The Basics of Nature Photography

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Equipment

Cameras

In selecting a camera, first define what you want to do with it. Nature is a broad genre and different subjects may require different equipment. Some categories to consider are macro / close-ups, scenics, wildlife, and birds. Fixed-lens (point and shoot) cameras can be used for the first two but are generally not well suited for wildlife and birds, and will have limitations for any subject that you may find frustrating as you progress.

A DSLR (digital single lens reflex) camera with interchangeable lenses will give you versatility and the ability to grow and upgrade over time. The instant feedback provided by digital as opposed to film will vastly accelerate your learning curve.

Tripods

A sturdy tripod is a necessity for the serious nature photographer. For macro and scenic work, you need the stability for fine-tuning compositions, as well as for long exposure times. For wildlife and birds, you need the support for the weight and size of the lens to achieve the sharpest images. Look for a tripod that is capable of going low to the ground, i.e., that has no (or short) center column and no supports between legs that limit this ability. Ball heads are generally preferred for shorter lenses and gimbaltype mounts, such as the Wimberley head, are generally preferred for super-telephotos.

From the hand

There are times for handholding, such as when shooting from a motorized boat to avoid transferring the engine vibration to the camera, or for flight shots of birds. For handholding, a general rule of thumb is to keep shutter speed faster than 1/lens length. For example, with a 200mm lens, shoot faster than 1/200 second. With vibration reduction (VR) / image stabilization (IS) technology you can go a couple stops slower than this.

To achieve best sharpness, support the lens with your left hand under the barrel, tuck in your elbows, hold your breath and squeeze the shutter gently using the muscles in your finger and not those in your arms or shoulders.

Flash

The need for flash, and type of flash, depends on your choice of subject. It is not commonly used for scenic photography or many wildlife subjects. Most bird photographers carry a flash along with a "Better Beamer" Flash Extender to increase the reach of the flash. For macro work, there are specialty flashes and flash brackets that are used to get light into very small, close objects.

The pop-up flashes found on some cameras are not particularly useful for most nature photos.

You take the photo, not the camera

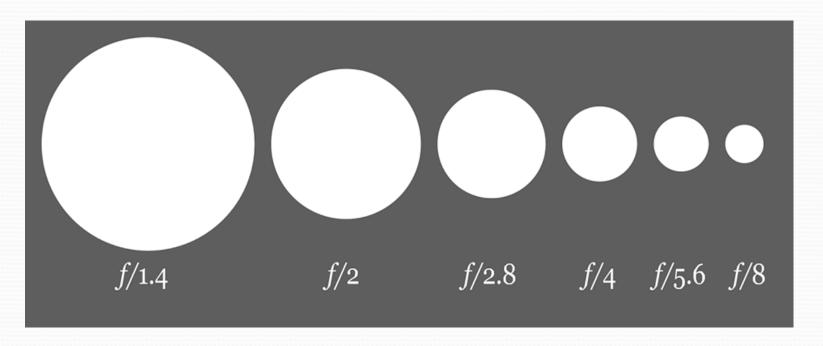
Exposure: correct exposure

Achieving correct exposure is fundamental to making good photos.

The camera's meter assumes the scene is middle-toned, not light or dark, and will give correct exposure for mid-tone. But nature is full of subjects that are not middle-tone, such as sunrises and sunsets, white objects in snow, black birds on snow, white birds on dark bg.

You must learn to identify these situations and how to compensate from what the meter indicates for settings. Compensation is done differently depending on what you are metering

- Shutter speed (exposure time) and F-stop (aperture)
- Shutter speed is how long the shutter is open, and varying this controls the amount of motion blur of a moving subject.
- F-stop controls the depth of field, or how much of the image front to back is in focus. These are critical in all nature photography; you will want to make these choices consciously in your image. Make sure you know how to operate these controls on your camera.



The size of the circle represents the size of the lens aperture – the larger the f-number, the smaller the aperture.

Light

- Light is another element that has important effect on the outcome and artistry of an image. The type of light and color of light are important factors in your image.
- Light can come from a point source such as the sun or a flash. This type of light has direction and casts shadows. The direction has a huge impact on your photo.
- When the light comes over your shoulder and directly illuminates the subject, it is called front lighting. This type of light renders the most detail in your subject and is commonly used for birds and wildlife.
- Light coming slightly from the side adds depth, dimension and texture and can be very effective for landscapes or to create a mood in the image.

- Backlighting is the trickiest to deal with in terms of exposure but creates drama and mood and can give very artistic results.
- Light is constantly changing throughout the day, and can even change minute to minute in conditions where storms are a factor. You can greatly enhance your pictures by paying attention to the light and how it is (or isn't) changing.
- The time of day also matters. In midday, cloudless conditions, the light is bright and harsh. There are few shadows. Pictures taken at this time of day tend to look flat and lifeless.
- Early or late in the day, when the sun is lower in the sky, more of the blue color is scattered by the Earth's atmosphere and what comes through is more orange / reddish, or "warmer." Between this warmth in the light and the dramatic shadows you get this time of day, photographers refer to these times as "magic hours."

Many landscape and nature photographers organize their day so that they are taking pictures early and late, and midday they nap, travel, or scout new locations. It may be a little extra effort to get up and get out early, but it can be well worth it. This has benefits if you like to photograph in popular parks or tourist locations, as these times will be much less crowded than midday!

Diffused light, such as that on an overcast day or in open shade, casts no (or minimal) shadows and so has no apparent direction. This type of light is ideal for a situation where you want detail, as nothing is obscured in shadow. Close ups of flowers, leaves and other objects, as well as waterfalls, forest and fall color scenes are a few examples where diffuse light works well.

Composition is VERY important!

Composition is the purposeful arrangement of the elements of a photo. Although it is highly subjective, there are some basic rules of composition that should be learned. These are tried and true methods (some are centuries old painting rules) that will give good results. Once you understand these rules, intentionally breaking them can give dramatic results.

For nature photos, here are some additional considerations for composition.

Focus on the eyes. If your subject has eyes, the viewer will be drawn to the eyes as a center of interest of the image. As such, the eyes should be in crisp focus, even if other parts of the subject are not due to depth of field or motion.

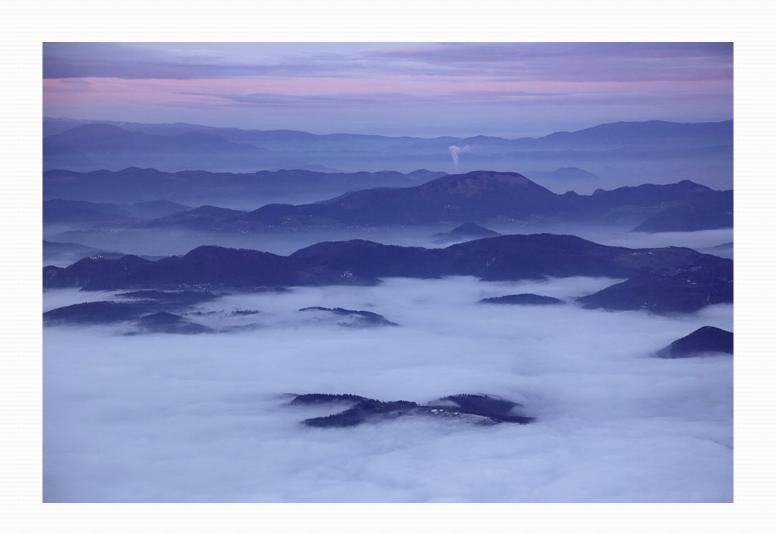
Give room for the subject to "move into." If your subject is moving, and you place it near the edge of the frame in the direction it is moving, the viewer's eyes are taken right out of the image. Leave space in front of the subject, not as much behind it. Similarly, with a static subject, leave space in the direction the subject is looking, rather than having it looking out of the frame.

Pay attention to the background.

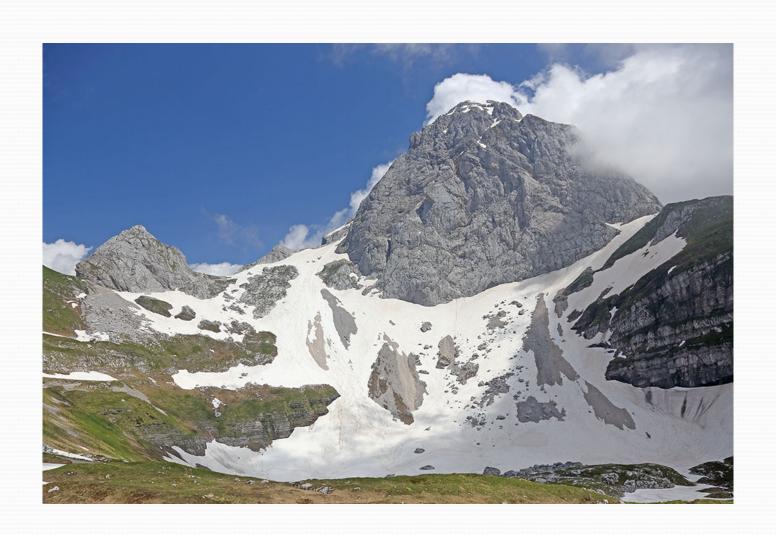
Avoid white spots. The eye is naturally drawn to the brightest area of an image. If that is not your subject, the eye will be drawn away from the subject to that bright spot. Look for white or bright objects in the background and try to eliminate them by changing your point of view.

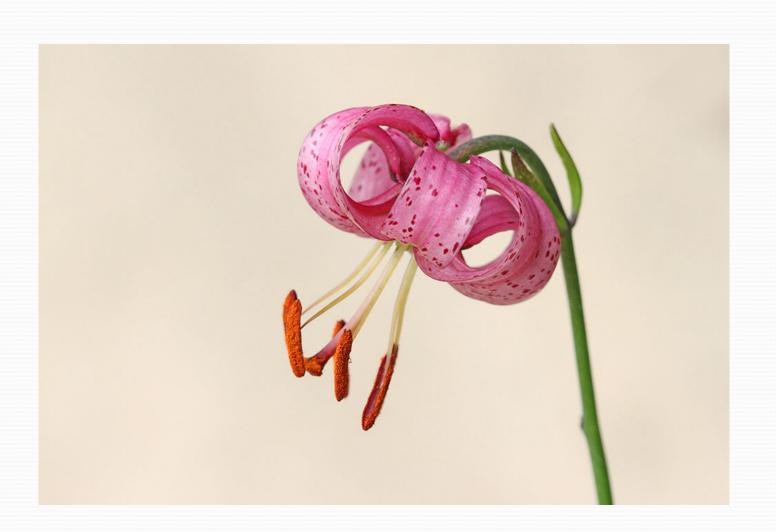
Avoid horizons cutting through the subject. When there is an abrupt color transition or horizon line, try to place the subject entirely above or below that line or eliminate the line all together by raising or lowering the camera.

- Don't clip the edges of your subject. If you're going to crop in on the subject, crop in far enough so that it is intentional, don't just leave the tip of a leaf or wing out of the frame. If your subject is standing in something where the feet are hidden, include enough space at the bottom to include the "virtual feet."
- Shoot at your subject's level. This is particularly true for animals or birds, and will achieve a more intimate feeling than shooting down or up at the subject. It may mean getting down on your belly or up on a hillside. Of course the inverse of this can also be used! Dramatic angles, subjects photographed at a different perspective than normally viewed, can be extremely effective.
- Watch for unwanted objects in the background creating a merge with the subject. An example might be a tree that appears to be "growing" out of the subject's head. Try moving slightly, or waiting for the subject to move, to eliminate the merge.



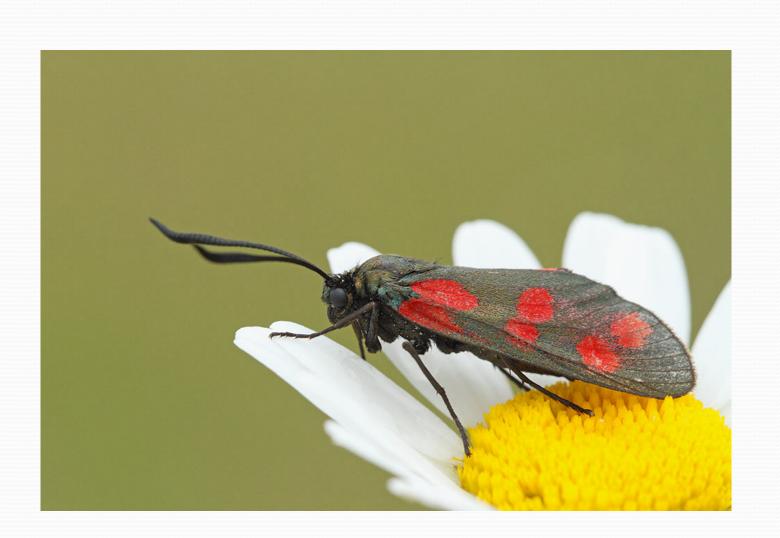




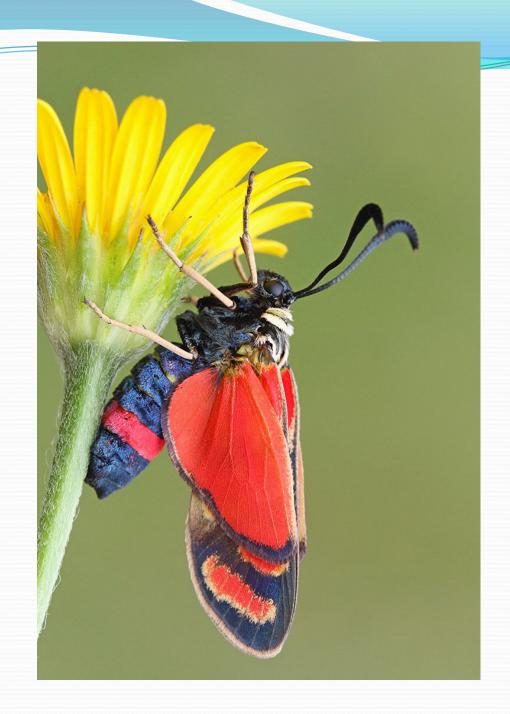






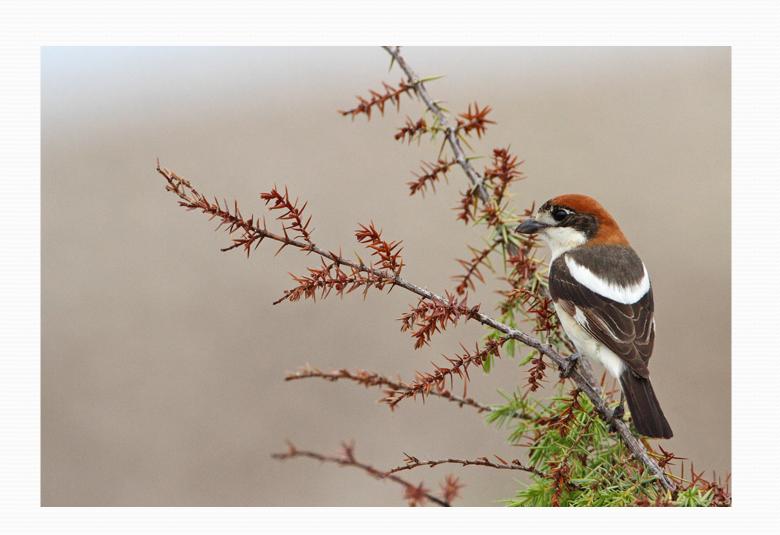












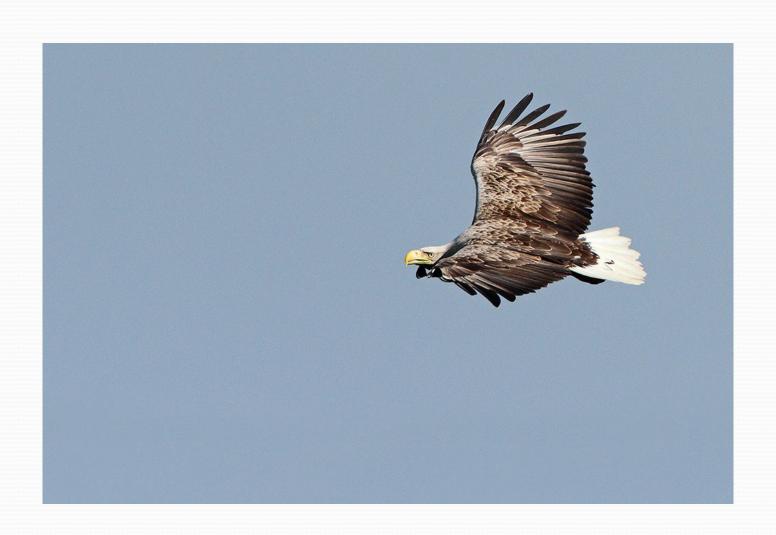




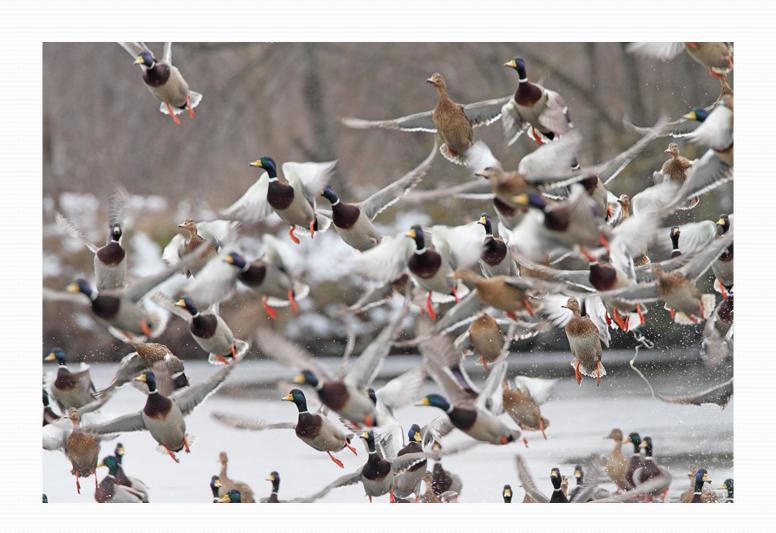












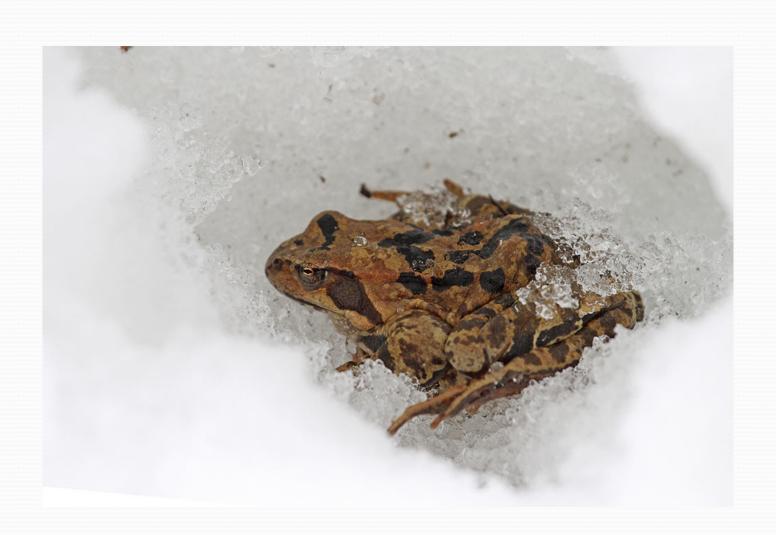












Thank you!

