

Diving Antarctica

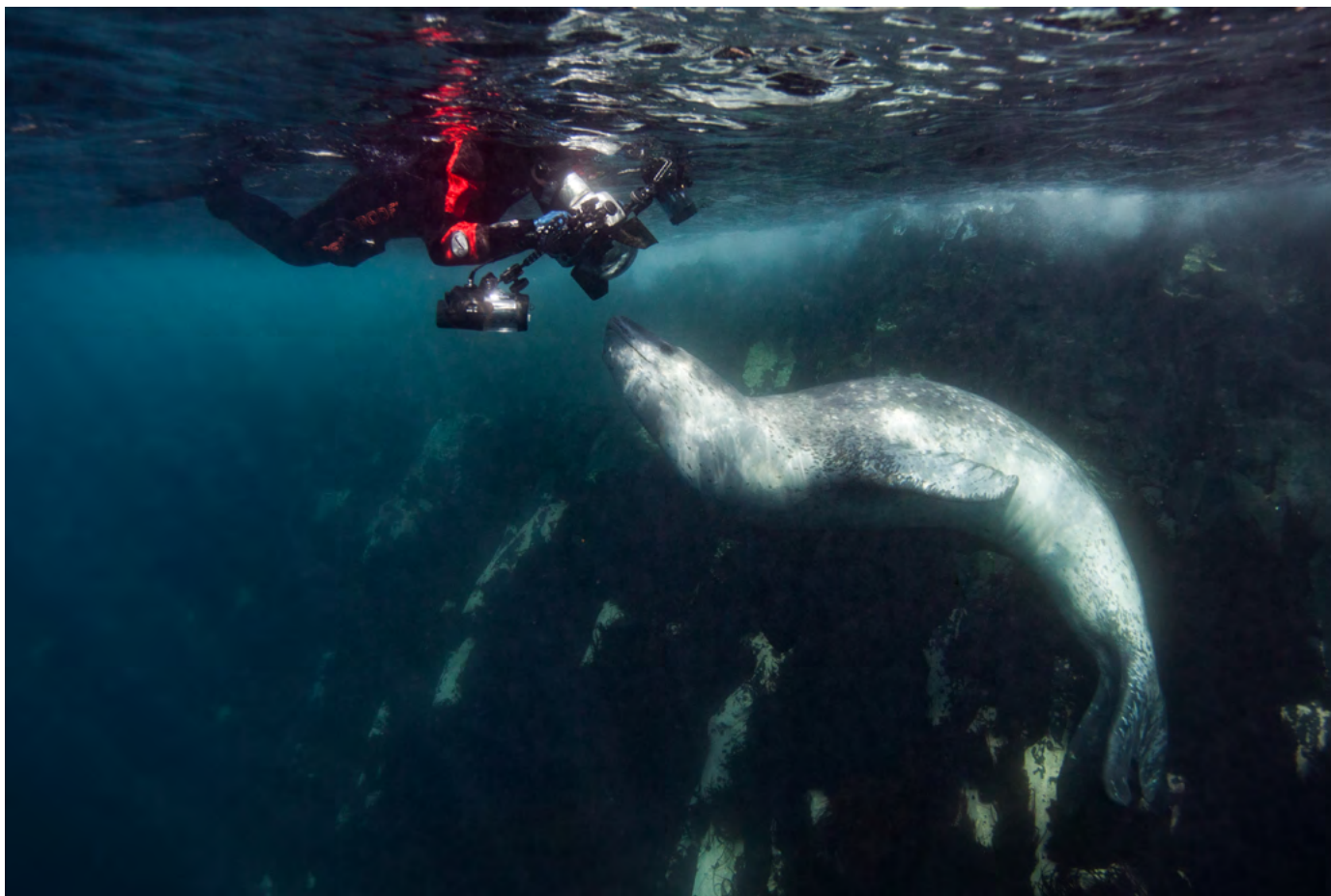
with Scott Portelli

Antarctica must be one of the last untouched remote destinations on the planet. Snow and ice cover the continent in a blanket of white. Surrounded by sea ice, the continent supports a thriving array of wildlife above and below the surface. In the Southern Ocean, summer signals a time to feed for all its marine creatures. Whales, seals, penguins and sea birds all feed on the abundant supplies of krill that are teeming in this sub-zero environment.

Getting in the water in Antarctica comes with its challenges, water temperature on average is -1 degree Celsius which means you are going to get cold, it's just a matter of time. But having a good drysuit with multiple layers is what makes the difference between a good comfortable dive or a short frustrating dive. I use a Waterproof D7 pro drysuit and ultima dry glove system when diving in Antarctica. This keeps me very comfortable and lets me average about 45 minutes diving and about 1 hour on the surface if snorkelling before I start to feel the cold.

Equipment is the most important factor when diving in freezing water. Regulators need to be sealed and ice rated to reduce the chance of free flow. Divers should be equipped with two fully independent regulators. Most configurations will involve a "Y" valve with 2 sets of regs, both with air sources for drysuit inflation and second stage support. So if something goes wrong you can easily switch to the additional set up.

The cold can also play havoc with your camera



equipment, and there are a few tips and techniques I follow for each dive to ensure less chance of issues with my camera gear.

Bubbles on your dome port – In cold water bubbles will continually form on the dome port as the cold water aerates the glass or acrylic port. This can ruin some amazing photos as they are very difficult to remove in post-production. So a few simple tips.

1. Have a tube of mask anti-fog gel or liquid and coat the surface of your dome port before you get into the water. This will help reduce the aeration

on the dome port. If you are doing split shots, you might also want to ensure there is a layer on your dome so the water beads off the glass better and you reduce water blotches in your photos.

2. Be conscious that aeration will form on the dome lens and always carry a small chamois cloth or use your gloves to brush the surface of your dome regularly while in the water. If you get into the practice of checking your dome regularly, you will reduce the chance of a photograph covered in air bubbles.

Lens fog/condensation – the warm and

the cool air will create condensation inside the housing and your camera which may fog your lens or dome port, try and set up the camera in a consistent temperature and avoid opening the camera housing until the equipment has returned to room temperature. You can avoid damaging your equipment by simply making sure the environment you are working maintains a consistent temperature when assembling your gear. Sometimes it is even worth keeping your housing outside in the cold environment.

Keep your batteries warm – before you set up your camera and get underwater, make sure your batteries are fully charged and keep them warm as long as you can, before you assemble your camera and underwater housing. Battery life is dramatically reduced in low temperatures, so make sure you have plenty of spare batteries readily available. When you are out on the water diving, keep a dry bag with you with any spare equipment you might need, as you never know when you might need to change a battery or card. However, in most cases you want to avoid opening the housing and camera on the water, as it only takes a few drops of salt water or a stray hair to damage your equipment.

Checklist – set yourself a simple to follow checklist to avoid issues and mistakes before getting in the water, because once you are underwater there is not much you can do if you have mistakenly put the camera together incorrectly or forgotten a crucial part. And always test your camera equipment and lighting/strobes on the surface before you hit the water. Some things to avoid and what I put on my checklist:

1. Manual focus is off on your lens and auto focus is working for the chosen lens. I have been shooting star shots the previous night and had



my camera set to manual and my ISO very high and my lens on manual focus, then put it into the housing and been underwater only to realise when I returned to the surface that nothing was in focus. Some housings may allow you to change the focus manually but in an environment, such as Antarctica, you need to be reactive and have your equipment optimized for the shooting opportunities.

2. This is one mistake I have made on a few occasions, leaving the lens cap on the camera inside the underwater housing. You find it strange that everything is black. Once you are underwater

there is nothing you can do about this without resurfacing and taking a risk in opening your underwater housing on a moving boat. Add this to your checklist.

3. Dust on inside of the dome – It sounds simple, but check the inside of your dome to make sure there are no loose dust particles moving around. Yes, these can be removed in post-production if you are shooting stills, but it is difficult to remove marks when you are shooting video. This is the difference between a nice crisp visual that people enjoy watching or a mark on the video that you can't help



but notice which ruins your beautiful video.

4. Memory card is empty and ready to shoot – it is easy to forget to delete or format a memory card before each shoot and then realise after you have shot a few hundred frames that you are running out of space. Always back up your cards after each dive and ensure a clean memory card is ready for each time you get in the water. Also, some cameras will let you shoot without the memory card, I always turn this feature off, as this is a mistake you can't afford to make

5. Check your o-rings on your camera housing as the cold and warm air can expand and contract these,

they should be clean and free of any particles, it only takes one strain of hair to flood a very expensive housing. Always carry spare o-rings as well, as you never know when you might need to change this due to the weather affecting the elasticity of the rubber seals.

Cold Hands – One thing I find when shooting in Antarctica is your hands get really cold (obvious, I know!) But because your hands are often holding your housing and your fingers are wrapped around the handles, they don't move as much and will get a little stiff. What happens then is you find it hard to press the buttons on your camera housing. You

also want to wear warm gloves under your wetsuit but not so thick that you can't easily change the settings on your camera. Look for warm thin gloves and check you can easily change the settings on your camera.

The Wildlife

The reason most divers and underwater photographers come to Antarctica is the chance to see large mammals in the water. At the top of the list is the Leopard seal, Antarctica's apex predator. Although they have a bad reputation exacerbated by negative media, these guys are impressive interactive creatures. At times, they can be intimidating,

but with all creatures I believe if you make the effort to understand their behavioural attributes, then the encounters are very rarely dangerous or risky.

Leopard seals are truly fascinating creatures, they approach with caution but often come baring teeth and blowing bubbles. More as a display of dominance than a form of aggression. As they get closer they will move their heads in an intentional head butting direction, once again not with the intension of hitting you but to assert themselves as the top predator, and if you are happy to oblige by flinching as this prehistoric creature makes its point, then the



intensity drops dramatically and the whole behaviour changes to a relaxed curious encounter.

You simply must go through the process of showing the Leopard seal that they are dominant, which is easy the first time you get in the water with one as they can be intimidating. But these guys are intelligent and the more time I spend with them the more I realise they have some complexity to their behaviour, whether hunting, socialising or interacting with divers there is a specific way they process this.

Penguins are probably the most common creature found in Antarctica and with many different species they

all react and interact differently with divers. Some Penguins are curious and will come up and see what is going on while others are cautious and prefer to avoid a big floating black creature on the surface.

Some of my best penguin encounters have been with the Gentoo penguins which are in abundance in Antarctica, these guys will zip right past you less than a metre in front of you. If there are no real predators in the water, they are more likely to be curious and come in for a closer look. But often you need to hide behind a rock or ledge in the water and wait for them to come past.

I have had some nice encounters





where I have simply drifted towards the penguin and watched them splash around in small rock pools close to their colonies. A soft slow approach has gotten me close to these guys before, but the encounters can be brief as they are a little less trusting, which is understandable with everything wanting to eat them.

The various seals you find around the Antarctic and sub-Antarctic regions include Crab Eaters, Weddell, Antarctic Fur, and Leopard Seals. But baby elephant seals must be my favourite. These seals are extremely curious and if you sit on a beach near them, sooner or later a 150-kilogram

baby seal will come up and snuggle next to you. These guys use touch to communicate and will often approach you in the water and grab a fin or simply barrel you over as they get right up in your face to rub against you. As babies these guys are curious and non-aggressive.

It is when they become adults and even more so during mating season that you really see the damage one of these guys can do. Bloody battles incur over the best space on the beach and the number of females one can gather in their harem. This is not the best time of year to get in the water with these 1000kg, 7-meter-long



beach masters. But you will see some impressive behaviour.

Ok so the one thing we haven't spoken about yet is Icebergs. Photographing icebergs is often difficult as you need to find ice that is grounded to avoid the chance of an iceberg rolling and you getting caught under it. This is especially important on a dive as you might be traversing the ice wall of an iceberg and not notice the movement of the ice until it is too late. So, photographing and diving near ice is something that needs to be taken seriously.

Ok, enough with the warnings, on a positive side 'Ice is Nice'. Ice is great to photograph, whether you are shooting a small iceberg on a dive or trying to get that split shot that shows the extent of the iceberg, it is always an impressive subject matter to capture. One of the main issues you find with icebergs is they are so very bright and if you are trying to do split shots you need to consider the dark water below and the bright white ice above which may require you to stop down to expose correctly as well as capture the depth of field to keep both above and below in focus.

There are not many operators running dive and snorkel options in Antarctica, but the key to a successful trip is going with the people that have the experience and knowledge to put you in the best position to see wildlife and ice. These trips offer so much to underwater photographers and wildlife enthusiasts above and below the surface, if it has been on your bucket list for a while, then you should try and tick it off, it is the most amazing place on the planet.

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