

## Photo tips for Nature Photographers

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Photography is the art of capturing a moment in time. Doing so permits the photographer to share that image and memory with others. That is the joy and pleasure of photography.

A photograph is simply a collection of reflected light that has been caught; much as a baseball catcher's mitt stops the pitcher's fast ball. The camera is actually a "catcher's mitt" for light. Similarly, it is just as blind, and inert, as the catcher's mitt and must be properly manipulated to catch sufficient to produce a photograph.

There are two distinct types of photographic images; Snap Shots and Photographs.

Snap Shots are simply the result pushing a camera's shutter release. Little planning is involved in the taking of a snap shot.

Photographs are the result of visualizing the final image, planning and composing the image and selecting the proper camera settings to render the subject in the most eye-pleasing manner.

Good quality photography requires an artistic eye for composition, an ability to see and understand the quality of light and a working knowledge of camera functions.

Only two camera functions/settings are used to capture images; no matter what the subject: **aperture** and **shutter speed**.

**Aperture** is the size of the lens opening that regulates the amount of light entering the camera. Aperture settings are called "F-stops."

**Shutter speed** is the time duration that the light, is permitted to strike the camera's digital sensor or film.

When the shutter release button is pushed, a combination of the two creates an "**Exposure.**"

Incorrect settings of either mayl create an image that is Over-exposed i.e. much too bright or Under-exposed; much too dark.

These settings also affect the overall range or depth of sharp focus within the image as well as the overall sharpness.

Aperture settings (F-stops) are listed in numerical values such as F-2.8, F-8, f-16, F-22. etc. The larger the F-stop number; the smaller the aperture and the greater the depth of focus in the image and vice versa. This dynamic is referred to as "Depth-of-Field."

An easy way to remember this is that on bright sunny days, our eye pupils constrict to small pin-hole-like openings and we can see for miles and miles. This is similar to F-22. In dim-light conditions our eye pupils dilate to admit more light, but our area of sharp focus is very shallow, similar to F-2.8.

Therefore: Dim-light conditions require wider, or more open apertures, such as F2.8, F3.5, F4. Bright light conditions require small apertures such as F11, F16, F22.

Similarly, shutter speeds must be adjusted to suit varying light conditions; Fast shutter speeds such as 500/sec or greater are needed to capture images in bright light, also known as “Fast Light”.

Dim light is known photographically as Slow Light and requires slow shutter speeds such as 60/sec. or less. This means that the shutter is open and admitting light to the sensor/film for 1/60<sup>th</sup> of a second.

Most simple “*point-n-shoot*” cameras compute and adjust these settings automatically and will produce good images in ample lighting situations, but wildlife photographers contend with widely varying light and shadow conditions and moving subjects. They also must deal with uneven terrain, brush, briars, insects and water as well as wind, snow and rain. More specialized gear is required to deal with these complicating factors.

NOTE: Wildlife is generally more active at dusk and dawn when low-light conditions complicate photographic success. Coincidentally, the very best, most flattering and rich light conditions also occur early and late in the day. In such light, colors are more saturated and subject detail is enhanced.

Camera movement and subject movement also greatly affect image quality. We cannot control the movement of wildlife subjects, but we can adjust shutter speeds to slow or stop subject motion. Fast subject action requires fast shutter speeds and vice versa. 125/sec will stop a walking deer, but not a running deer. That may require a shutter speed setting of 250/sec or greater.

Controlling camera movement is vital to good wildlife photography and that is within our power, using various techniques and devices. Camera movement at the moment the shutter is released will produce a blurred image, much as a moving catcher’s mitt will fail to catch the fast ball.

Camera movement control is especially critical at slower shutter speeds. Dim or slow light demands long shutter opening durations (slow shutter speeds) for sufficient light to impact the sensor/film and create an image. Slow speed shooting requires additional camera support in the form of a tripod, monopod, bipod or bean bag. One can also rest the camera on natural objects such as a tree or boulder much as a hunter may lie prone and rest his rifle on a day pack for an accurate shot.

Image-spoiling camera movement occurs most commonly when the shutter release button is pushed too quickly or forcefully. Photographers must push the shutter release with precise care similar to the ultra-soft and steady trigger squeeze of a rifle marksman.

Concentration on steadiness is vital to capturing sharp images when hand holding cameras because natural movements of the human body, such as heartbeat and breathing impart movement. Similar to rifle sharpshooters the procedure of taking a deep breath, exhaling partially and holding that breath as the shutter is tripped is helpful to photographers.

Specialized devices such as remote cords, infrared or wireless camera triggering devices eliminate human movements from the camera. These devices require the camera to be supported by a tripod or similar stand-alone camera support.

Photographers can also use the time-delay shutter release option to fire the camera in a hands free situation. Simply pre-focus and secure the camera prior to pushing the shutter release. Several seconds later the camera will fire. Delay times are adjustable on most cameras.

## ~ Dealing with Light ~

Nature and wildlife photographers commonly shoot in natural, light that varies greatly with time of day and the angle of the light striking the subject.

Side light: Light passing across a subject from the side imparts greater detail due to the shadows created by even the smallest amount of relief in subject texture.

Direct light: Light emanating from directly behind the photographer imparts flatness to the subject.

Back light: Light striking the subject from the back, or directly opposite the camera, imparts a halo of rim light to the subject and can result in unintended silhouetting. Back light often causes image-destroying flares of brightness on the lens's glass surface.

Overhead light: Light from directly overhead of the subject imparts heavy, dark shadows.

Flash: Artificial light can pump fill-light into shadows, but it is very easily over done. The use of flash is an expert's skill area.

Reflected light: The use of reflective surfaces to bounce natural light onto a subject can fill shadows and illuminate hidden detail. Commercial reflectors are available in various color values, such as white, silver and gold.

## ~ Understanding Camera Settings ~

Modern digital cameras are in actuality small computers. Using them to their best advantage requires familiarity with the camera and a reasonable comprehension of camera functions. This knowledge is gained by studying your camera's operation manual and doing so with the camera in hand. Factory supplied manuals can be technical and confusing, but more easily understood, liberally-illustrated guide books known as: *Magic Lantern Guides* are available for most camera models.

As stated earlier: Two camera settings combine to produce photographic images; Aperture and Shutter Speed and most modern digital cameras offer a menu of exposure options/modes.

“**A**” on the camera's selection dial indicates the “**Automatic**” mode. This selection renders the camera as a “point and shoot” unit with the camera making all settings decisions based on the available light. It may even elect to fire the on-camera flash. This is the poorest option for nature and wildlife photography.

**P** indicates the “**Program**” mode. It is similar to Automatic, but offers some adjustments options.

**A** indicates the “**Aperture**” priority mode that permits the photographer to select the lens opening setting while the camera selects a shutter speed suitable to the available light. *This is a good option for scenic photography; enabling the photographer to select an aperture to obtain the greatest depth of field.*

**S** indicates the “**Shutter**” priority mode. It permits the photographer to select the shutter speed while the camera selects an appropriate aperture based upon available light. *This is a good option for wildlife photography; enabling the photographer to select action-stopping shutter speed settings.*

**M** indicates the “**Manual**” mode. In the manual mode, the photographer selects the aperture and shutter speed. This option offers the most creative control of the camera. Using the digital camera’s LCD display, the photographer can easily check the results of their settings and readjust as needed for the desired effect.

### ~ Icons ~

Many camera control setting dials feature small icons to indicate camera modes. Selecting any of these icons, communicates to the camera’s internal computer that the person holding the camera wishes to take a type of photo as represented by the icon.

The **Running Man** icon indicates the desire to photograph action/sports.

The **Flower** icon indicates the desire to take a “macro” or a close-up photo.

The **Mountains** icon indicates the desire to take a scenery image.

The **Girl in a Hat** icon indicates the desire to take a portrait.

The **Person and Moon** icon indicates a nighttime or dim light situation that often activates the on-camera flash.

### ~ Composition ~

Cameras commonly generate images that are about 1/3 wider than they are tall when the camera is held and fired in its normal horizontal aspect. This is perfect for scenery and group photography, but perhaps not as flattering for a single human subject or perhaps a tree or flower. By simply turning the camera to the vertical position, the image aspect changes to 1/3 taller than wider. This simple procedure can add greater visual impact to photos.

### ~ Rule of Thirds ~

The human eye finds pleasure in images when the main point of interest is located in one third of the overall composition. This is easily visualized by drawing imaginary Tick-Tack-Doe lines across an image and placing the key point of interest on one of the lines intersections. With a little practice composing images in this pleasing manner becomes automatic.

### ~ Groups of Three ~

We also find groups of three items especially interesting. An image of three roses is vastly more compelling than two, four or six. Although three seems to be the most eye-pleasing, odd numbers are generally more interesting than even numbered subjects.

## ~ Action and Interaction ~

Action adds interest to images of living things. Animals or humans in action are far more interesting subjects than static portraits. A running deer is so much more interesting than a standing deer, but capturing action requires deft use of shutter speed settings.

Interaction between animals, or people, adds even more interest to photographic images. Compare two birds sitting on a tree limb to a mother bird feeding a chick on that same tree limb. A doe deer sniffing its fawn's ear is compelling, but the pair simply looking at the camera is boring in comparison.

An important key to capturing wildlife actions and interactions is a working knowledge of their natural history and habits. Such familiarity can help anticipate eminent action and great photo opportunities.

## ~ Action Composition ~

Photographic subjects, in action, require space within the photo frame into which that action can continue. That is; a running deer needs space in front of it so that it does not appear to be bumping into the side of the image. The same is true with birds in flight and the space into which the action can continue must be provided in the direction of the action. If the bird is rising, that space must be above, if diving or landing it must be below the subject.

This is similar to shooting moving targets with a shotgun. The shooter must lead the speeding clay bird with space ahead of it to permit time for the shot charge to meet the target properly. This same sight picture is vital to action photography success.

## ~ Camera to Subject Angle ~

The most flattering camera angle to living subjects, from people and pets to wildlife and flowers, is on the same plane with the subject. Photographing a puppy at your feet while you are standing renders the loveable pet as a doormat, without legs. A photo of a duck on water is most impressive and realistic, if shot from the water's surface. Simply kneeling down to photograph a child or a pet imparts great interest to an image.

Getting down to ground level is also especially flattering to wildlife and wild flowers. A set of carpenter's knee pads is superb for protecting knees from dampness, stones, briars etc. The use of a monopod or other camera support aids image quality and provides physical support while kneeling or rising.

## ~ Eyes ~

The eyes of people, birds, animals, snakes, amphibians, and insects are the key point of focus and interest in photographic images. The eyes are more than the poetic “windows of the soul,” they are certain indicators of life and vibrant communicators of attitude etc. In all photographs of living things, no matter the aspect of the animal to camera, the eyes must be rendered in sharp focus and with a highlight or catch light on their surface.

Always, always, always focus on the eyes only and let the rest of the subject fall where it may in the focal plane. While doing so, watch for a catch light or highlight to flash on the eye’s surface that trip the camera’s shutter at time. Eyes rendered without these all-important life-indicating features appear dark and dead.

When photographing posed human subjects, have them focus upon a spot just to the side of the camera (not directly into the lens) to avoid the “Wanted Poster” look.

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