

## **The Art of Photographing Birds by Clive Bryson**

**INTRODUCTION:** I have always enjoyed looking at images of birds. My passion however has always been photography but just lately I have combined the two interests and have begun to photograph birds in my local Shuswap area of the BC interior. I quickly learned that taking pictures of birds especially in flight is a very challenging task and that there are many techniques that need to be employed for a successful capture. In this article, I will endeavor to share the techniques I have learned, but firstly I should talk about equipment since its choice is critical.

**CAMERAS:** Let's talk about cameras. While many of the newer point & shoot "super zooms" are an excellent choice for static bird photography, they are less than ideal for capturing birds in flight. This class of camera simply does not respond fast enough because the delay time between when you press the shutter button and the time the image is actually recorded on the card is simply too long and often results in images of your bird half out of the frame or not even in the frame. Before I get emails claiming it is possible, let me add a caveat. Some photographers have been successful with this type of camera, simply by predicting and aiming the camera at the position where the bird might be at the point the image is recorded to the card. I strongly recommend using a DSLR type camera whose lag or delay time is virtually zero. I'm not going to recommend any particular camera brand as they are all good nowadays. Both Canon & Nikon as well as Pentax have excellent cameras that are more than up to the task of bird flight photography. I personally use Olympus cameras. If you don't already own a DSLR & are planning on purchasing one, I recommend that you do the research before you buy.

**LENSES:** Lenses are the eye of the camera and are not all created equal. The maxim "you get what you pay for" often holds true and one should research carefully before committing to buy. If you have the resources to buy the best right now, it's probably better than the "upgrade later" route which will result in inferior images and dissatisfaction until you finally upgrade. For most bird photography you will be using a telephoto lens, either zoom or prime (fixed focal length). Talk of focal lengths leads to much confusion in the world of digital photography since different sensors from different manufactures have different magnification factors unless you happen to have a camera with a full frame sensor, in which case the magnification ratio is 1x. This means your 200mm digital lens is the same as a 200mm film lens. In my case, the 4/3 Olympus sensor has a 2x magnification factor, so my 12-60mm zoom is the same as a 24-120mm film lens. Better then to talk about focal lengths in film terms so you can translate it back to a focal length for your chosen system. So what do you need? I use a zoom lens that effectively gives me 100-400mm and has a speed of f2.8-3.5. I would suggest you need a lens in this range or better. A less powerful lens will result in the need for cropping and the attendant loss of sharpness. It's always a plus if you can buy a faster lens, say an f2 but you will pay a weight and price penalty.

**MEMORY CARDS:** Unlike lenses, bigger is not necessarily better. What I mean is bigger capacity carries risks associated with that capacity. I don't use a card bigger than 8GB and mostly use 4GB, simply because if that card becomes corrupted or you loose it somewhere, you only have lost half or a quarter as many images as a 16GB card would

hold; not to mention the cost of the card. Pertaining to your ability to capture images of birds in flight in rapid sequence at say 5 frames per second, a more critical component of the card is its transfer rate—the faster the better. Assuming your camera to be compatible, I suggest you use a CF card with a transfer rate of at least 30mbs/s which is a 200x or better still 45mbs/s which is 300x.

**CAMERA SUPPORT:** For me I find having to setup and adjust a tripod and ball head is simply too time consuming and robs me of the freedom and speed of hand held shots. In fact I would argue that given the settings that I will recommend later in this article, that a tripod is unnecessary. I do believe however that under certain circumstances, a monopod can be an asset. Having said that, I think it is true to say that better than 75% of my birds in flight images are shot hand held. Remember that speed is of the essence in bird photography and quick reflexes are a definite asset. If you are going to be doing any static bird photography in low light, a monopod can be of benefit or even a “window pod” for those occasions when you shoot from inside your car.

**FLASH:** Flash can definitely add a new dimension to your bird photography, especially if you use a powerful flash and some kind of light focusing device (snoot) that can be attached to your flash. The ability of the flash to freeze motion independent of the shutter speed has great potential and can introduce a “ghostly” quality due to the secondary image. This technique can imply motion and results in a more artistic rendition to in flight images of birds or any other moving creatures.

**BATTERIES:** Don't go cheap by buying no name or off brand batteries as you will regret it. If you have a Nikon, buy genuine Nikon batteries and if you have a Canon, buy genuine Canon batteries. They will last longer in the camera, give you more charging cycles and will be reliable. For in flight photography of birds where focus speed is critical, make sure your battery is fully charged—it makes a difference. Better yet, buy a vertical grip that will take two batteries which will make your autofocus even faster.

**SETTINGS:** Proper settings are crucial. The following are my recommendations that work for me. I'm not saying they are cast in stone so you should experiment with your own ideas & theories.

- 1) **SHUTTER SPEED:** The prime setting for freezing motion which should generally be around 1/1000 s for birds in flight and much less for static shots or slow moving birds. If you want wing tip blur you should decrease shutter speed—experiment.
- 2) **APERTURE:** Aperture should be large (small f #) to minimize depth of field and so reduce distracting background clutter. Generally around f2.8-5.6.
- 3) **ISO:** Float your ISO to achieve the shutter & f stop parameters, but remember the higher the ISO, the more the digital noise. Ideally, use the native ISO (light permitting) for the very best noise free image. The native ISO of most digital SLR's is 100. ISO's above 800 can introduce some digital noise which is not always objectionable.
- 4) **AUTOFOCUS:** Autofocus should be set to single point continuous in the centre of the frame. If the lens you are using does not have a focus limiter, it is a good idea to set your camera to CAF+Manual so you can initially manually focus to get in range and then let the CAF take over.

- 5) **EXPOSURE:** Exposure metering is tricky because usually the background dominates the image and changes as you pan. Generally, I use spot metering as this tends to give you an accurate exposure so long as you are on target. Unlike film, it is better to err on the side of overexposure. The reason for this is if you adjust the exposure (make it darker) in post processing, you will not increase digital noise, conversely if you brighten an under exposed image, you will increase digital noise. Shooting RAW is better for post processing exposure adjustment but RAW files take a little longer to process in camera. So if you are looking for the absolute fastest way to shoot, shoot JPEG.
- 6) **IMAGE STABILIZATION (IS):** IS or VR is a mixed blessing, sometimes it helps, and sometimes it doesn't. Look at it this way, the purposes of IS is to make your camera think it's on a tripod. The IS system whether it be in camera or in lens will apply micro counter actions to compensate for unintended camera movement. You twitch up, it twitches down. You twitch to the right, it twitches to the left. So if you are panning, it thinks you are twitching and will attempt to apply a counter action which will result in blur. The only time you can use this to your advantage is if your camera allows you to turn the IS y axis off, assuming the bird to be flying horizontally. What this does is to image stabilize any unintentional twitches in the vertical direction but blocks any attempted IS in the horizontal direction that would result in softness. Generally though, I turn the IS off as it is off limited benefit when you are using shutter speeds of around 1/1000 s.
- 7) **FRAME RATE:** Recently I photographed a mallard that was beating its wings to dry them off after emerging from underwater. This is a rapid beat and I wanted to be sure to get the wings at maximum spread, so I set my camera to its highest frame rate which is 5 fps. I fired off about 5 frames, one of which gave me what I wanted-wings spread out. So always have your camera set to its highest frame rate as you never know what a bird might do in a split second.
- 8) **FOLLOW THROUGH:** Not really a setting, but a technique; it is important to follow through when you are panning with any moving object. Don't stop panning the instant you have fired the last shot, but follow through.

**ABOUT THE BIRDS:** Bird photography is not all about photography, but in part about the natural history of birds. I have learnt a lot about bird identification & bird behavior. You need to be able to identify the species, sub species and gender of the birds. Secondly, learn about the behavior of that bird you have identified. When does it arrive and depart from your area? What does it feed on? How does it fly? What kind of trees does it like to roost in? How & when does it mate? Who are its predators? How do the colors change? You might want to investigate the use of small camouflaged bird blind so you can freely photograph your subjects without disturbing them.

**AESTHETIC ISSUES:** You can get the best equipment possible, and apply all the optimum settings, and still finish up with a boring image. Why is that? Simple; you not only have to be a technician, but also a bit of an artist. This applies to taking the picture and the post processing with such tools as cropping and contrast adjustment. Let's go back to our mallard duck as an example. The male of this species has

wonderful colorful plumage with unbelievable iridescence. But as it sits in the water, it's still just a mallard duck. So what can you do to make it interesting? Capture it as it surfaces with the water rolling off its back. Capture it as it flaps its wings to shed the water. Capture it as it takes flight or lands on the water. All birds have unique behaviors that are worth capturing. The osprey clutching a fish approaching its nest, the swallow as it skims over the water after flying insects, the grebe as it glides over the lake surface surrounded by the reflections of spring foliage, the heron as it majestically flies over the lake surface, the gulls as they gang together.

**SOME READING MATERIAL:** Read your camera manual & a good bird identification book. I recommend Sibley's field guides as well as his book "Guide to Bird Life & Behavior". If you really want to see a feast of images, buy or borrow "On Feathered Wings-Birds in Flight" by Richard Ettlinger. There is not a lot of "how to" information in this book but there are sure are lot of fantastic images.

**A NOTE FOR FILM USERS:** Much of the preceding information applies to film cameras which I know still has a strong following, and with good reason. The benefits of digital are numerous apart from the instant gratification factor; the ability to change ISO on the fly is the strongest advantage and is key in bird photography. Film still produces a sharper image and can yield amazing enlargements before the image breaks down. It is only a question of time though before digital equals or even surpasses those wonderful qualities of film.

**QUESTIONS:** This subject is simply too big to cover in a short article like this so I'm willing to answer questions or hear your tips that you have developed from your own experience. My email address is [cbryson@telus.net](mailto:cbryson@telus.net) . Have fun.

[For the article with photos see the Spring 2010 issue of Canadian Camera Magazine, pgs. 8-11.](#)