



Travel

From the Arctic to the Serengeti, global nature photographer Daniel J. Cox

DUST & SNOW



The wind is howling—not sure of the speed exactly, but the weather report suggested gusts of 30 mph or more with a wind chill in the area of -50° F. Wind chill is an understatement when the ambient temperature is already -30° F. The word “chill” seems a little underhyped. It has been two hours, and I’m still kneeling in the icy snow, my kneecaps starting to feel like frozen saucers. I’m bundled in a parka, wearing heavy goose-down pants, boots the size of orange crates and gloves stuffed with hand warmers.





Just days earlier it was a different story. A ball cap replaced my hood, a T-shirt took the place of my parka, shorts substituted for down outerwear, and the only wind I was worrying about was tropical in nature and most often considered a breeze. The temperature was in the low to mid-80s, and the subjects were more plentiful. I was on an African safari, and my biggest concern

was the Kenyan government's problems with their recent election.

Working as a traveling natural-history journalist, I often move from one extreme to the next. I've been asked more than once, how does your body adapt? Equally as important is how I prepare my photography equipment for such incredibly extreme climate changes. The answer? Knowledge. Know the conditions in which you'll be shooting. It sounds simple, but I've been on more than one trip where I've talked to people who had no idea how cold it might get and how difficult photography was when they were freezing.

Equipment Considerations

Let's start with cold weather. It doesn't have to be Canada. In fact, much of the information I plan to share here was originally put together for our workshop participants who joined us in Yellowstone this past winter. Yellowstone can get just as cold as my recent trip to Hudson Bay, Canada, and much of the gear I had in Canada I also brought to Yellowstone.

When shooting on snow, I'm constantly referring to my histogram. Exposing for snow in the days of film was always a bit tricky. It shouldn't be any longer. Make sure the right side of your histogram isn't climbing and moving out of the right side of the histogram graph. If there's lots of snow in the photo, the peak of your histogram should be weighted heavily to the right, but not off the chart. This will give you true whites with detail.

Cold temperatures kill batteries fast. I tested my Nikon D300 battery by placing it in my home freezer. The inside freezer temp was -20° F. I placed a completely charged battery in the freezer, bringing it out and inserting it into a camera every 15 minutes. Within 45 minutes, the battery registered dead even without use. However, once I warmed the battery, it registered full. When I'm in the field photographing subjects such as the Northern Lights, I carry two to three extra batteries in my inside pants pocket, keeping them warm. When the camera battery starts to fail, I swap it

LEFT: Masai giraffe travel across Kenya's Masai Mara Game Reserve in the heat of Africa. BELOW, LEFT: A Thomson's gazelle herd waits out a pounding rain in the Masai Mara Game Reserve. ABOVE: Photographer Daniel J. Cox shoots in the extreme cold of Churchill, Manitoba, Canada. BELOW: A mother polar bear and her cubs play near Cape Churchill in winter.





LEFT: A bison forages for food in the snow in Yellowstone National Park, Wyoming. **ABOVE:** African elephants traverse the Serengeti Plains at sunrise in the Masai Mara Game Reserve, Kenya.

out with a warm one from my pocket.

Shooting in cold temperatures causes serious problems if the camera and lenses are brought into a warm environment, like a lodge, without protection. The issue is condensation. I use large plastic garbage bags for my larger telephotos and smaller Ziploc® bags for the shorter lenses. I make sure the lenses and cameras are placed in the bags while I'm still outside.

Then I place them in my Lowepro backpack, which acts somewhat like a cooler, allowing the equipment to warm slowly. The gradual warming, along with the plastic bags, saves the equipment from the ravages of condensation inside and out. Additionally, I carry a small one-inch-wide paintbrush for dusting snow off lenses and bodies before I put them back in the gear bag.

Many shooters who work in the cold suggest changing the lubrication on a tripod's leg locks. My Gitzo doesn't use any grease, and the leg locks are designed to operate properly in the cold without lubricants. Check with your manufacturer before you delve into lubrication.

Staying Warm In The Cold

Cabela's Saskatchewan Pac Boots are my choice for warmth and maneuverability. They're exceptionally warm due to thick soles, which is the key to keeping your feet warm. You want the sole to be at least an inch thick, and more is better. The further your foot is from the cold and ice, the warmer your feet will be.

From Hot To Cold: Camera Care Tips

Shooting in different temperatures requires a different set of rules for your camera

COLD CONDITIONS

- Moisture kills cameras. Use a plastic bag to stop condensation from forming on your high-tech electrical cameras.
- A well-padded camera bag is essential for keeping condensation out of your cameras. The thicker the camera bag padding, the slower the camera warms.
- In snowy conditions, use a one-inch paintbrush to remove the larger concentrations of snow before placing the equipment in the bags.
- Keep extra camera batteries inside your coat next to your body. Once the battery in the camera gets cold, swap it out for the one in your pocket.
- If your manufacturer calls for it, change the grease in tripod legs for easier use in super-cold temps. It's possible to find cold-weather grease, which allows easier tightening and loosening of tripod leg closures.

WARM CONDITIONS

- Use a large enough case or bag to carry all gear to help alleviate dust. I use the mid-sized Lowepro Pro Roller 2, which holds a camera body and a 200-400mm lens with the lens shade attached.
- A damp towel placed over a large lens and camera body reduces dust. Obviously, the towel shouldn't be dripping wet. Squeeze out all the excess moisture before using this method.
- Use canned air for cleaning the sensor or the Giottos Rocket Blaster. Foreign travel no longer allows me to carry canned air, so I get by with the Rocket Blaster.
- A one-inch paintbrush comes in handy for dusty conditions, too. I use it to remove the day's dust that has accumulated.
- Take as many camera bodies as you can afford. If you can put one lens on one body and not change it the entire trip, you'll cut down on sensor dust dramatically.

A synthetic T-shirt next to your skin wicks moisture if you're doing any activity that might build a sweat. I also wear a heavy shirt of some kind. I like the L.L. Bean or Cabela's heavy chamois shirts for this layer. Many good companies make pile jackets. While most of them are similar, some offer the added benefit of a

wind-block material. I currently use one by REI that has the wind block, and it's more comfortable when worn separately.

I wear down sweaters, as necessary. The North Face makes the Nuptse; Marmot, MontBell, Mountain Hardware and others make good ones as well. These aren't typically outer shells, but more of

a lightweight sweater type of garment filled with premium-quality goose down. A Gore-Tex® or equivalent outer shell, typically produced as a raincoat, can be worn separately. This covering on top of everything I've mentioned is very warm.

For ultimate warmth, add the down parka. I've been wearing the Snow Mantra Parka from Canada Goose. It's heavy for a down parka, but its weight is due to the much thicker material used for the coat's outer shell. It's nearly bulletproof, and isn't easily ripped or damaged like most down parkas. The most important feature is the hood. It's a snoot type that



ABOVE: Sunset near Churchill, Manitoba, Canada. **LEFT:** The breath of these barren-ground caribou shows how cold it is in the Arctic National Wildlife Refuge, Alaska.



extends four to five inches out from the face when it's completely zipped up. This is an extremely important feature if the wind is raging and the snow is blowing.

A good pair of pile pants is essential. They come in several different weights; I prefer a mid-weight that goes next to my skin. Over this layer, I wear a quality pair of outer rain pants one size larger than I'd wear normally to provide plenty of room for additional gear underneath. Zippers up the sides are a must, preferably those that run the length of the leg.

Extreme Photography At The Equator

My shoot in Africa was only three days prior to my shoot in the Far North, and these two extremes are a good example of how quickly my mind, body and equipment all need to change. Clothing isn't nearly the same consideration at the equator as it is in the Arctic or Yellow-

stone, and most everything I could mention regarding clothing would fall under the heading of common sense. That being the case, let's look at the challenges while shooting in a more temperate climate.

My favorite case for shooting in a vehicle situation in Africa is the Lowepro Pro Roller 2. It's easy on the body when moving through airports and works well inside a Land Rover or similar vehicle. Its real benefit is the ability to put a fairly large lens, such as a 200-400mm with a body attached, inside the case and be able to close it to keep out dust and debris.

A good friend and talented photographer, Charley Summers, has spent many years shooting in the arid conditions of South Africa. Charley introduced me to a little trick many years ago. Before going out each day, he soaks a towel in water and wrings it out to avoid any dripping liquid. He then places the towel over his 600mm lens and body lying on the seat

next to him. The moist towel keeps dust off the equipment for the morning.

Shooting from a vehicle can be a challenge. I find the fastest and most steady option is a good beanbag. You can make them at home, but a quality option is the Kinesis SafariSack.

In all climates, dust or other debris on the digital sensor is a serious issue. I use a small paintbrush, the same one I mentioned for removing snow, but in Africa it's used to remove exterior dust. For the camera's interior, I prefer the VisibleDust sensor brush combined with canned air. Getting canned air on to airplanes today is nearly impossible, however, so I also use a large hand blower made by Giottos, the Rocket Blaster. And VisibleDust has a device called the Arctic Butterfly, which spins the brush, creating a similar charge to the bristles like you get from using canned air.

Wrap-Up

Photographing in one extreme to the other can be a challenge, but with planning and preparation, it can be fruitful and exhilarating. Dress properly, keep your gear clean, and don't hesitate to get back in the field, be it warm or cold. OP

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