ▶ Gitzo carbon fibre and aluminium tripods
- ▶ Foba, Wimberley, and Arca-Swiss heads
- ▶ Arca-type plates
- ▶ Ikelite strobes
- ▶ TLC strobe arms
- ▶ 50W HID lights
- ▶ Scubapro diving equipment
- ▶ Buddy Inspiration Rebreather
- ▶ Ice screws, ropes, and other gear for ice diving



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Bubble-jetting emperors: Paul's image of emperor penguins beneath a frozen area of the Ross Sea, Antarctica, was judged both the winner of the Underwater Worlds category and the overall title of the Veolia Environnement Wildlife Photographer of the Year 2012. The photograph depicts the moment when hundreds of emperor penguins launch themselves out of the water and onto the ice above him. To get this shot Paul lowered himself into an ice hole and locked his legs under the lip of the ice so he could remain motionless, breathing through a snorkel so as not to spook the penguins when they arrived.

PAUL NICKLEN/VEOLIA ENVIRONNEMENT WILDLIFE PHOTOGRAPHER OF THE YEAR 2012

When he was allowed out, Paul's playground was the sea ice, his neighbourhood friends the local Inuit children. Remote and isolated, Baffin Island is the world's fifth largest island and one of the most sparsely populated: less than 12,000 people live in tiny settlements scattered across an area the size of Spain. "I'm lucky that I grew up on Baffin Island with the Inuit. It was a wonderful experience, learning to speak the language and learning to be out on the land. I've known cold and borderline hypothermia since I was four years old. That helped me to really start to understand pain. I first fell through sea ice and had to fight for my life when I was six years old. I didn't even have a dry suit on and no one was around. I had to work my way to shore and keep calm. I've been through the ice many times, I've had friends die and teachers die on the ice. It's just the environment you grow up in."

TURNING TO PHOTOGRAPHY

From the Canadian Arctic, Paul returned south to complete a degree in marine biology at the University of Victoria on Vancouver Island, then headed back in the Arctic putting his education to practical use. "The university gave me an outlet to dive and to learn, and to explore the ocean. That was what got me hooked. I then went up north to Yellowknife in the North West Territories, to study the polar environment and work on polar bears and other species."

From Yellowknife, Paul and his fellow researchers would fly close to the North Pole, then ride snowmobiles across the sea ice to tag polar bears and fit them with radio collars. Despite the awe and wonder of these three-month expeditions, he felt he had nothing from the experience that he could show and share with others. "At the end of these amazing expeditions, where you'd see white wolves on the sea ice and polar bears, all we would have to show for it were a stack of data sheets. I was leaving those trips feeling so empty. You'd come back and realise that you weren't going to affect change, that the government was going to make decisions that were contrary to what you were finding."

In an attempt to fill the void he was feeling, Paul decided to make his next three-month foray into the Arctic alone. "I got myself dropped off hundreds of miles from the nearest settlement, got hopelessly lost, came back and said, I know what I'm going to do now, I'm going to bridge the gap between good scientific research and the public with my camera. My goal is to get into *National Geographic* where you have the chance to reach forty million people with one story and so that's the path I pursued."

As a photographer, Paul is entirely self-taught. His first published photographs were in local magazines in Canada's Yukon Territory. He spent eight years pitching to *National Geographic* before beginning a mentorship with Flip Nicklin, one of the magazine's senior photographers. He then worked alongside another *National Geographic* photographer, Joel Sartore, to provide underwater images for a story (Pacific Suite, February 2003). A few months later came his first full assignment, documenting the life of Atlantic salmon for the July 2003 issue. "I haven't left since. I think I have done fifteen assignments now and it's been a good run, but it's hard work and you're only as good as your last story."

CAMERAS & HOUSINGS

For his countless immersions beneath the polar ice, Paul relies more on the reliability of his waterproof housings than the camera. "I shoot on the same camera as everyone else," he says, "I'm in the Canon family. Where I am lucky is that I have the Seacam housing. That's the true catalyst to my work. I can take these cameras, put them in a Seacam housing and they work flawlessly. When everything else is frozen underwater and my hands are frozen, everything inside the housing is still working." Paul uses the Canon EOS-1D Mark III and Mark IV, as well as 1Ds Mark II and Mark III cameras, each with its own Seacam housing. His impressive arsenal of Canon lenses include a 16-35mm f/2.8L wide-angle zoom, 100mm f/2.8 macro, 24-70mm f/2.8L IS zoom and telephotos right up to a 600mm f/4L IS. Has he flooded any of his camera gear over the years?


"Sure, I've flooded cameras," he declares, "but it's never the camera housing's fault, it's the assistant's fault, he didn't close it right! When it's cold like that and you're right on the surface, the O-rings are hard and rigid and there's no pressure to help keep the housing closed, that's when you're most vulnerable. I've flooded housings and lost cameras, but the way I see it is that if you've ruined a camera after a shoot, it's the sign of a good shoot, it means you're out there working! You don't try to do it, but it does happen. I just had a grizzly bear eat a camera in the Arctic last week. It's just part of the job, you know. I love shipping that stuff back to *National Geographic* in a box with a note on the outside asking them to just clean the lens, when the thing is completely mangled!" ▶



POLAR ICE-MELT

Although appreciative of the recognition gained through publication in *National Geographic* and success in the Veolia Environnement Wildlife Photographer of the Year competition, Paul believes that the true worth of his photography lies in his documenting of the ice melt in the Arctic and Antarctic. Even within his short life – he is only 44 – the loss of ice has been dramatic. “Oh, it’s incredible,” he says. “I work with the Inuit, and I go to places that I went to as a kid – onto the sea ice at certain times of year on a snow mobile. That ice has gone.

“I recently had to put on hold a big assignment to Svalbard, Norway, because there was no ice. We couldn’t go there, not even in the winter, and it’s only 500 miles from the North Pole. A lot of these places have no ice. I was up in the Arctic this summer and all the tourist ships are creating their high latitude records pushing up towards the North Pole and they’re not even icebreakers. Even the North West Passage; in the last 10 years, even sailboats with a little fibreglass hull are getting through. So it’s unbelievable how fast it’s changing.”

Paul describes polar bears and emperor penguins as charismatic emblems of global warming because it is images of these species that serve to remind the public of what will be lost in an ice-free planet. “If ice disappears we stand to lose an entire ecosystem,” he asserts. “If we lose ice we will lose polar bears in the next fifty to one hundred years, we will lose emperor penguins in the next fifty to one hundred years. To me that’s tragic. If we can’t save polar bears, the most charismatic animal on the planet right now, and we can’t save emperor penguins, which we all love, then my question to myself and to us is this: can we save ourselves?” 

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Spirit of the Forest: The Great Bear Rainforest of British Columbia, Canada, is the home of a rare type of black bear that has recessive genes to give it a creamy white coat. Known as the spirit bear or ghost bear, this elusive creature is revered by the indigenous people of the region and is threatened by deforestation. This image was highly commended in the Animals in their Environment category.