

## Wildlife Photo tips (Updated October 2022)

- 1. Try to photograph in the early mornings or late afternoon when the light will usually be softer and the shadows less harsh.
- 2. A 300 mm telephoto lens or a 100 400 mm zoom (with a full frame camera) are usually the shortest lenses for this type of photography. However, a longer lens will help or possibly adding a 1.4x or 2.0 x Teleconverter to the lens if the lens will take it, but these do reduce the light transmission by 1 stop and 2 stops respectively. Some older lenses / systems don't work that well with the 2.0x Teleconverter and they can lose or have soft focus issues. The 1.4x usually works well. Often lenses of 500 mm or 600 mm are used and even then, are used with a 1.4x Teleconverter. The shorter the lens you use means you have to get even closer to the subject.
- 3. Crop factor; This is the size compared to a full frame (35mm) sensor. With APS-C cameras which has a smaller sensor than full frame cameras there is a crop factor of 1.5x (Nikon and Sony) or 1.6x (Canon) and with micro 4/3rds cameras with an even smaller sensor its 2x. So for a Nikon APS-C camera, if you take a 24mm wide-angle lens and multiply it by the crop factor number of 1.5, the result is 36mm. This basically means that the 24mm lens on the crop sensor Nikon APS-C DX camera would behave more like a 36mm lens on a full-frame camera in terms of field of view. In essence, if you mounted a 24mm lens on this crop sensor camera, then mounted a 36mm lens on a full-frame camera, put them side by side and took pictures of the same subject at the same distance, both would yield a very similar field of view. In wildlife situations with a Sony or Nikon APS-C camera a 300 mm lens would give an equivalent field of view of 450mm lens on a full frame camera and with a canon APS-C camera give an equivalent field of view of a 480mm. This means when purchasing lenses for APS-C cameras you can reduce the lens length by 1.5 or 1.6 and with a micro 4/3rds by 2, which is why you don't see any 600 mm APS-C or micro 4/3rds for sale. Looking at it the other way round a 600 mm full frame lens on a full frame camera would be approximately equivalent to using a 400 mm / 375 mm lens on an APS-C camera and a 300 mm lens on a micro 4/3rds camera.
- 4. Sadly, this is where things can get confusing for many photographers. The focal length of a lens is the physical property of a lens, and it never changes irrespective of the camera sensor. So, always keep in mind that the smaller sensor is not magically transforming your lens into a longer lens it is just cropping a lot of the image that a full frame camera would see.
- 5. The crop factor also has other effects, as changing focal length or camera to subject distance can have a drastic effect on perspective, depth of field and background blur. Basically, the depth of field is impacted to the same crop factors and light transmission through the lens can be affected.
- 6. If using a teleconverter its always worth trying one stop higher, if the light allows, to get just a bit more depth of field, as the longer the lens the shorter the depth of field, so this can help get a sharper image.

- 7. Get as close to the subject as you reasonably can. Even if you have a long lens, you still need to get close. It's a fallacy that you can get good images from distance even with a long lens. To achieve reasonable results the subject needs to fill approx. 15% of the frame when taking the photo and for top quality results its about 20 25% of the frame. Have a look at the Professional photographers listed for examples of some great images. Cropping an image too much in post processing will simply reduce the quality.
- 8. Its always worth taking photos in a short burst (5 shots is good) as often one photo will be sharper than the rest. Not sure why this happens but it seems to, so increase your odds by taking a short burst.
- 9. You can also take what are called landscape or habitat wildlife photos with 16 mm wide angle or standard 50 100 mm lenses, where the animal or bird is just part of a wider scene but for this type of photography the Landscape Photography tips are possibly more suited. Check out Frans Lanting's images for examples as he does quite a bit of this type of photography, and they are fantastic. Ben Hall, who gave a talk to the club in 2021, also takes this type of image as well as close-up wildlife photography and again they are fantastic.
- 10. For both types look for interesting compositions.
- 11. Try to be at eye level with the subject or even slightly below. Looking down on a subject is to be avoided if at all possible. Having a small folding walk stool is useful if lying down is not possible for any reason.
- 12. Some tripods don't have a centre column to allow them to get as low as possible, and some go virtually flat. If yours doesn't have this feature, use a bean bag or even your camera bag to support your camera and lens.
- 13. Check out the background and move around, if necessary, to achieve this. Its so important to have complimentary backgrounds that don't compete with or distract attention away from the subject.
- 14. Less cluttered backgrounds tend to work best. Look out for very bright or dark patches as these will stand out more in the photo.
- 15. If possible, have a reasonable distance behind the subject if you want the background to be blurred.
- 16. The light can make a major difference to the image. For example, do you want your subject front lit, side lit or back lit. If possible, move around to select the light direction you require. Front lit is the more normal so have the light coming over your shoulder with your shadow pointing towards the subject but side light and back lighting can provide a very different and interesting look so experiment with different situations. This will affect the background as well so watch for this as well as the impact on the subject.
- 17. Use a bean bag, tripod or monopod, if possible, to reduce camera movement. If this is not possible increase the shutter speed and make sure image stabilisation is on.
- 18. Some cameras require / suggest the image stabilisation to be off when using a support such as a tripod. Try it on and off to see how your camera performs best.
- 19. Once you have found the location and a good complementary background wait for the subject, if possible, rather than chasing the subject around.
- 20. Try to capture the subject doing something interesting / different if possible.
- 21. Leave space on the side the subject is facing so it has room to move into and it's not too cramped within the image.

- 22. Carry out "border patrol", which is to check for items sticking out of the edges of the frame or possibly just too close to the edge.
- 23. Select the correct shutter speed appropriate for the subject's movement.

  From 1/250 sec for larger static subjects such as deer to 1/3200 sec for fast moving birds in flight. Small birds and small mammals have rapid head movements so require faster shutter speeds even when still / perched.
- 24. Select the correct exposure to provide the correct depth of field required.

  Usually between f4 f8 depending on subject and background distance. Watch the depth of field as long lenses compress the image and have very shallow depth of field, which at range for large subjects can mean parts of the subject will be out of focus.
- 25. If using Manual on the camera, use auto ISO if possible, to automatically adjust ISO A range between 100 and 6400 is ok but the higher figure can introduce noise so be careful here. This can help if you are following a bird flying across the sky, then some trees, back to the sky, etc as the light will be changing to fast to manually adjust.
- 26. Check that the exposure / ISO doesn't go out of the set range (it should flash to make you aware of this) and if so, adjust shutter speed or aperture to stay within the set range otherwise you will be adjusting exposure in post processing and sometimes this won't be possible.
- 27. Use the histogram or zebras to check there are no areas in the image that is too bright. Be particularly careful about white birds as they can easily have blown out highlights thus losing detail.
- 28. Consequently, be careful about dark coloured birds against a bright sky as the opposite can happen and the bird will be too dark.
- 29. Use the exposure compensation dial if your camera has one, to adjust exposure up or down as required. Its negative for white birds and positive for dark birds, the amount will obviously depend on the conditions.
- 30. Select the focus on your camera to continuous focus rather than single focus (i.e. AF-C not AF-s). This means your camera will keep focusing as the subject moves when using burst shooting rather than focusing for the first shot only.
- 31. Select the appropriate focus type on the camera, usually this will be centre or an expandable flexible spot for still / perched subjects. It needs to be reasonably small, so the focus is exact. Try to focus on the subject's eye if possible.
- 32. For birds in flight "wide" or "zone" is usually best to pick out birds against the sky. If your camera has "Tracking focus" then use this.
- 33. Learn to use "Back button" focusing as this can help in some situations. For example, if a perched bird is having a branch or leaves moving across it in the wind, having acquired the focus on the bird with back button focus you can leave it there and it will ignore the branch or leaves rather than keep retrying to focus with every press of the shutter button and sometime therefore trying to focus on the branch or leaves instead of the subject.
- 34. It's important to check your focus by playing back images so you can retake if the focus is off.

  There is nothing worse than getting home and finding that fantastic shot is out of focus.

| Art Morris;         |
|---------------------|
| Frans Lanting;      |
| Art Wolfe;          |
| Tom Mangelson;      |
| Ben Hall;           |
| Will Burrard-Lucas; |
| Tom Mason;          |
| Neil McIntyre;      |
| Luke Massey;        |
| Paul Fowlie;        |
| Mark Smith;         |
| Guy Edwards;        |
| Colin Edwards       |