



Freeze Frame:

A Wildlife Cameraman's Adventures on Ice

Doug Allan is one of the world's most well-known and respected wildlife cameramen. In a real treat for anyone who is interested in natural history camerawork, fascinated by the beauty and mystery of the polar regions, or just loves gorgeous photography, GTC member Doug has just published a book of the best of his photographs, amassed over 35 years of working and filming in the Antarctic and Arctic.

The book is much more than just a collection of superb images. The stories that accompany the pictures document a life full of encounters with extraordinary wildlife in some of the most challenging locations in the world. The book is imbued with a passion for the subject, and peppered with evocative, exciting, amusing and thoughtful recollections, as well as a wealth of information about the climate, topography and natural history of these inaccessible regions. For any aspiring wildlife film-maker, as well as for those who simply love to watch series like *Frozen Planet*, in awe at how certain sequences were captured, this book is crammed full of insights from one who truly has 'been there and done it'. Sir David Attenborough, who provides the foreword to the

book, has written: "*Doug takes such pleasure in hardship that he gets shots few others would even dream of attempting.*"

As editor of Zerb, it has been a great pleasure to have a sneak preview of this beautiful book. However, selecting extracts proved nigh on impossible as there were so many strong contenders! So, in the end I tried for a broad cross-section of the range of gems to be found on every page. To see more you'll just have to get your own copy of the book because this feature doesn't even scratch the surface. You can also hear Doug talk about some of the incidents in the book on his lecture tour throughout February and March (dates and details at: www.dougallan.com).

Seize the Moment: The Ice that Came to Life

I walked past this piece of ice every day for a couple of weeks after it washed up on some shallow flats on a high spring tide. To be honest, it didn't impress me much. I hardly gave it a glance – rounded, no remarkable silhouette, just typically weathered faces with little dimples caused by gentle wave action.

Then, early one morning, returning from a Weddell seal count, I saw it in a different light. The sun was clear on the horizon, unusual for Signy, where cloudy clag and overcast was the norm. I was drawn to the berg, now shining like a jewel, practically transparent. It was an odd sort of light, for though the sun was low, it had none of the orange you'd usually associate with the first hour after dawn. It was bright, brilliant and blue. It gave a picture that may be simple but to me is full of the magically variable beauty of ice.

▼ Signy Island, South Orkneys, Antarctica. Nikon F2 + 24mm Nikkor; Ektachrome 100; 1/125 @ f11; polarising filter.



Do Not Disturb: Sleeping Seal

Keep your distance. A Weddell seal can sleep soundly because there are no polar bears in the Antarctic. It may be the most placid of the southern seals, but that doesn't mean it won't be stressed if you get too close. A long lens is what is needed for a close-up if you want natural behaviour. This shot was taken with a Canon 1DS Mk 2 + 100–400mm Canon lens; 200 ISO; 1/250 @ f8.

Get me a Blizzard

'Get me a blizzard' is a frequent production request – but usually not from anyone who's actually been in a real blizzard. For in true blizzard conditions, it's a white-out: contrast is zero, visibility down to metres, and you might as well film with half a ping-pong ball over the lens for all you'll see. No, what they mean is *"Please see if you can film some beautifully backlit drifting snow, with the sun low in the sky, so I can write the commentary emphasising the chill of the Arctic/Antarctic winter."*

I've had people suggest I go to the high Arctic in January because *"that's when it's coldest and we'll get the most dramatic shots"*, forgetting that above 75 degrees north it's pitch black all the time through January.

The truth is that below about -20°C it all looks the same. There's no melt and the snow is dry rather than sticky. So it blows around easily. But the difficulties of filming increase dramatically. Most gear will work

OK down to -15°C , but as you sink towards -25°C or even -35°C , the challenges mount. Batteries die faster, electronics become less reliable, flexible power or sound cables snap like dry spaghetti. And there's a very real danger of frost damage to the cameraperson as well as the gear. Unless I want to cover some behaviour that happens only in late winter (such as bears coming out of their dens), I try to avoid going to the far north on a serious shooting expedition until late March or early April. It's still cold but not creatively crippling cold. It's not a damp chill but invigoratingly dry. There's still a sunset and a sunrise, and so you have the best of low-light periods. The sea ice is still solid, you're unlikely to drop through a crack, and the snow's still squeaky hard and easy to drive or walk over. Minus 18°C is my perfect temperature.



▲ Signy Sea ice in May, -5°C and 25 knots of wind, making -17°C equivalent. Plenty of light snow had fallen the previous day – perfect for the creation of 'blizzard conditions' whenever the wind picked up despite being relatively 'warm'. Nikon F2 + 24mm Nikkor; Ektachrome 64; 1/250 @ f11.

Antediluvian Film-making

Back in the good old days, we used 16mm film cameras. The built-in exposure meter and ability to do modest slow-motion was about the limit of the camera's sophistication. The workhorse was the ARRI SR, with its quick-change mags, rightly famed for reliability and toughness. If you were pitching your tent in hard ground and couldn't find a hammer for the pegs, you could always use the ARRI.

Ten minutes max

Film came in 122-metre long rolls and presented certain challenges. Magazines would regularly need reloading in a changing bag out on the ice. This was a bare-hands job – wearing gloves wasn't practical. With practice it's possible to change a mag in less than a minute in normal conditions but much harder at -20°C . The worst nightmare was crucial action happening while you were in the middle of loading the next mag. A full mag lasted for ten minutes, or less if you were shooting slo-mo, since then you were pushing the film through the camera faster. We would keep three or four loaded mags with us and maybe an extra five cans in our rucksacks. That was usually enough to cover what was happening, though we had our hands full if the action became really hectic and we were doing lots of slo-mo.

But while you could change mags topside in a matter of seconds, that didn't apply under water. Down there, when you'd run your ten minutes, you had to leave your subject, swim back to the boat, put the camera and housing on board, dry it, split the housing, change the mag and put it all back together – by which time, your animal had swum far away and you might not have another chance. So the advent of electronic tape, with its 60-minute loads and big, bright viewfinders, was an advance I took to eagerly. The other big plus was video's ability to 'punch' through murky water far better than film. Low contrast and poor visibility often prevail under water, but with electronic cameras, we could bring back good images from far more difficult conditions.

Wait and see

Of course, the biggest difference between electronic image-gathering now and film back then is that there was no feedback with film until it had

▼ *The only way to get close to wary seal pups on Lake Baikal was by wearing a white camouflage anorak and crouching behind a white sheet on this improvised sledge*



▼ *The housings for the first broadcast-quality tape cameras were heavy to carry around topside – bigger and weightier than for film cameras – but they were neutrally buoyant under water. So once you had them under the ice, swimming with them was no problem*



DOUG ALLAN/NATUREFL.COM

been developed. For most shoots in remote locations, this meant we'd go there, film our subjects and return to Bristol with no certainty of what was on the film. Composition, exposure, focus, range of shots the editor needed – all of this could only be checked weeks later when viewing the rushes with the producer and editor.

I learned the hard way that my sense of time goes awry when something exciting is unfolding in front of the lens; time seems to be stretched in my head. I would watch my shots in the viewing theatre and realise that too many of them were too short for the editor to use effectively. Then, another more experienced cameraman pointed out that, when things go into overdrive, the observer's mind reacts with boosts of adrenaline. This drug affects your sense of time, and things seem to happen more slowly. So I began to deliberately run my shots longer than

my immediate reactions suggested.

Film was heavy to carry and expensive to use – £25 to buy and process one minute of film to the stage where you could simply look at it. So we tried to be reasonable with our shooting ratios: the ideal was 40:1 but tricky sequences could run to 100:1. As for how long it would take to actually film something, the old numbers still pretty much apply today. For a minute of film on screen, you'll need to spend an average of eight days in the field. So an ambitious, pure-wildlife series, comprising 10 programmes, each 50 minutes long, will need 10 x 50 x 8, i.e. 4000 filming days in its budget. That's why they don't come cheap.

No news is good news

Communication, on the other hand, has changed utterly. When I first worked in the Antarctic 35 years ago, everything was by telex. We

were allowed to send 200 words of personal traffic each month and receive 100. Now the crew can talk to the office and even send images by satellite phone as often as they want. Maybe it's a throwback to my British Antarctic Survey (BAS) days, but I'm much more inclined to adopt the principle of 'no news is good news'. If you don't hear from me, assume it's going OK. I like giving big environments and animals my total concentration. I prefer to sink into the subtleties of their moods. I like as few distractions as possible.

Many places now, of course, are much less arduous to reach, and there's a lot more knowledge and experience about some locations today. The best example of this is the Antarctic continent itself. In 1976, on my first trip south, only one tour ship and a few private yachts visited the Peninsula. Now you can take your choice from 20 tour companies.

Some memorable sequences: Showtime on the Slopes

7 April, 4.50am. Tenacity is just patience showing its teeth, and it's been tough looking for bear dens. We've come to Kong Karl's Land because, 25 years ago, when two Norwegian scientists worked here, they found 20 dens in one valley. This should be a bear Mecca, a location offering exciting new sequences for *Planet Earth*. But for 23 days we've searched the slopes in vain; we've found only one mother and cub, in a spot impossible to film.

Then yesterday we had our break. We walked up one valley in the morning, and coming back in the late afternoon saw a dark hole in what had been an unbroken slope of virgin snow, with a scattering of pawprints around it – exactly what we were hoping for, a den site with a newly emerged bear. As quickly as we could, we dug our blind, a hole in the snow just big enough for the two of us with the big camera on the tripod. We built a high wall of snow blocks all round to keep us hidden from the bear. She'll smell us if the wind is wrong. She might hear us too, but if we stay mostly out of sight, she'll probably accept us.

I double-check that we have everything – camera batteries, spare gloves, binoculars, sunglasses, thermos, chocolate and explosive-flare pistol that I'll use if a bear comes too close. It's good we hauled most of the heavy camera gear down on sledges a week ago. Not much wind this morning, but it's a chilly -32°C with about 10 knots of wind gusting from the east. Not a problem going down the valley as it's at our backs but coming home tonight into the breeze we'll have to watch for frostbite.

When we first arrived here, the prospect of having to walk everywhere was frankly dreadful – so slow, so cold, so many more hassles than if we had the usual snow machines. But this is a highly protected area and minimum disturbance for the bears was a condition for the permission. However, by now I positively enjoy the walk. I'm aware of every nuance of the snow and ice textures beneath my feet, I can hear the high-pitched calls of the black guillemots, I'm in touch with every shift of the wind. It's as if I'm ultra-tuned in to the nature of this wonderful place. I'm in bear world, living at bear speed, with bear senses. I feel very alive.

The timing when we reach the filming position is perfect. Ninety

metres higher up the slope, the black hole we found is just beginning to come into full sunlight. Come on, girl, it's looking good. Show us you're in there. Please don't be a temporary den that's now empty.

Over the hours that follow, continuous movement is the only way to stay warm. We shuffle, hop, bend, stretch and rub, alternating between cups of coffee, a rehydrated meal and a few squares of rock-hard frozen chocolate – all the time watching that hole for the first sign of any movement at its mouth.

Five hours of watching and then, with no warning at all, a glimpse so brief and small I almost miss it. But the camera's locked on the hole on full zoom, and my eye's very quickly at the viewfinder. Nothing for a couple of seconds, and then an unmistakable black nose. Nose becomes muzzle, grows bigger to be full head and, in less than a minute, she has her front legs out and is resting on the snow in front of the hole, for all the world like someone leaning out of a window, elbows on the sill. She's looking straight at me, but she's not bothered. Magic. In one smooth movement she's out, standing up and then rolling and stretching on the snow. I've just pulled out of a close-up, thinking this can't get much better, when she sets off on a long glorious slide down the slope. Her eyes are closed; I'll swear it's in sheer pleasure.

I'm still following her on camera as she begins to head back, but when she stops and makes a couple of jaw-clap noises, I know immediately there's some action higher up. We've hit the jackpot! Looking down at mum from the den are two young cubs. It's all I can do to hold back a cheer; I'd had no idea there were any cubs. Clearly it's their first view of the outside world. They look very unsure of themselves and one seems to be shivering.

When Mum reaches the hole she immediately squeezes her bulk straight back in and they tumble after her. The whole excursion, from Mum out to all three back in, has lasted under five minutes, but right now my sense of relief is total. I simply and absolutely know that these bears are relaxed and already accept us. The coming days will reveal more very special moments. It's showtime on the slopes, and we have the front row seats.

Kong Karl's Land, Norway, Planet Earth



▲ The den entrance with footprints half-covered in snow where the mum and cubs have been out – the tracks lead back to the hole so they're all still in there.



▲ As the mum and cubs become accustomed to us, we reduce the height of the wall round our filming hide. The den is about 90m higher up the slope.



▲ Jackpot. The twins peer tentatively out from the den entrance. Taken with Canon EOS 1 + 600mm Canon; Fuji Sensia 100; 1/350 @ f8.



▲ In Mum's footsteps. The cubs are about the size of Labrador puppies. I remember this one falling into one of Mum's deep footprints and struggling to climb out.



▲ Birthplace. After the bears had left for the sea ice, we had a look inside the den. Taken on a Canon G10; 200 ISO; 1/30 @ f11.

The Ghost Leopard

Snow leopards are the stuff of legend. When I was offered the chance to try for them I was daunted but, deep inside, pleased. Here was the ultimate challenge. Two shoots totalling 11 weeks in the mountains of Ladakh, one in summer, the other in winter.

I didn't realise how challenging this would prove to be. I saw only one snow leopard in all that time. She walked for ten minutes through the snow on the opposite face of the valley, slept for two hours, and then walked out of sight within minutes of waking up.

I probably did go a little unhinged. We had a report that snow leopards might be seen a long way up one of the remote side valleys. So I decided to try there, but I wanted to absolutely minimise the risk of disturbance. I had a tent and supplies taken in by yak and asked that no one visit me for a week. I'd radio in every evening for a safety check, but I wanted to be left completely alone.

Every day I'd rise from my tent an hour before dawn, slip into my camouflaged hide on the side of the hill and wait, watch and listen for four hours. I'd come out mid-morning, rest up and then go back in at three to wait, watch and listen until dark. Did I see anything of them? No. Did I feel an inner peace? No, not really, I just kept going by reminding myself of the two mantras that keep any wildlife film-maker sane:

- Remember you can only be in one

place at one time: That's for when you come back to camp after a long day's walk and everyone tells you your quarry has been there, in sight, for most of the day.

- *Remember, if you're not out there, you'll never film it:* That's to keep you trying even when the mist's down and you can barely make out the path a few metres from the hide.

Yes, I must admit it was tedious in the hide; so few animals to watch for, so hard to stay focused. When you're in a situation like that, listening is as important as watching. The key is to tune into the natural ambience so you can detect any change. I visualise an animal (and that includes me) carrying around them a sphere of influence. When a predator passes other animals they will call out, so a chorus of alarm calls will precede its arrival. If I'm sunk deep enough into my awareness of the environment, I will pick up these subtle changes and I might get a little warning. But not this time.

My brief hours in the presence of a sleepy snow leopard were the only reward for hundreds of hours of searching. There's a certain ratio of reward to filming effort that you need in order to stay optimistic, and I must admit that by the end of that assignment I was well worn down.

Ladakh, India, Planet Earth

► *Top: Signs but no sighting yet; Bottom: My cave hide. Both shots taken on Nikon F90 + 20-40mm Tamron; Fuji Sensia 100.*



Holy Grail: The Seal Killers

Thirty-two years and ten days after I first heard about it, I finally witnessed my Antarctic Holy Grail: killer whales taking seals off ice floes, using coordinated attacks that show what I can only call super-intelligence.

Vague rumours of this behaviour first surfaced in January 1977. People at the Argentinian base in the Melchior Islands talked of orcas hunting seals on ice floes in the channels around the station. We looked for this behaviour when filming *Life in the Freezer* and came close to a kill when we found strips of blubber floating at a berg with orcas patrolling nearby. But fog patches hid any action.

We searched again for it during *The Blue Planet* and *Life*, and took a big step forward on *Life* when we followed an orca pod for almost 24 hours without disturbing them. But at 1am, it was too gloomy to see properly, and we lost them.

A year later, for *Frozen Planet*, we went south a little earlier in the summer, when there was still 24 hours of good daylight. That season we were rewarded with the most spectacular behaviour I've ever seen ...

Hunting in a pack, the whales 'spyhop' to check out a suitable target. Once a blubber-rich Weddell seal has been identified, there's a chilling inevitability about the outcome. The orcas swim round the floe several times appearing to decide on a strategy. Then, the final dramatic act. The killers swim together towards the floe, tails beating in time with each other to create a wave and dislodge the seal from the floe. Seals may manage to stay on the floe for one or two waves, but eventually they're washed into the water. We didn't see any escape alive.

Marguerite Bay, Antarctic Peninsula, Frozen Planet



▲ *The killers spyhop to check that the sleeping seal is a Weddell seal, particularly suitable prey. Canon 1Ds Mk 2 + 100-400mm Canon; 400 ISO; 1/500 @ f8.*

Life under water

In the company of whales

I've spent many weeks filming humpbacks in the Antarctic during the summer. But the murky, plankton-green waters off the Peninsula don't let you see them underwater in all their glory. For that experience you must travel to the blue coral seas off Tonga, where the females go to give birth.

The most vivid impression anyone has of whales is their size. That sounds obvious. But they do truly take on whole new dimensions when you experience them under water. Seeing them from a boat, you might catch a brief glimpse of a fin or their back breaking the surface or, if you're very lucky, perhaps a spyhopping head. But under water, the whole animal is in gentle motion before you.

When approached in the right way, 18 metres of curious mammal will hang in the water and a good swimmer can ease in close. 'Good' here means having an almost indefinable affinity with the animal and the sea. It's not just how you physically move in the water, it's what's going on in your head as well. 'Good' thoughts involve respect, fascination and a willingness to be friendly – when offered by you, these will all be reciprocated by the whale, until finally you're eye to eye and do indeed have a relationship.

Sue Flood and I spent 10 weeks in Tonga filming humpbacks with their calves for *Planet Earth*. In that time we had simply magical encounters with whales. Lole, our skipper, was a man in a million, a native Tongan who had

▲ When a whale is swimming horizontally, it can see things most easily that are directly below it. Also, the vertebrae in its neck are fused and so it can't move its head like we can. These two facts explain why this female is vertical in the water: she's taken up the best position for watching me. Canon 1Ds Mk 2 + 17-40mm Canon; Seacam housing; 200 ISO; 1/125 @ f8

PHOTO BY SUE FLOOD



▲ Clear visibility but gloomy low light. Diving under ice near bergs isn't for the claustrophobic

been on the water all his life. He never rushed, he was never flustered. Lole taught me that the first time in the water in the company of a whale, I should swim very slowly, and if I was lucky enough to see the whale, be content to keep my distance. "She'll know you're there as soon as you slip into the water," he said. "So give her plenty of time to grow accustomed to you. Stay at the limit of visibility, don't crowd her. Give her

a chance to get to know you." It was wise advice. With some whales it might take an afternoon of quiet following before I felt confident about going close enough to see it clearly. And even then, some were obviously more relaxed than others. Over time, we came to recognise the most friendly whales.

Tonga, South Pacific, *Planet Earth*, BBC.

Fact File

Determined from a young age that diving must play a big part in his life, Doug Allan graduated in marine biology in 1973. His first job was diving for freshwater pearls in Scotland; he then worked in the Red Sea with research biologists before running a dive school in Jersey.

In 1975, he read an article by a scientific diver recently returned from the Antarctic and decided to apply for a post with the British Antarctic Survey (BAS). This led to nine years with BAS as a diver, scientist, photographer and, finally, base commander.

It was a chance meeting with David Attenborough during his time with BAS that led to his decision to take a movie camera on his next contract as Base Leader at Halley Station. This gave him the chance to overwinter with emperor penguins and, on his return, Doug sold some of the footage to the BBC for their forthcoming series *Birds for All Seasons*. This led to more filming, and in 1985, he left BAS to try full-time filming.

His first film featured research diving under the ice on Signy Island, with the second being about Weddell seals. The learning curve on these early projects was steep but Doug never looked back. He pays tribute to the production teams he has worked with: "I've had the great good fortune to work with some of the best in the business. Films are truly collaborative

efforts, and when all the participants are in full song, the whole is for sure greater than the sum of the parts".

Doug has made over 50 filming trips to the Antarctic and Arctic to film wildlife and polar bear behaviour. He has also been on the high slopes of Mount Everest twice for the Discovery Channel. He has worked as a cameraman on many acclaimed series such as: *The Blue Planet*, *Planet Earth*, *Life*, *Human Planet*, *Frozen Planet* and *Ocean Giants*.

His awards for cinematography include: four BAFTAs, four Emmys, four Wildscreen Pandas, and recognition at many of the world's most prestigious wildlife festivals.

His camerawork and contributions to conservation and science have earned him three Honorary Doctorates and an Honorary Professorship.

Doug was awarded the Polar Medal from HM Queen Elizabeth in 1983 for his work with the British Antarctic Survey during three winters of diving and assisting scientists in Antarctica, and a second Polar Medal in January 2012 for his filming in the Arctic and Antarctic over the last 25 years.

Freeze Frame: A Wildlife Cameraman's Adventures on Ice is available through: www.dougallan.com
Price: £25 plus £6.50 p & p.



▲ Cover of Doug's book published February 2012

Doug Allan has generously given three copies of 'Freeze Frame' as prizes for GTC members – see page 57 to find out how you can be one of the lucky winners.

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