

Aurora Expeditions' Polar Photography Handbook

Helping you capture the best of Antarctica & the Arctic



“ The photography was magical... the light, the wildlife, the landscapes... there were endless photography opportunities! ”

L. Jackson, Antarctica, 2015



INTRODUCTION TO POLAR PHOTOGRAPHY

When travelling on a polar expedition you'll encounter some of the world's most breathtaking and inspiring vistas. Whether it's the sculptural beauty of Greenland's glaciers, a hunting polar bear on Spitsbergen's pack ice, or the wide-spread wings of an albatross across the Southern Ocean, photographing in the Polar Regions is a rewarding experience.

However, as with all types of photography, shooting in the Poles can present its own set of unique challenges. Ice and snow are beautiful but they can be difficult to capture, while the cold can be a strain on both your digital equipment and you. Wildlife usually requires a lot of patience and weather may not always be at its best.

So, to help you prepare for your exciting polar journey, we've put together our Polar Photography Handbook. Designed for all levels of photographer – from the smartphone snapper to the amateur photographer – inside you'll find everything from photography basics to expert tips by our team of polar photography guides.

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PHOTOGRAPHY BASICS

Here are a few key tools and terms to familiarise yourself with before your expedition.

APERTURE The size of the aperture opening refers to how much light enters the camera and is measured in f-stops. The smaller the f-stop number, the bigger the aperture opening ie: f/1.8 will let in more light than f/11.

BURST RATE The number of photos a camera can take in a second. Higher burst rates can be useful for shooting fast-moving wildlife such as birds.

COMPOSITION How your subject, foreground and background are positioned in the frame.

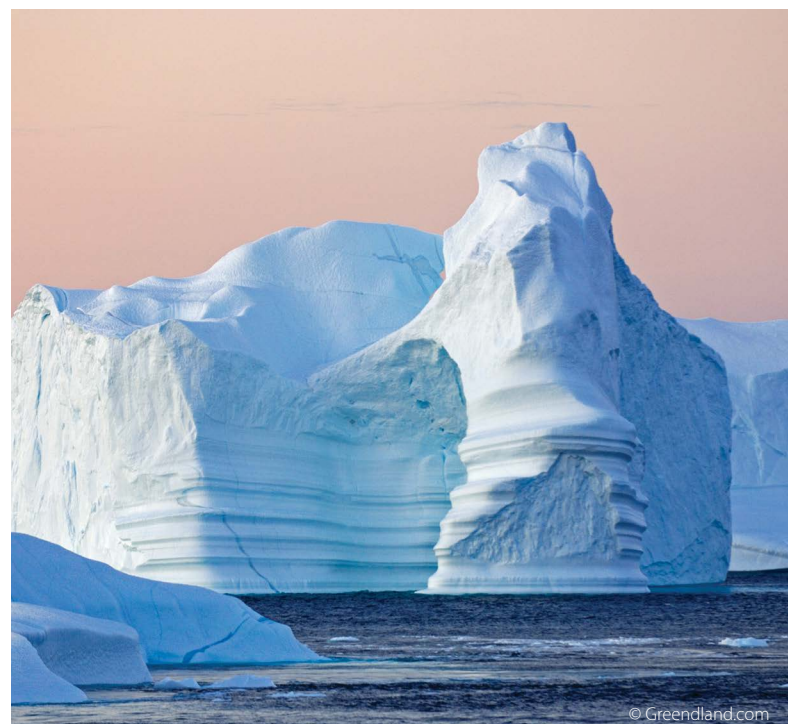
DSLR Digital single-lens reflex camera. These cameras have interchangeable lenses and use a built-in mirror to help you frame images through the camera's viewfinder.

DEPTH OF FIELD How much of the image is in focus, or 'sharp'. The more elements that are blurred, or out of focus, the shallower the depth of field is said to be. I.e. an image with a shallow depth of field may only have subjects five metres away from the camera in focus, with anything closer or further away out of focus.

EXPOSURE The action of light falling on the camera sensor, allowing it to translate the information into an image file. The way an image is exposed is controlled by aperture and shutter speed. Under-exposed images appear dull and dark, with over-exposed photos looking bleached or overly bright.



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FRAME Another word for photograph, image or shot. Framing also refers to the process of composing a photograph.

FLASH Either built in to the camera body or available as an accessory, a flash helps to fill the scene with additional light.

ISO Originally a term used in film photography, ISO level determines the light sensitivity of the image file. The higher the ISO, the more light the camera will be able to pick up, which is useful in low-light situations. However, higher ISO levels can compromise image quality due to noise and contrast issues.

NOISE Also borrowed from film terminology, noise refers to the grainy, gritty effect sometimes apparent in photos shot with a high ISO. It can require correction with post-production editing software.

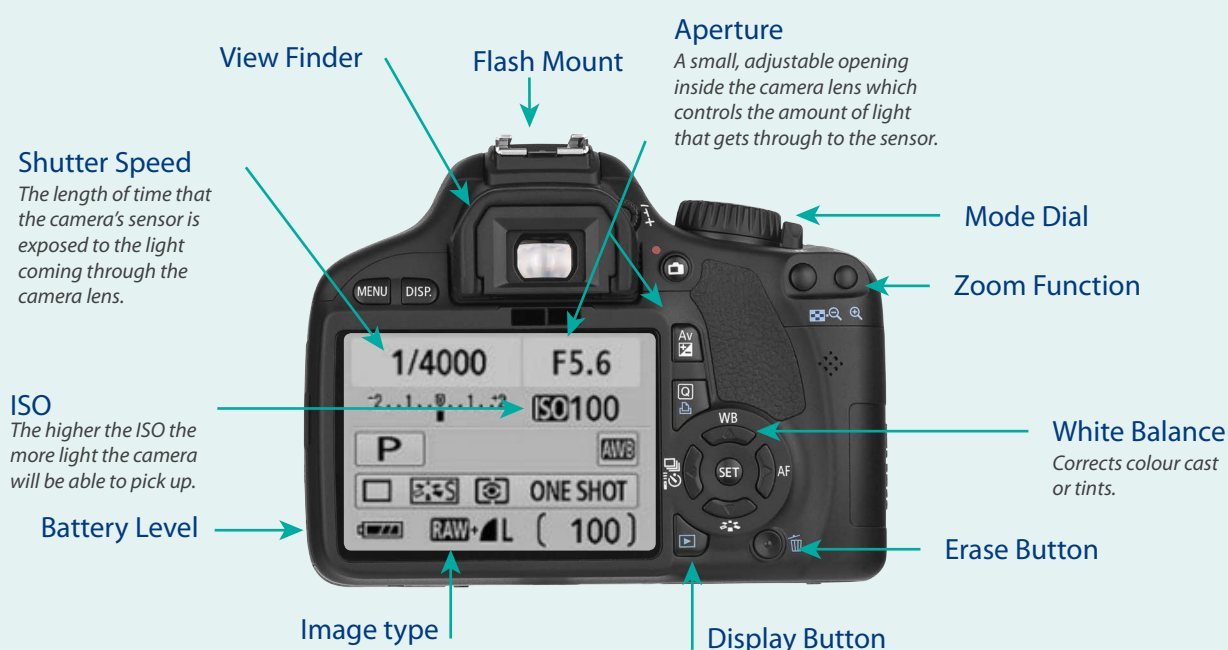
SHUTTER SPEED Long exposures are useful for low light scenes. Faster shutter speeds effectively 'freeze' movement – ideal for fast-moving subjects.

WHITE BALANCE A function that aids the camera in correcting colour casts or tints created by different light sources.

ZOOM LENS A lens with variable magnification for shooting scenes both at close- and long-range.

GETTING TO KNOW YOUR CAMERA'S FEATURES

All camera makes, models and brands will have their own features. Here is a basic example of where you can expect to find them and what symbols to look out for.





THE BIG DECISIONS

Don't skip this part before you start!

COMPOSITION & FRAMING YOUR PICTURE

Good composition is often about what you leave out of the frame – having too much in one photo can often distract from the real subject of the image. However, while isolating your subject can create a less cluttered image, it is important to consider whether your subject would benefit from being juxtaposed with other elements to give a sense of scale. For example, a picture of a giant glacier could be transformed by adjusting the composition to include a small Zodiac boat bobbing in the water, or some seals lazing nearby.

When you have two or more subjects separated in distance, (e.g. a person and a ship) aim to leave a space between them to prevent the subjects merging.

CROP SENSOR VS FULL- FRAME CAMERA

Capturing a high degree of detail, full-frame cameras are often used by professionals. However, these cameras and their corresponding lenses can be both heavy, and costly. Any other camera, be it a DSLR, point-and-shoot/compact, smartphone or tablet can be classified as having a 'cropped' sensor.

Which to choose?

If you want to make a start in professional photography, or need the highest possible image quality for large-scale prints, go for full frame. However, in most cases, a crop sensor camera, especially a DSLR, will be more than capable of handling the dynamic shooting conditions on your expedition.



RAW VS JPEG

With a JPEG file, the image is processed and compressed in the camera, applying settings such as exposure, colour temperature and white balance from the time of capture.

Because JPEGs have a smaller file size, much of the fine detail is 'lost' in the compression process. JPEG resolution can also mean you lose some of the picture quality if you decide to crop the image later.

A RAW file captures all the information from your camera's sensor without processing or compression. Consequently, the files can initially appear dull, or flat. However, they provide far more potential for you to correct bad exposure, plus enhance colours or white balance in editing. RAW files are also often over double or triple the file size of a JPEG, meaning you might need to bring more memory space on your expedition.

Which to choose?

If you're going to make 6x4 prints for a family album or share your photos on social media, a medium-to-large JPEG is more than sufficient for capturing the spirit of your adventure. However, if you are going to use your photos for a portfolio or display them in a large format, it might be worthwhile shooting in RAW – just be prepared to spend extra time editing your images!



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UNDERSTANDING YOUR SURROUNDS

Adjusting to the environment and weather conditions.

WILDLIFE

Shooting wildlife is always challenging. Get your technique right, however, and you could be rewarded with some amazing shots. It's said that the most interesting wildlife photography involves the three F's: fighting, feeding and frisky!

While a zoom lens is often essential to good wildlife shots, be sure to include some of the creature's surroundings in frame. Flash photography can disturb animals, and is not recommended.

When you're on land, getting down lower to the animal's level can create a more engaging image. Always listen to your guide about maintaining the appropriate distance from wildlife.

WEATHER

You may encounter some dramatic weather, but don't let that discourage you from getting great photos. Moody skies, filtered sunlight and rain make for some theatrical shots, so play around with your shutter speed and aperture for the best exposure.

And considering you'll be travelling during the summer months, you'll enjoy the benefits of the Midnight Sun – a natural phenomenon that allows nearly 24 hours of daylight the closer to the north or south pole you travel. Given this, sunrise and sunset last longer at the poles, meaning you'll have plenty of time to plan for your perfect shot.



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SHOOTING WITH A SMARTPHONE OR TABLET

Smartphones and tablets aren't capable of handling low-light photography as well as a DSLR. In these scenarios, smartphones will automatically use a slower shutter speed to absorb as much light as possible without a flash. This means you'll need a stable position or even a tripod to get a clear image and avoid camera shake. Remember that slower shutter speeds don't freeze movement as well as a faster speed would, so stick to more stationary subjects such as landscapes.

In addition, as smartphone cameras rely on digital, rather than optical zoom, your image resolution will decrease the more you zoom in, making the images grainy. Using your camera's default zoom settings and shooting in good light will help keep your images sharp.



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WHAT TO EXPECT IN THE POLES

Be prepared for your upcoming polar adventure

EARLY MORNINGS AND LATE NIGHTS

Prepare to profit from the changing light late and early in the day when light is at its best. This does mean 5am (or earlier!) wake up calls!

ROCKING AND ROLLING

Sailing the high seas is an adventure, so you should be prepared for some bumpy rides. It is advisable to always wear a camera neck or wrist strap to stop your gear going overboard. Also, remember to put yours and others safety first and keep one hand free to hold onto rails when seas are rough.

ADVICE FROM OUR GUIDES

Venturing into these raw environments is not something you do every day, but rest assured, you can turn to our experienced guides for assistance throughout

your voyage. Our photography guides offer lectures, workshops and one-on-one tuition throughout the trip and our naturalists and historians are always on hand to share their knowledge of what you're photographing.

DON'T GET TOO ATTACHED

You'll be shooting in some harsh environments, so there could be damage to your equipment. If you are worried about damaging your equipment we recommend purchasing a travel insurance policy that will cover your gear.

GETTING WET

You'll be surrounded by water on board the *Polar Pioneer*, so make sure you come prepared with waterproof gear. Dry bags are great for Zodiac rides, or waterproof casings for body and lenses are available for most camera brands.

WHAT NOT TO EXPECT IN THE POLES

Wildlife on demand Remember, the poles aren't a zoo, the wildlife is exactly that – wild! Our team know where to look and will often search out the wildlife we are all wanting to see, however keep in mind that sometimes wildlife sightings are down to luck. In the Arctic, wildlife can be a bit shy, so you might have to be extra patient.

Your photography guide to know all about your camera

Each photographer uses different brands and equipment, so it is best you become familiar with your own before you leave. Check out YouTube for handy tutorials.

To use someone else's computer for processing It's best to bring your own, rather than relying on others. Don't forget a good quality storage device to transfer your photos from your camera and back them up.

POST-PRODUCTION & EDITING ON THE GO

Some of the most common photo editing software includes:

Adobe Lightroom A user-friendly program that allows you to adjust colour, contrast and apply effects as well as spot-correct small defects. Designed for photography post-production and managing multiple files. lightroom.adobe.com

Adobe Photoshop A powerful editing suite giving full control over images. Requires some training to benefit from more advanced tools. photoshop.com

Google Picasa An intuitive image editing program allowing for light and colour adjustments as well as various filters. picasa.google.com



Bear in mind that if you're shooting in RAW, you'll need a specialised program to manipulate your files.



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The Polar Photographer's EQUIPMENT CHECK LIST

<input type="checkbox"/> Camera body	Waterproof bodies are ideal to avoid gear-damage at sea.
<input type="checkbox"/> Camera lenses	Take two lenses if possible, one wide angle for landscapes, and a good zoom for wildlife.
<input type="checkbox"/> Polarising filter	Helps to protect your lens from scratches while cutting out glare from the sea or snow
<input type="checkbox"/> Computer or tablet	Backing up photos from your camera onto a computer or tablet as you go will ensure you don't run out of space on your SD card.
<input type="checkbox"/> Storage device	Vital if you're shooting large RAW files. Solid State hard drives (SSD) and USB sticks tend to be stable options.
<input type="checkbox"/> SD/CF cards	Bring multiple storage cards for your camera. Look for cards with a write speed of 10 MB/s or higher if you're planning on shooting fast bursts to capture wildlife.
<input type="checkbox"/> Waterproof casing/dry bags	Essential, even if you have a water-resistant camera body.
<input type="checkbox"/> Lens cleaning kit	Helps protect your lenses from saltwater splashes and dirt.
<input type="checkbox"/> Batteries	Two or more is ideal, as batteries tend to lose their charge faster in cold weather.
<input type="checkbox"/> Point and shoot/compact camera	Many experienced photographers travel with a backup if travelling to a destination they won't be returning to any time soon!
<input type="checkbox"/> Battery charger	If you have multiple chargers, it may be a good idea to bring a double adapter or even a power board so you can plug them all in at once.