



## Stefan Christmann Profile

- Based in southern Germany, Stefan Christmann is a qualified astrophysicist, with a passion for nature photography.
- In 2005, he became the first international student to receive a scholarship from the North American Nature Photography Association.
- He has spent two years in Antarctica, the first time in 2011 when he worked as a scientist at the German Neumayer-Station III research base.
- Six years later, Stefan returned to the same location as a camera assistant for the acclaimed BBC series *Dynasties*, narrated by David Attenborough, this time to focus on the life cycle of emperor penguins.

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# Stefan Christmann

Everyone loves penguins and **Stefan Christmann** knows their life cycle better than most, having photographed them all year round for the BBC. Keith Wilson hears about the pain and joy of shooting in the coldest place on Earth...

In October 2018, I was in a huddle of about a dozen photographers at a conference in Germany craning my neck to glimpse one man, unfamiliar to many of us, holding an iPad as he swiped through a spectacular series of images that enthralled his peers. The man with the iPad was Stefan Christmann and the images were of a large colony of emperor penguins that he had spent 11 months photographing in Atka Bay, Antarctica. A month later, Stefan's images received worldwide coverage as the media stills for publicizing the BBC's new six-part David Attenborough-narrated series *Dynasties*, which documented the family lives of six different wild animal species. Episode two focused on a year in the life of the emperor penguins of Atka Bay. While Stefan's primary role was assisting the BBC film crew, he received his due recognition a year later when his penguin images won the 2019 Wildlife Photographer of the Year Portfolio Award.

A year on from our first meeting we are again in Germany, and this

time Stefan's status has transformed from the little-known man with the iPad to BBC camera assistant, award-winning photographer and keynote speaker to a packed theatre audience now admiring his images on a giant cinema-style screen. A year is a long time in photography...

**You've just won a pretty big international award. What was it like to hear that you'd won?**

The funny part is that all the category winners got to know in March and we had to sit on it until October! Even though you have all this information and you have been talking to the organizers about arranging flights and rooms, you still do not believe that you are actually the winner until they say your name on the night and you step on stage. I was thinking I really hope they didn't make a mistake and I'm just sitting here and nothing is going to happen, because this is really big!

**Would you say this the highest point of your career so far?**

Yes, without a doubt. This is by far the biggest recognition for my work that I have ever had. Winning the portfolio award was even more special, because you don't have only one good image that stands out, but you have to show a variety! They

**Previous page:**  
A pair of emperor penguins mating. The BBC film crew spent 11 months documenting the life-cycle of emperor penguins.

**Camera:** Nikon D810  
**Lens:** Nikon 400mm f/2.8  
**Exposure:** 1/400 sec, f/5.6, ISO800

**Below:** Winter sunset over the spectacular landscape of Atka Bay, Antarctica, taken on Stefan's first trip as a scientist when he stayed for 15 months.

**Camera:** Nikon D700  
**Lens:** Nikon 14-24mm f/2.8  
**Exposure:** 1.3 sec, f/11, ISO200

have to fit together; they have to flow as a story and they need to have a certain quality in order to be a successful set. And then, when you look at the names of the people who enter this competition, many of whose work I really love, and you are picked over them, it can be really hard to understand.

**In the Portfolio category you are awarded for six images, but you have to send in 10, so do you think the judges chose the right six?**

I would have loved to have seen one other image in there, just to make the story more complete, but I still think they chose six very strong pictures.

**Which one was that?**

It was of a dead chick. I feel this is showing the hardships of the environment that these birds live in, so for me it was a key frame to have in there as well, but it wasn't. There were maybe two other shots where I said, 'I really like them', but other people said they thought they were a little weaker. So it's always a balance and you never know if the jury will like the image as well.

**What was the story that you were trying to convey in those 10 images, because surely it's not an easy thing to do when you've shot so many photographs over such a long period?**

Yes, narrowing it down to a few is hard. You get emotionally attached to certain ones and it's hard to be objective and only pick the best. You always have the moments in your head, too, when you took these images, so it does make it rough.

**How many did you start with?**

Oh my God! My archive of all the photographs I have kept is around 30,000 images from that one colony

**“ I have kept around 30,000 images from that one colony – that one place with an area of just two square kilometres**



**Above:** A chick begins to hatch from the egg held on the feet of the male emperor penguin, where it has been incubated for two months.

**Camera:** Nikon D810  
**Lens:** Nikon 400mm f/2.8  
**Exposure:** 1/200 sec, f/5.6, ISO800

– that one place with an area of just two square kilometres, no more.

**Over what period did you take that enormous number of images?**

The 30,000 are only from my second stay, which was 11 months. This was the second time I wintered there. The first time I wintered there was back when I was a scientist, which was even longer, it was for 15 months and the second time was for the BBC.

**How did you come to be commissioned for the Emperor Penguins episode of *Dynasties*?**

When they saw my work from my previous stay they knew that here was someone who had photographic experience of this area, where they wanted to make their film. They approached me first as a consultant to tell them about what they would have to face: what kind of equipment they would have to use; what →

**\* THE HOT BOX**

**IN THE ANTARCTIC WINTER, THE *DYNASTIES* TEAM HAD A SIMPLE MEANS OF THAWING THEIR GEAR WHEN BRINGING IT BACK TO BASE. HOWEVER, THE EXTREME COLD MEANT IT COULD BE TEDIIOUSLY SLOW WHEN OUT IN THE FIELD...**

**How would you warm the equipment again at the end of a day's shoot?**  
We had a little cool box filled with heaters and when something didn't work, we'd put it in there for a few minutes to warm it up. However, you couldn't do this with electronics, because if you have any moisture in there, you can break things. That's one of the reasons we left the cameras out in the cold mostly. We only brought them in when we had to clean or service them.

We always brought back the batteries because we needed to charge them, and the memory cards with our images and footage. We had a Peli case, which was air-sealed and filled with silica gel, and then we slowly warmed it up. We opened it outside because the air is really dry and we put everything in there, then closed the case and brought it up into the warmth. We gave it a few hours at zero degrees and took it one storey up where it was a little warmer, maybe 5°C, let it sit there for two or three hours, then took it up again to the next level. It took seven hours in total to get stuff back into the base.



type of scenes they would see there; and how the life cycle of the penguins would evolve on the sea ice.

So, I was talking to the cameraman; I was talking to the producer; I was talking to the guy who was taking care of logistics. About two years into the project, they asked me to be part of the film team – they needed a third person on the team to help as a field and camera assistant and to take care of the safety aspects.

#### And for all this time you were shooting still images as well?

Yes. It was not the main focus of my work, but they said if I can take stills, as many as I can, it will help in having some of the marketing material for the programme itself.

#### Was the ambition and scale of the shoot something that surprised you in the beginning?

I immediately knew I was working with people who have done shoots like this before; who were very aware of the scale of such a shoot; and who knew exactly that everything had to be planned – if it was plannable in the first place, that is. That's what we worked on and it was, as we say in Germany, 'working with pros'. It really makes a difference when you don't

have to explain certain things multiple times. You talk to people, you tell them exactly what you need and they'll immediately understand and act upon it. Working like that was a really good experience.

#### Why you were working in Antarctica the first time?

I'm a physics major. I studied astrophysics in Tübingen in the southern part of Germany, and there was a person at our Institute who had also wintered at Neumayer-Station III. He was giving a speech about his time on the ice, and when I heard his stories, I knew from that moment, I needed to go there as well. So I wrote my application to the Alfred Wegener Institute for Polar and Marine Research, and they accepted it.

#### Was photography already an established interest of yours?

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I am one of the last people to start with slides and then move to digital

**Above: Thousands of emperor penguins gather to form a protective giant huddle to see out the winter months. Stefan had to take his glove off to make the adjustments to the tilt-shift lens to get this award-winning photograph.**

**Camera:** Nikon D810

**Lens:** Nikon 45mm f/2.8 TS-E

**Exposure:** 1/60 sec, f/11, ISO800

**Right: A family portrait taken in the middle of the Antarctic spring when the chick was nine to 12 weeks old. Barely 20 per cent of chicks survive their first year of life.**

**Camera:** Nikon D810

**Lens:** Nikon 400mm f/2.8

**Exposure:** 1/800 sec, f/11, ISO400

Yes. That started at the end of high school when I had my first visit to the US. We had a student exchange, I was 16 or 17, and we went over to Yellowstone National Park. It was a place I really loved. It was fall, so was a nice time to go, and I had a little point-and-shoot 1.3 megapixel digital camera with me – the photos I was taking were horrible, but what struck me most was that I could not capture what I had seen with my eyes.

My dad had a very old film camera, a Minolta SLR, and by using that I learnt how to place your focus, how to play with your aperture and shutter speed and that taught me how I could realize my photographic vision. It took many years to get it right, but it was a lot of fun and that kept me going.

#### When did you buy your first SLR?

I got that as a gift from my parents. It was a Christmas gift a year or two later. They bought me a Nikon F80, also a film camera. I was shooting slides for a very long time, so I am one of the last people to start with slides and then move to digital.

#### When did you do that?

That was late. My first digital camera was a D200 and that was in 2009 or 2010 – so quite late! →







**By then digital cameras had improved a lot in their resolution...** Yeah, 12 megapixels, I think, I used this for a long time and I only updated to a D700 when I first went to Neumayer-Station, but I had the D200 as a backup camera with the D7100 as well. I was mainly shooting with the D700 though.

**“The little bit of moisture in your skin freezes to the metal immediately and whenever you pull the finger off there’s a bit of skin that’s gone**

**What lenses did you take?** I had lenses ranging from wide-angle 14-24mm, it was a lens that I used a lot, but I also had a Nikon 500mm f/4. It was one of the bigger investments I made before going down there. I went from being a student to being a scientist, so I took all the money I had saved up and put it into this lens, took it down with me and tried not to break it because I didn’t have a backup... The second time I went down there I was getting paid by the BBC, so I had a much better reason to want to upgrade my gear. That’s when I got a D810, a fabulous camera.

**You wintered twice in the coldest place on Earth... What special measures did you take to ensure you could still function in those harsh conditions?** As you say, it’s about function. While

**Above: The leap of faith when fledgling penguins, aged between 20 and 24 weeks, take their first dive into the icy sea to hunt.**

**Camera:** Nikon D500  
**Lens:** Nikon 400mm f/2.8  
**Exposure:** 1/320 sec, f/5.6, ISO200

**Right: Full moon over the mid-winter landscape of Atka Bay, where the temperature rarely rises above -35°C.**

**Camera:** Nikon D810  
**Lens:** Nikon 24-120mm f/4  
**Exposure:** 10 secs, f/11, ISO100

you are taking the photos you’re not necessarily having a great time, because maybe the snow is blowing into your face and it feels miserable. But once you look at the image on the screen, suddenly there’s this rush of joy in your body – it makes up for all of this. There isn’t much you can really do, aside from ensuring that you dress accordingly. You’re always wearing very thick mitts, especially in winter, and there is no other way. You have to be extremely cautious with fiddly things. I was using a tilt-shift lens down there as well.

**Really?** Yes, in fact the shot of the penguin huddle was taken with a tilt-shift lens, because otherwise I would not have been able, with the little bit of light I had, to get this immense depth of field you can see.

**That must have been pain...** Painful to say the least!

**I was going to say painstaking, to get the adjustments the exact way that you wanted?** Yes, because that was one of the times I had to take the glove off and work on these little metal knobs which have been out there for hours and cooled down to -40°C. Once you touch it, the little bit of moisture in your skin freezes to the metal immediately and whenever you pull the finger off there’s a little bit of skin that’s gone. It pulls. It’s like little needles being stung into your fingertips. So, it’s not nice, but if you’re really focused on the shot you almost don’t think about it. You know it’s going to hurt for a minute or two. I’ll do my adjustments, then I’ll put my hand back in the glove and try to pump some blood in there to get the hand warmed up, because the last thing you want to get is frostbite.

**For a picture like that it paid off, but I imagine you only want to try it once to avoid going through all of that pain again?** I probably would have given it two goes! If the first one had not worked out I would have tried again, but maybe with a little break after.

**Were there any times when the conditions were so severe that the cameras and lenses couldn’t cope?**

It was quite surprising how well everything worked in the end. Even down to -33°C everything worked really well. The only thing that got sluggish after a while were the screens on the camera. If you’re looking at them the crystals get very slow and you can’t use the screens anymore, so it is good to have the optical viewfinder. Any mechanical things get sluggish when it’s really cold for a long time. At first, when we got out everything was working fine, but as things cooled down below -35°C bits would start to act up. Maybe the mirror would go up but not down again, because it was too slow. Sometimes the tripod head we were using would just lock up.

**You’ve spent over two years in total in Antarctica and *Dynasties* has been screened worldwide. Do you have any reason for going back there in future?** Well, there’s always a reason to experience it again, but other than that, story-wise I don’t have anything planned in the immediate future. Mostly because I don’t want to do this to my wife again! Staying there for such a long time is not only about putting in the time for one person who’s down there shooting, but it’s also putting in the time from the person who’s staying back at home. It has to be a joint effort in the end.



**\* THE 1.5 KILOGRAM DIFFERENCE**

**FOR HIS SECOND STAY IN ANTARCTICA, THIS TIME FOR THE BBC, STEFAN COULD AFFORD TO UPGRADE HIS GEAR, INCLUDING A LENS THAT PROVED TO BE VITAL IN MORE WAYS THAN ONE...**

**For the BBC *Dynasties* expedition I got the Nikon 400mm f/2.8. That was the biggest investment I have ever made for a lens and will probably remain as such for quite some time to come!**

**Was that the E version, the light one?** Yes, the light one! (The AF-S Nikon 400mm f/2.8E FL ED VR) It’s still not that little but I believe it’s about 1.5kg lighter than the previous version and I knew I would be carrying it on my back all day, so that’s why I put in the extra cash – to save 1.5kg and my back!

**Are you glad that you did?** I am glad because it was probably the lens that I had on almost every time. It suits my style and it’s a joy to work with. It has yet to fail me.

**Next Month**  
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**Where do you think your photography will take you now?** I have no idea. I’m absolutely open to ideas. I’m still working a regular job.

**What job is that?** This job is for a German company who makes cameras for automotive applications. It’s driver assistance and I’m working on the cameras that sense the streets, any objects on the side of the road, for example animals. If the camera sees something like that the car slows down, or it might brake if it could lead to an impact.

**That’s a rather interesting mix of your physics training and photography experience!** Yes, it is, but I’m at a turning point now... Do I want to lean into the other direction a little more? Because if you want to go on shoots for the BBC then you need to have the time, you need to be able to be away from home for four or five weeks at a time.

**Well, that’s a lot less than four or five months, or even 15 months!** That’s true. Yes, four or five weeks might seem like bliss to my wife. She might be a bit happier about that, to be honest! **M**