

WILDLIFE PHOTOGRAPHY

FOR BEGINNERS



Your Quick-Start Guide to Capturing Nature's Wonders

PAOLO SARTORI

www.paolosartoriphotography.com



Desert adapted elephants in the remote north-western Namibia.
Canon R3, 600mm, 1/2000s, f 4, ISO 200

© Paolo Sartori 2024

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior written permission of the publisher, except for brief quotations used in reviews or scholarly works.

The views expressed in this book are solely those of the author and do not necessarily reflect the views of any organization or entity.

Published by Paolo Sartori



A female leopard enjoying some lunch in South Luangwa NP, Zambia.
Canon R3, 600mm, 1/1000, f4, ISO 1250



A lonely guanaco in the vast lands of southern Patagonia, Chile.
Canon R3, 600mm, 1/640s, f4, ISO 200

Introduction

With the rapid development of camera technology over the past decades, there has never been a better time to be a wildlife photographer. Cameras today are faster, smarter, and more accessible than ever before. Advanced autofocus systems, impressive low-light capabilities and high frame rates—features once reserved for only the higher-end, professional equipment—are now standard in many consumer-level cameras. Even smartphones boast telephoto lenses and computational photography features that can produce stunning results. This democratization of technology means that anyone, regardless of budget or experience level, has the tools to capture breathtaking images of the natural world.

Yet, owning great gear is just the starting point. Wildlife photography is an art and a craft, combining technical know-how with creativity, patience, and an understanding of the natural world. Whether you're a complete beginner or an experienced professional, the pursuit of improvement is a constant in this field. Beginners might focus on mastering the basics of camera settings, while seasoned photographers seek to refine their storytelling, push creative boundaries, or deepen their knowledge of animal behavior. No matter where you are on this journey, the essence of wildlife photography is its capacity to challenge and inspire you to grow.

This eBook is designed to serve as a foundation, not a substitute for hands-on practice or immersive workshops.

There's something invaluable about being out in the field, guided by a mentor, or surrounded by peers who share your passion. However, not everyone has access to such opportunities, and that's where this guide comes in. It's your compact companion, offering essential insights into gear selection, camera settings, and techniques to help you elevate your wildlife photography. Think of it as a practical resource you can turn to whenever you need clarity or inspiration.

In today's world, photography holds a different kind of value. With the rise of AI-generated images, which can mimic reality with uncanny precision, a photograph is no longer solely about the end result. Its worth lies in the story behind it—the adventure, patience, and passion that went into creating it. Wildlife photography is not just about capturing a perfect shot of a bird mid-flight or a fox in the snow. It's about the experience of waking up before dawn, the quiet anticipation as you wait for an animal to appear, and the connection you feel with the natural world in those fleeting moments. These experiences can't be replicated by an algorithm.

This eBook invites you to embrace that process. Whether you're photographing the vibrant life in your local park or embarking on a journey to capture rare wildlife in remote locations, the goal is not perfection. It's about the joy of being present in nature and using your camera as a tool to preserve those moments. As you read through these pages, you'll find practical advice, tips, and encouragement to take with you into the field.

Your journey into wildlife photography begins here. With every image you capture, you're not just creating a picture –you're telling a story and preserving an experience. So, grab your camera, step outside, and start building your story today.



A young male lion at sunrise in Etosha NP, Namibia.
Canon R3, 600mm, 1/1600s, f4, ISO 500

1 - The Wildlife Photographer's Toolkit

Wildlife photography is one of the most demanding genres when it comes to gear. Unlike other forms of photography where subjects are stationary, predictable, or under controlled lighting, wildlife photographers often deal with fast action, distant subjects, and challenging low-light conditions. Adding to the complexity is the fact that animals rarely cooperate—posing for the perfect shot is simply not in their nature. As a result, choosing the right equipment becomes critical to achieving consistent, high-quality results.

Smartphones and Bridge Cameras

The advancements in smartphone and bridge camera technology over recent years have been nothing short of remarkable. Smartphones now feature computational photography, impressive zoom ranges, and excellent image quality in good lighting conditions, making them fantastic tools for casual photography or genres like landscape and street photography. Similarly, bridge cameras—compact cameras with superzoom lenses—offer versatility and convenience.

However, wildlife photography exposes their limitations:

- **Smartphones** struggle with the three pillars of wildlife photography: reach, speed, and low-light performance. The small sensors and limited optical zoom make it difficult to capture detailed images of distant subjects, while low-light scenarios often result in grainy, noisy images.
- **Bridge Cameras** fare slightly better due to their powerful zoom capabilities, but their small sensors and slower autofocus systems fall short when photographing fast-moving animals, especially in dim conditions.

While these tools can be fun for experimenting or casual outings, serious wildlife photographers benefit significantly from investing in more advanced systems like DSLRs or mirrorless cameras.

DSLRs vs. Mirrorless Cameras

For wildlife photography the choice between DSLRs and mirrorless cameras is a hot topic. Both have their strengths and weaknesses, and your decision will depend on your budget, preferences, and long-term goals.

DSLRs: Affordable and Reliable

Digital Single-Lens Reflex (DSLR) cameras have long been the go-to choice for wildlife photographers. They're rugged, dependable, and come with an extensive lineup of lenses and accessories.

Pros of DSLRs:

1. **Affordability:** With the recent years industry's shift to mirrorless systems, DSLR cameras and lenses have become much more affordable, especially in the used market. This makes them a great entry point for beginners or those on a tight budget.
2. **Durability:** DSLRs are built to withstand tough environments. Many models are weather-sealed and can handle rain, snow, and extreme temperatures, making them perfect for the outdoors.
3. **Optical Viewfinder:** An optical viewfinder shows you exactly what the lens sees in real-time, with no lag or electronic processing. This can be advantageous when tracking fast-moving wildlife.
4. **Lens Compatibility:** DSLRs benefit from decades of lens development. You can find a wide range of high-quality used lenses, often at a fraction of the cost of newer mirrorless equivalents.

Cons of DSLRs:

1. **Outdated Technology:** With most manufacturers focusing on mirrorless systems, DSLRs are no longer being developed. This means fewer new features and limited future support.
2. **Lower Low-Light Performance:** DSLRs typically lag behind mirrorless cameras when it comes to sensor technology and noise reduction, making them less effective in low-light conditions.
3. **Slower Autofocus:** While DSLRs perform well in traditional viewfinder mode, their autofocus systems are generally slower and less accurate compared to the advanced systems in mirrorless cameras.
4. **Limited Burst Rates:** For high-speed action, DSLRs often fall short, with slower burst shooting compared to mirrorless systems.



Sunset in Cape Town, South Africa.
Nikon D850, 200mm, 1/4000s, f 2.8, ISO 500

Mirrorless Cameras: The Future of Photography

Mirrorless cameras represent the cutting edge of photography technology and they're quickly becoming the preferred choice for wildlife photographers. By removing the traditional mirror mechanism found in DSLRs, mirrorless cameras are lighter, faster, and packed with advanced features.

Pros of Mirrorless Cameras:

1. **Advanced Autofocus:** Mirrorless cameras excel in autofocus performance. Features like animal eye-tracking and subject recognition make it easier to keep fast-moving wildlife in focus, even in complex environments.
2. **Faster Burst Shooting:** Mirrorless systems boast higher burst rates, with some models capable of shooting 20+ frames per second. This is invaluable for capturing action shots, like a bird taking off or a predator in pursuit.
3. **Newer Technology:** Mirrorless cameras benefit from the latest sensor technology, delivering better low-light performance, higher resolution, and advanced image processing.
4. **Lighter and More Portable:** Without the bulky mirror assembly, mirrorless cameras are typically smaller and lighter, making them easier to carry on long hikes or expeditions.
5. **Real-Time Feedback:** Electronic viewfinders (EVFs) show exactly how your settings (like exposure, white balance, or depth of field) will affect the final image. This real-time feedback is a game-

changer, especially in rapidly changing lighting conditions.

Cons of Mirrorless Cameras:

While in the first years mirrorless camera technology was not up to the level of DSLR, today these systems beat the DSLR in every aspect. The only drawback of a mirrorless system is the higher price.



Cheetah, the fastest mammal in the world. Okonjima NR, Namibia.
Canon R5, 450mm, 1/2500s, f 6.3, ISO 6400

Which One Should You Choose?

Wildlife photography is challenging in many aspects, so after the overall image quality that the camera can provide (resolution, dynamic range etc.), here are the key aspects to consider:

- High ISO performance to allow for faster shutter speeds in low light
- Higher FPS in burst shooting mode (ideally at least 12-15 FPS in RAW)
- Autofocus performance in low light situations
- If you are also shooting video, 4K 120fps is useful when filming fast action

If you're just starting out or working within a budget, a DSLR can be an excellent option. The affordability of used DSLRs and lenses allows you to build a capable wildlife photography kit without breaking the bank. Models like the Nikon D500, Canon EOS 7D Mark II, or even the higher-end Nikon D850 and Canon EOS 5D Mark IV remain solid choices for beginners and intermediate photographers alike.

However, if you're looking for the best performance and want to future-proof your investment, mirrorless is the way forward. The combination of superior autofocus, faster burst rates, and cutting-edge technology makes mirrorless cameras ideal for wildlife photography. With camera brands constantly putting out new models you can already find used mirrorless cameras on the market. Bodies like the Sony Alpha A7 IV or Canon EOS R6 offer exceptional value and performance for enthusiasts, while flagship models like

the Sony Alpha A1, Canon R1 or Nikon Z9 push the boundaries of what's possible.

When choosing a camera remember that camera technology changes much quicker than lens technology; this means the value of a camera is going to drop much faster than the value of lenses. My advice is to choose a camera system, get a medium budget camera and start building your lenses kit. If you have good lenses, it will be very easy to switch to a better camera at any point in future.

Ultimately, the best camera is the one that works for your needs, budget, and vision as a photographer. Whether you choose a DSLR or a mirrorless system, understanding its capabilities and limitations is key to making the most of your wildlife photography adventures. In the next chapter, we'll dive into lenses—the true game-changers in this genre.

Choosing the Right Lenses for Wildlife Photography

When it comes to wildlife photography, your lens choice is arguably more important than your camera. The right lens determines how close you can bring your subject, how sharp your images will be, and how well you can handle challenging lighting or action-packed scenes. In this chapter, we'll explore the different types of lenses available, focusing on what makes a great wildlife lens and the trade-offs between zooms and primes.

Wide-Angle and Standard Zooms

While telephoto lenses dominate wildlife photography, wide-angle and standard zoom lenses still have their place in your bag. Lenses like a **15-35mm** or a **24-70mm** allow you to capture close encounters or environmental portraits that place your subject in the context of its surroundings. These lenses are also invaluable for documenting your adventure—capturing the landscapes, the setting and even the people you meet during your travels.

However, wide-angle and standard zooms are secondary tools for wildlife photography. Their shorter focal lengths don't allow you to get close enough to most animals without disturbing them. They're better suited for complimentary storytelling shots rather than the core task of photographing wildlife.



Wide angle wildlife photography in Etosha NP, Namibia.
Nikon D850, 24mm, 1/1000s, f 5.6, ISO 64



A wide angle is also useful to better document your experience. South
Luangwa NP, Zambia.
Canon R5C, 28mm, 1/2000s, f 2.0, ISO 2500

Telephoto Lenses: The Heart of Wildlife Photography

When it comes to wildlife photography telephoto lenses are indispensable. They allow you to maintain a respectful distance from your subject while still capturing stunning detail. Most of the time you will be very far from your subject, with little available light, and your subject will be moving. All these elements are very challenging for the photographer and the best investment to help overcome these problems is the best lens you can get. Whether you're photographing a soaring eagle, a running gazelle or a shy leopard, a good telephoto lens will give you the reach, speed, and quality needed to bring the wild to life.

Key Characteristics of a Good Telephoto Lens

1. **Sharpness:** A good wildlife lens delivers exceptional sharpness, capturing every detail of fur, feathers, or scales.
2. **Fast Autofocus:** Wildlife moves quickly, and a lens with fast, accurate autofocus ensures you can keep up with the action.
3. **Image Stabilization:** Handholding a telephoto lens or shooting in low light often requires stabilization to avoid motion blur. Modern lenses with built-in stabilization (IS, VR, or OSS) make a significant difference.
4. **Aperture:** A wider maximum aperture (e.g., f/2.8 or f/4) allows more light to enter the lens, making it easier to shoot in dim conditions and achieve beautifully blurred backgrounds.

- 5. Durability:** Wildlife lenses are often used in harsh environments. Look for weather-sealed models that can withstand dust, moisture, and temperature extremes.

Zoom Telephoto Lenses

Zoom lenses are the most versatile option for wildlife photography. Their variable focal lengths allow you to adjust your framing without needing to physically move, making them ideal for unpredictable situations.

Common Zoom Options

- 1. 70-200mm f/2.8:**

- **Pros:** Excellent image quality, fast f/2.8 aperture for low light and shallow depth of field, great for close-range wildlife or zoo photography.
- **Cons:** Limited reach, making it less ideal for distant wildlife.
- **Best For:** Larger animals in closer proximity or environmental portraits of wildlife (what I call wildlife-in-a-landscape photo). Still useful in very low light situation thanks to the fast aperture and shorter focal length that allows for slower shutter speeds.

2. 100-500mm / 200-600mm ranges:

- **Pros:** Greater reach and flexibility for distant subjects. These lenses are lightweight enough to carry into the field and are relatively affordable compared to fixed primes. The zoom allows to capture a variety of different frames without the need of changing lenses.
- **Cons:** Narrower maximum apertures (f/5.6-7.1 or more) limit their performance in low light and reduce background blur.
- **Best For:** General wildlife photography, birding, or safaris in most conditions. Examples include the **Canon RF 100-500mm**, **Sony 200-600mm**, and **Sigma 150-600mm**.

3. High-End Zooms (e.g., Canon RF 100-300mm f/2.8):

- **Pros:** Combines the fast aperture of prime lenses with the flexibility of a zoom. Offers exceptional image quality and performance in low light.
- **Cons:** Very expensive, bulkier and heavier than standard zooms, and often they provide a smaller focal length range.
- **Best For:** Professional photographers seeking for higher performances.



Puma in hunting mode in Patagonia, Chile.
Canon R3, 600mm, 1/1000s, f 4, ISO 800

Fixed Telephoto (Prime) Lenses

Prime telephoto lenses are the gold standard for wildlife photography. With a fixed focal length and wider maximum apertures, they deliver unmatched image quality, speed, and performance.

Popular Prime Options

1. 300mm f/2.8:

- **Pros:** Compact, fast, and incredibly sharp. A great choice for situations where mobility is key.
- **Cons:** Limited reach for smaller or more distant wildlife.
- **Best For:** Medium-sized animals, sports, or birds in flight with a teleconverter.

2. 400mm f/2.8:

- **Pros:** Incredible sharpness, fast aperture for low-light shooting, and stunning background blur (bokeh).
- **Cons:** Expensive and heavier than shorter focal lengths.
- **Best For:** Photography from hides and large mammals, or birds with a teleconverter.

3. 600mm f/4:

- **Pros:** Exceptional reach and image quality, perfect for distant subjects. The wide aperture balances the challenges of low light and creates creamy bokeh.

- **Cons:** Heavy, very big (that makes difficult to travel with it) and expensive.
- **Best For:** Birds, safari wildlife, or any distant subjects requiring fine detail.

4. 800mm f/5.6:

- **Pros:** Unmatched reach, ideal for very distant or small subjects.
- **Cons:** Even heavier, bigger and pricier than the 600mm f/4, and the narrower aperture can be limiting in low light.
- **Best For:** Birds, small animals, or small wildlife in open landscapes. Very selective lens that only works in specific scenarios.



The Luangwa river have some of the biggest concentration of hippos in the world.

Canon R3, 600mm, 1/800s, f 4, ISO 3200

Zoom vs. Prime: Making the Choice

Choosing between a zoom and a prime lens depends on your budget, subject, and shooting style.

- **Zooms** are versatile and cost-effective, making them an excellent choice for beginners or those who encounter a wide variety of subjects.
- **Primes**, while expensive and less flexible, provide unparalleled performance for those who demand the best image quality and focus on specific types of wildlife.

My personal advice here is to start with an all-rounder telephoto lens like a 150-600 or 100-500, that will allow you to cover most situations and subjects, and only add a prime telephoto as second lens.

When buying lenses remember that lenses tend to have a much longer lifespan than cameras. It's better to start with a cheaper body that can be replaced in a few years and spend some more money on the lens that you will use for much, much longer. Also, if you have a DSLR system you might be able to find a used prime telephoto at very reasonable price.

Whichever you choose, understanding your lens's strengths and limitations will help you make the most of your gear. In the next chapters we'll dive into camera settings and techniques to ensure you capture your subject in all its glory.



Lenses like the Canon RF 100-500 provide a very good compromise between flexibility, performance and practicality, being ideal to carry around all the time.



While they offer unparalleled reach, quality and performance, big prime lenses like this Canon RF 600mm f4 can be very expensive and may require some more effort to be carried around.

Essential Accessories for Wildlife Photography

In addition to cameras and lenses, there are a few key accessories that can significantly enhance your wildlife photography experience. From stabilizing your shots to spotting distant subjects, and even ensuring you're dressed appropriately for the environment, the right gear can make all the difference.

Tripods: A Stable Foundation

A sturdy tripod is invaluable in wildlife photography, especially when using large telephoto lenses. Long lenses are heavy, and their narrow field of view makes even the slightest movements noticeable. A tripod not only provides stability but also allows you to shoot for extended periods without straining your arms.

Heads for Tripods: Fluid vs. Gimbal

- **Fluid Heads:** These are popular among videographers but can also work well for wildlife photographers, especially when panning to follow moving subjects. Fluid heads allow smooth and controlled motion, making them a great choice for shooting wildlife documentaries or birds in flight.
- **Gimbal Heads:** The gold standard for wildlife photography with large telephoto lenses, gimbal heads distribute the weight of the lens evenly and allow effortless movement in any direction. With a

gimbal, you can track fast-moving subjects without worrying about the lens tipping or becoming unstable.

For long days in the field, consider a lightweight carbon fiber tripod—it's easier to carry and less likely to vibrate in windy conditions.



A good tripod is a must-have for any multi-day photography trip.



Spotting wildlife in the Chobe River, on the border between Namibia and Botswana.

Canon R5, 24mm, 1/1600s, f 2.8, ISO 400

Binoculars: Spotting Your Subjects

While your camera and telephoto lens will capture the final shot, binoculars are your best tool for spotting wildlife before you even lift your camera. A good pair of binoculars will help you scan the environment for distant subjects, track movement, and observe animal behavior, giving you time to prepare for the shot.

Choosing Binoculars for Wildlife Photography

1. **Magnification:** Look for a magnification of 8x to 10x—strong enough to spot details without making it hard to hold steady.
2. **Objective Lens Size:** A larger objective lens (e.g., 42mm or 50mm) gathers more light, providing

brighter views, especially in low-light conditions like dawn or dusk.

3. **Durability:** Choose waterproof and fog-proof models to ensure they perform well in varying weather conditions.

Investing in a reliable pair of binoculars can enhance your ability to find and frame your shots quickly and effectively.

Memory Cards: Speed and Reliability

Memory cards might seem like a small detail, but they are crucial when photographing wildlife. Shooting bursts of action—such as a bird in flight or a predator on the hunt—requires a card that can handle large amounts of data quickly and reliably.

What to Look for in a Memory Card

1. **Speed:** Look for cards with fast write speeds (e.g., UHS-II or CF-express). A fast card ensures that your camera's buffer clears quickly, allowing you to capture continuous bursts without interruptions.
2. **Capacity:** Wildlife photography often involves shooting hundreds of images in a single session. Choose cards with ample storage (128GB or higher) to avoid running out of space.
3. **Reliability:** Use cards from trusted brands like SanDisk, Lexar, or ProGrade, and always carry spares in case of failure or unexpected capacity needs.

Memory cards are very cheap compared to the rest of our gear, not to mention to the costs of traveling to remote locations to find wildlife. Yet, a failure in a memory card can result in losing thousands of photos. So do not go cheap and get a few (2 at least) professional quality cards. Regularly formatting your cards in the camera after backing up your photos can also help maintain their performance and reliability.

Apparel: Comfort and Camouflage

Spending long hours in nature requires clothing that not only keeps you comfortable but also helps you blend into the environment. Your choice of apparel can affect both your experience and the success of your photography.

Neutral Colors for Camouflage

Animals are highly attuned to their surroundings, and bright colors can easily alert them to your presence. Choose clothing in neutral or natural tones like green, brown, or beige to help you blend into the landscape. Avoid bright whites (unless you are in a snowy environment), vibrant colors or patterns that stand out.

Layering for Comfort

- **Cold or Humid Environments:** For chilly or wet conditions, wear insulated, moisture-wicking layers to stay warm and dry. Start with a thermal base layer, add an insulating mid-layer, and finish with a

waterproof shell. Insulated boots and gloves are also essential to keep extremities warm.

- **Warm Climates:** For environments like a Zambian or Namibian National Park safari, lightweight, breathable fabrics are key. Choose long-sleeved shirts and pants to protect against the sun and insects while remaining cool. A wide-brimmed hat and sunglasses are great additions for sun protection.

Durability and Practicality

Wildlife photography often involves trekking through rugged terrain, so your clothing should be durable and functional. Look for pants with reinforced knees, jackets with ample pockets for small gear, and boots with good grip and ankle support.

Being well-prepared and dressed appropriately ensures that you can focus on capturing incredible wildlife images without being distracted by discomfort or environmental challenges.

2 - Getting to Know Your Subject

Wildlife photography isn't just about having the best gear or being in the right place at the right time. To truly excel, you need to become a student of your subject. Understanding the behavior, habitat, and routines of the animals you photograph will drastically improve your chances of capturing compelling and natural images. Research is a cornerstone of successful wildlife photography—it helps you anticipate your subject's actions, choose the right location, and approach in a way that minimizes disturbance and keeps everyone safe.

Why Research Matters

Every species has its own unique behaviors, patterns, and environmental needs. Without this knowledge, your photography becomes a game of chance.

Researching the following aspects of an animal's life can help you better predict their behavior and prepare for your shoot:

1. **Habitat:** Where does the animal live?
Understanding its preferred environment helps you narrow down where to look and ensures you're in the right place.
2. **Daily Habits:** Is the species nocturnal, diurnal, or crepuscular (active at dawn and dusk)? Knowing this will determine the best times to shoot.
3. **Feeding Patterns:** What does the animal eat, and where does it find food? Many animals return to specific feeding grounds regularly, giving you a prime opportunity for photography.
4. **Watering Habits:** Animals in arid regions often visit water sources at predictable times, especially during dry seasons.
5. **Social Behavior:** Does the species live in groups, pairs, or alone? Social dynamics can create fascinating photographic opportunities, from playful interactions to dramatic territorial disputes.

By studying these details, you can increase your chances of finding and photographing your subject in a way that tells a meaningful story while respecting their natural behavior.

Learning Through Example: Southern Africa Safari Environments

Southern Africa is one of the world's premier wildlife photography destinations, offering a vast array of habitats and species. From open savannas to the dense bushveld, this corner of the world is home to iconic animals that illustrate the importance of understanding behavior and habits.

Big Cats: Masters of Stealth

Species like lions, leopards, and cheetahs are among the most sought-after subjects for wildlife photographers. However, photographing them requires patience and timing:

- **Activity Patterns:** Big cats are crepuscular, meaning they are most active during the cooler hours of dawn, dusk, and nighttime. During the heat of the day, they usually rest in the shade or hidden in tall grass.
- **Habitat:** Lions often prefer open savannas or areas near waterholes, while leopards favor dense trees and rocky areas where they can climb and hide. Cheetahs, with their need for speed, gravitate towards open plains.
- **Hunting Behavior:** Understanding how these predators hunt can yield dramatic action shots. Lions hunt in groups, often stalking prey under the cover of darkness, while cheetahs rely on speed and daylight for their high-stakes chases.

With these infos we can understand that to photograph big cats effectively we must arrive early or stay late, position yourself near likely hunting grounds or water holes and once we spot one of them we should be able to read their behavior to anticipate any action that might occur.



Cheetah preparing for an ambush in Etosha NP, Namibia.
Canon R3, 600mm, 1/2500, f 4, ISO 640

Daytime Activity: Herbivores and Birds

While predators are more active during cooler hours, many herbivores and birds are active throughout the day:

- **Herbivores:** Elephants, giraffes, zebras, and antelope are often seen feeding or traveling in groups during daylight hours. Their predictable grazing habits make them excellent subjects for mid-morning or afternoon shoots.
- **Birds:** in the right seasons Southern Africa is a birder's paradise, with species like lilac-breasted rollers, hornbills, and secretary birds providing vivid colors and dynamic behaviors. Birds tend to be most active in the early morning when they feed and call.

Understanding their routines can help you plan your day to capture a variety of subjects in different lighting conditions.



Bee eaters in South Luangwa NP, Zambia. Canon R3, 600mm, 1/4000, f 5.6, ISO 1250

Waterholes: A Hub of Activity

Waterholes in arid regions like Namibia and Botswana are lifelines for animals, especially during dry seasons. These locations are hotspots for photographers:

- Predators like lions and leopards may stalk the area, waiting for prey.
- Herbivores like elephants, antelope, and giraffes visit regularly to drink and bathe.
- Birds often gather in flocks, creating opportunities for action shots or dramatic reflections.

Positioning yourself near a waterhole during peak times can yield a wide variety of images, often within a single shoot.



Waterhole in Etosha National Park. Canon R5, 500mm, 1/1250, f 7.1, ISO 200

Resources for Deeper Learning

While this guide provides a foundation, it does not delve into the specifics of any one species. To gain deeper insights into particular animals, their behaviors, and their habitats, there are excellent books and resources available. Here are a few recommendations to help you expand your knowledge:

1. Books

- *The Behavior Guide to African Mammals* by Richard Despard Estes - A comprehensive reference for understanding the behaviors of Africa's mammals.
- *Birds of Southern Africa* by Ian Sinclair, Phil Hockey, and Warwick Tarboton - An excellent field guide for bird enthusiasts.
- *Wildlife of Southern Africa: A Field Guide to the Animals and Plants of the Region* by Vincent Carruthers - A general guide covering a variety of species.

2. Online Resources

- eBird (ebird.org): A global birding resource where you can find species data, hotspots, and behavior information.
- iNaturalist (inaturalist.org): A platform for identifying and learning about wildlife through community input.

3. Documentaries and Films

- *Our Planet* and *Planet Earth* series - Incredible cinematography paired with deep insights into animal behavior.
- *The Hunt* (BBC) - Focused on predator-prey interactions and strategies.

A word about these high-budget documentaries: while showcasing incredible images and explaining the natural behaviors of the species, these are made-up films that put together scenes captured by dozens of camera teams over years of filming in the field. Do not expect to show up in a national park or a game reserve and see all of these scenes over a few days!

By leveraging these resources, you can become more attuned to the nuances of the species you want to photograph, enhancing your ability to capture truly authentic and impactful images.



Pangolin, one of the most trafficked animals in the world.
Okonjima NR, Namibia.
Canon R5, 120mm, 1/50s, f 2.8, ISO 400

Respecting Your Subject

While getting close to wildlife is exciting, it's important to do so in a way that minimizes stress for the animal and keeps you safe. Here are a few guidelines:

1. **Keep Your Distance:** At the first sign of the animal being bothered by your presence, stop and slowly move further away. Getting too close can alter an animal's natural behavior or put both you and the animal at risk.
2. **Move Quietly:** Sudden movements or loud noises can startle animals. Approach slowly and be patient.
3. **Observe First:** Spend time watching your subject without shooting. Understanding their behavior will help you predict their next move and capture more authentic moments.
4. **Follow Ethical Practices:** Avoid baiting or luring animals and always respect park rules and guidelines.

Remember that you should never do anything that might change the animal's natural behavior. Making noise so that the animal can look at you IS NOT OK. By respecting your subject's space and habits you'll not only capture better images but also contribute to their conservation and well-being.

Getting to know your subject is about more than just photography—it's about connecting with the natural world and gaining a deeper appreciation for its complexity. With a solid understanding of the animals you photograph and the ecosystem they live in you'll be able to anticipate their movements, capture their essence, and tell stories that

resonate with viewers. In the next chapter, we'll delve into the art of working with light, composition, and other techniques to elevate your wildlife images.



A rare sighting of leopard in the Etosha NP,
Namibia.

Canon R3, 840mm, 1/1250s, f 5.6, ISO 3200



Brown bear in the forests of Slovenia.
Canon R5, 200mm, 1/500s, f 2.8, ISO 500

3 - Mastering Camera Settings

The unique challenges you have to face to photograph wildlife demand complete mastery of your camera settings. Animals move unpredictably, lighting conditions change rapidly, and you have little to no control over both the subject and the lighting . To consistently capture sharp, well-exposed, and visually compelling images you need to be confident in handling your gear under pressure. By the end of this chapter, you'll have the basic understanding of how to set up your camera for the different scenarios you will encounter.

The Exposure Triangle: The Foundation of Photography

At the core of photography technique lies the exposure triangle, which consists of three elements: aperture, shutter speed, and ISO. These are the only three settings that allow you to change your exposure and together they determine how much light reaches your camera's sensor and whether your photo is properly exposed. Mastering the interplay between these elements is crucial for wildlife photography.

Aperture (also called f-stop)

The aperture controls the size of the lens opening, directly affecting how much light enters the camera. It also influences depth of field—the range of the image that appears sharp. The wider the f-stop, the lower the number (f/1.4, f/2.8, f/4) and the less depth of field we have, meaning the portion of space that is in focus in our image is very shallow; on the opposite side, the narrower the f-stop and the bigger the number (f/11, f/16, f/22 and so on), the more depth of field we have, resulting in more sharpness across the depth of the space in front of our lens. Let's make it more clear:

- **Wide Apertures (e.g., f/1.4 to f/4):** Let in more light, ideal for low-light conditions and creating a shallow depth of field. This helps isolate your subject by blurring the background, making it stand out. The smaller the number, the wider the aperture: f2.8 is wider than f4.

- **Narrow Apertures (e.g., f/11 to f/16):** Allow less light but provide a greater depth of field, keeping more of the scene in focus. This can be useful for landscapes or when multiple subjects need to be sharp. The bigger the number, the smaller the aperture: f16 is narrower than f11.



Young impala in South Luangwa NP,
Zambia.

Canon R3, 600mm, 1/1600s, f 2, ISO 2000

Wildlife Quick Tip:

Wide apertures like f/2.8 or f/4 are often your best choice for wildlife photography. They allow more light in low-light conditions, such as early morning or late afternoon, and produce beautiful background blur (bokeh) that emphasizes your subject, making it stick out from the blurred background.

Shutter Speed

Shutter speed determines how long the camera's sensor is exposed to light. It has a significant impact on motion:

- **Fast Shutter Speeds (e.g., 1/1000s to 1/4000s):**
Freeze fast-moving subjects, such as birds in flight or predators chasing prey.
- **Moderate Shutter Speeds (e.g., 1/250s to 1/500s):**
Capture slower movements, such as grazing animals or walking elephants, without motion blur.
- **Slow Shutter Speeds (e.g., 1/30s to 1/60s):** Create intentional motion blur, useful for artistic effects like panning shots or capturing running water. It can still be used to get sharp images if the subject is very still.

Wildlife Quick Tip:

As a rule of thumb, your shutter speed should be at least equal to the focal length of your lens (e.g., 1/600s for a 600mm lens) to avoid camera shake. When shooting fast-moving animals, go even faster—1/2000s or more—to freeze

the action. In case of low light situations you will need to break this rule by going to much lower shutter speeds, but in order to do that you will need to apply some of the techniques discussed later to prevent blurry photos.

ISO

ISO is a gain applied to the signal coming out of your camera sensor. A low ISO setting produces cleaner images, while higher ISO settings increase brightness at the cost of added noise. This noise however is not caused directly by high ISO, but rather by the lack of light that creates a poor signal-to-noise ration.

- **Low ISO (e.g., 100-400):** Best for bright conditions, offering clean images with minimal noise.
- **Moderate ISO (e.g., 800-1600):** Useful in lower light or for increasing shutter speed and aperture flexibility.
- **High ISO (e.g., 3200 and above):** Necessary in very low light but introduces noticeable noise, especially in older cameras.

Wildlife Quick Tip:

In wildlife photography, don't be afraid to push your ISO higher to achieve a faster shutter speed. Modern cameras handle noise well, and a slightly grainy image is better than a blurry one; in fact, while with modern AI based software

is possible to recover very noisy images, it is still impossible to restore a photo that is blurred because of a too long exposure.

Every camera model perform in a different way, so test your camera to find out the response it has to higher ISOs and do not be afraid to use it; however remember that in extremely low light conditions you must always expect less than ideal image quality.



An elusive puma spotted under a snowstorm in Torres del Paine NP, Chile.

Canon R3, 600mm, 1/100s, f 4, ISO 6400

Reading the Histogram: A Critical Tool

The histogram is a graph that represents the tonal distribution of your image, from shadows (left side) to highlights (right side). Understanding and using the histogram helps you achieve proper exposure, even in challenging conditions.

- **Balanced Histogram:** Peaks are distributed across the graph, with no areas clipped at the edges. This indicates a well-exposed image.
- **Clipped Highlights (Right Edge):** Peaks at the right edge indicate overexposure, where details in bright areas are lost.
- **Clipped Shadows (Left Edge):** Peaks at the left edge indicate underexposure, where details in dark areas are lost.

Wildlife Quick Tip:

Always check your histogram, especially in high-contrast scenes like backlit subjects or animals in bright sunlight, and make sure you are preserving all the highlights - that means the histogram is not touching the right side of the graph. Adjust exposure compensation if necessary to preserve detail.

Camera Modes, a quick walkthrough

Modern cameras offer a variety of shooting modes, each suited to different situations. Knowing when to use them is key to adapting quickly in the field.

Aperture Priority (A/Av Mode)

In aperture priority mode, you control the aperture while the camera automatically adjusts shutter speed for proper exposure. What you can do here is to set our lens at the widest aperture and our ISO at a value that allows for good enough shutter speeds. The problem with this mode is that if light condition will change you might end with a slower shutter speed causing the image to be blurry.

Shutter Priority (S/Tv Mode)

In shutter priority mode, you control the shutter speed and ISO, and the camera automatically adjusts the aperture. The aperture setting has an incredible impact on how the image will look, as by changing the aperture we not only change how much light is going through the lens but also how much of the image will be in focus. I want to be in charge of how my photo will look without leaving the decision to my camera, so I never use this mode.

Manual Mode

Manual mode means the camera is not doing anything; you have to manually set aperture, shutter speed and ISO values. This gives you the complete control over the look of the image, but as in the previous modes this comes with some drawback. In this case, if light conditions changes you have to manually adjust our values. In a very dynamic and often unpredictable situation like wildlife photography this is a big problem.

Manual Mode with Auto ISO

In most recent cameras we have the ability to set the ISO value to AUTO, meaning the camera is adjusting the ISO based on what the built in light meter is reading. If you do that while setting the camera in manual mode this gives you complete control over aperture and shutter speed while the camera automatically adjusts ISO to achieve proper exposure. This is the best setting in most wildlife scenarios, provided that the aperture and shutter speed values you choose are still allowing enough light on the sensor preventing ISOs to raise too high.

Note that with this mode you still have a big responsibility about the quality of the exposure: if you keep a shutter speed of 1/2000s in an extremely low light scenario the ISO will raise through the roof, while in bright sunlight using a

slow shutter speed of 1/10s will result in a completely blown out image as the camera cannot go any lower than ISO 100.

Wildlife Quick Tip:

Manual with auto ISO is a highly effective setup for wildlife photography. For example:

- Set a wide aperture (f/2.8 or f/4) for a shallow depth of field.
- Use a fast shutter speed (e.g., 1/1000s to 1/2000s) to freeze motion.
- Let the camera handle ISO, ensuring proper exposure without compromising on sharpness.
- If you see the ISO going too high, lower the shutter speed.
- If you see the ISO being at the minimum (ISO100 for most cameras) and the images still being overexposed, get to a faster shutter speed.

Exposure Compensation

Exposure compensation allows you to adjust brightness when using any automatic exposure mode, including Manual with Auto ISO. If you are getting too bright or too dark photos you can do one of the following.

- **Increase Exposure (+EV):** if your photos are too dark you can increase the exposure by dialing some +EV compensation. This will cause your ISO to increase (if using Manual with auto ISO) but remember that is better to get a good exposure in camera with higher ISO rather than an underexposed image that you will need to brighten up later.
- **Decrease Exposure (-EV):** if your photo is too bright you should do the opposite and add some negative EV compensation. I find this to be often the case as it is very important that your histogram values are not touching the right end of the spectrum as that would result in pure white. There are exceptions of course, but generally you can get away with dark areas in the image more easily than with blown out highlights.

Wildlife Quick Tip:

When using Manual with auto ISO combine it with exposure compensation; this will give you back the control on how bright or dark the image should look. Dial in the

widest aperture in your lens and a safe shutter speed (1/2000s or more for fast moving subjects like flying birds) that will allow you to freeze the action. Take a test image and check your histogram, you will see if you need to dial some exposure compensation. At this point you are ready for the action!



Canon R3, 600mm, 1/2500s, f 4, ISO 320

Autofocus: Ensuring Sharpness

Autofocus is critical for wildlife photography, where subjects often move unpredictably without giving you the time to double check the focus or manually adjust it.

Therefore autofocus is one of the most critical areas that you have to master. While every camera brand has its own autofocus system with different function names (sometimes the menus and single functions can even be different between camera models), the key principles are always the same. Let's see the basics.

Autofocus Modes

- **Continuous AF (AF-C/Servo):** In this mode the autofocus keeps the selected point (or subject, for cameras with intelligent af-tracking) in focus all the time. This means that if the distance between your camera and the subject is changing the focus will keep adjusting so that you can shoot anytime without problems. In wildlife photography you will be using this mode most of the time as it is essential for animals in motion.
- **Single AF (AF-S/One-Shot):** in single mode the camera acquires the focus on the selected point and, once done that, the focus stays locked there until you trigger it again. This gives you more precision when shooting landscapes and better low light

autofocus capabilities, but it's not usable when dealing with moving subjects.

Autofocus Areas

- **Single Point AF:** Focus on a specific point of the frame that you can select within the autofocus area.
- **Zone or Wide Area AF:** Covers a larger area, looking for a moving subject; useful for erratic subjects like birds in flight.
- **Tracking AF:** Only available in mirrorless cameras, this is one of the biggest advantages of mirrorless when compared to DSLRs. With this function the camera can recognize the subject and keep it in focus regardless of its position in your frame. Most recent cameras can also identify the eye of your subject to make sure they are in focus.

Burst Shooting and Frame Rates

High frame rates (12 FPS or more) are vital for capturing fleeting moments in wildlife action. Switch to burst mode to increase your chances of nailing the perfect shot, and do not be afraid of taking a lot of images. Remember, you can always delete them later.

Most cameras only have a couple of seconds of continuous shooting at the highest frame rate before they stop taking pictures. This happens because the images are temporarily

stored in a buffer memory in the camera and then transferred to your memory card. This buffer can only take a small number of photos and when it's full the camera will stop shooting until the images in the buffer are transferred to the actual memory card. For this reason you don't want to randomly press down the shutter button at any time; that will easily fill your buffer at the wrong moment and when the action will happen you will not be able to shoot. Instead, take small bursts of 2-3 photos, leaving a few seconds between the bursts. This way your buffer will always have space for that moment when some action will actually happen and you can then take a longer burst of images at the right moment. Also, having a higher quality memory card with higher write speeds will result in faster writing and longer bursts available.

Other Critical Settings

- **Use auto white balance** for most scenarios.
- **Shoot in RAW** for maximum quality and flexibility in post-processing.
- Change your camera color space from **sRGB** to **AdobeRGB**.
- **Spot Metering**: Focuses exposure on a small area, ideal for backlit subjects or very contrasty scenarios.
- **Evaluative/Matrix Metering**: Balances exposure across the frame, use it when you want a correct and even exposure over the whole frame.

- **Optical and electronic stabilization:** turn it on and it will help you getting sharper images, especially when using slower shutter speeds. If you are using a DSLR system remember to turn off stabilization when using a tripod.



Chamoix in the Lepontine Alps, Italy.
Canon R3, 600mm, 1/1000, f 4, ISO 1250

Putting It All Together: A Field Example

Imagine you're photographing a lion stalking prey at dusk. Here's how you'd set up:

- **Mode:** Manual with Auto ISO.
- **Aperture:** f/4 (or max aperture that your lens allow) for a shallow depth of field and to maximize light in your sensor.
- **Shutter Speed:** 1/2000s to freeze movement.
- **ISO:** Adjusted automatically by the camera.
- **Autofocus:** Continuous AF with a small focus point on the lion's face.
- **Burst Shooting:** Enabled for high FPS.
- **White Balance:** Auto, with adjustments in post-processing.
- **Photo quality:** RAW

By mastering these settings and their interactions, you'll be prepared to adapt to any wildlife photography scenario, ensuring sharp, well-exposed, and dynamic images.

Practice Exercise

You want to practice these settings before having a lion in front of your lens. Set up in your backyard or a local park and practice tracking birds or small mammals with different settings. You can even do it with your dog or cat. Adjust as needed to understand how your camera responds and take a lot of test shots too see how your camera behave in different light conditions so that, when that once-in-a-lifetime encounter will happen, you will be prepared.

4 - Composition

Techniques & Basic Principles

A compelling wildlife photograph goes beyond capturing a moment. It's about creating an image that resonates emotionally, draws the viewer in, and tells a story. Composition is the framework that transforms a technically good photograph into a great one. By mastering composition techniques you can elevate your wildlife photography to new heights.

Negative Space: Let Your Subject Breathe

Negative space is the “empty” or neutral area in your frame that surrounds the subject. While often overlooked, it is one of the most powerful compositional tools, especially in wildlife photography. Used effectively, negative space can add drama, balance, and a sense of scale to your images.

Why Negative Space Matters

In wildlife photography, animals are often on the move or positioned against complex surroundings. Negative space helps to simplify the scene, ensuring that the subject remains the focal point.

1. **Balance and Harmony:**

A well-balanced negative space complements the subject rather than competing with it. This harmony creates a more visually pleasing image.

2. **Storytelling:**

Negative space can be used to imply movement, mood, or even tension. For instance, a bird flying toward open space in the frame creates a sense of freedom, while one flying out of the frame can feel rushed or incomplete.



In this shot the kudu is looking to the right so I left more negative space in that direction for a more balanced composition. Canon R3, 600mm, 1/800s, f 4, ISO 2500

Practical Tips for Negative Space

1. Follow the Subject's Direction:

Always leave space in the direction the animal is looking or moving. For instance:

- If a lion is walking to the left, position it on the right side of the frame and leave more space to the left.
- A perched bird looking up into the sky should have more space above than below.

2. Proportion of Subject to Negative Space:

- For **portraits**, limit negative space to keep the focus on details like eyes and facial expressions, but be careful to still leave some breathing space around your subject.
- For **environmental shots**, expand the negative space to emphasize the subject's habitat and create a sense of scale.

3. Avoid Clutter:

Negative space should be clean and unobtrusive. Distracting elements like bright spots or competing shapes can diminish the subject's impact. While we can't move our subject to a different location, we can move our position or use camera settings (for example a wider aperture would blur the background) to simplify our background.

Creative Uses of Negative Space

- **Minimalism:**

Create minimalist images by using expansive skies, open fields, or calm waters as negative space. These scenes focus attention on the subject while conveying a sense of peace or isolation.

- **Dynamic Framing:**

Experiment with off-center compositions to create tension or curiosity. The rule of thirds is a good

starting point but feel free to break it when it serves the story.

While the subject is the star of your photograph, the background sets the stage. A well-managed background can enhance the subject, while a distracting one can ruin an otherwise perfect shot.



In this case the subject is slightly off-center towards the bottom left corner of the frame, leaving negative space up and right to match with the bird's movement.

Canon R3, 600mm, 1/2500, f 4, ISO 320

Blurred Backgrounds for Isolation

- Use **wide apertures (f/2.8 to f/4)** to achieve a shallow depth of field. This blurs the background, creating separation between the subject and its surroundings.
- Long focal lengths, such as 400mm or more, naturally compress the scene and amplify background blur.

Using Background for Context

Sometimes the background plays a role in telling the story. This is especially true for environmental portraits, where the habitat is as important as the animal itself.

Examples:

- A polar bear against a vast, icy expanse conveys the harsh beauty of its environment.
- A cheetah resting in tall golden grass evokes the heat and wildness of the African savannah.

Angle: Perspective Changes Everything

The angle from which you photograph wildlife can dramatically affect the impact and mood of your image. Adjusting your perspective can help you highlight the subject, minimize distractions, and create a stronger connection with the viewer.

Eye-Level Perspective

Photographing animals at eye level creates intimacy and empathy. This perspective not only allows the viewer to connect with the subject on a personal level; it also gives you a great help with your background, as your subject won't be compressed against the ground (what usually happens when shooting from a vehicle for example). Instead, you will have a much bigger space between your subject and the background resulting in a more pleasant, out of focus backdrop.

Benefits of Eye-Level Perspective:

- **Emotional Connection:** The viewer feels as though they are sharing a moment with the animal.

- **Background Control:** Shooting at eye level often simplifies the background, creating a more visually appealing composition.



Eye-level perspective. Canon R5, 300mm,
1/800, f 5.6, ISO 800

Low-Angle Photography

Shooting from a low angle (camera closer to the ground) makes the subject appear larger, more powerful, and more dominant. This technique works especially well for majestic species like lions and elephants.



With a lower angle the animal looks bigger.
Canon R5, 100mm, 1/100, f 4.5, ISO 5000

High-Angle Photography

While less common, high angles can offer unique perspectives. For instance:

- Photographing a bear fishing in a stream from an elevated vantage point can capture the scene in its entirety.
- Shooting flocks of birds from above can create abstract and dynamic patterns.

Lens Choice: Framing the Story

Your lens choice directly impacts the composition of your wildlife images. Each focal length offers different possibilities for framing, storytelling, and creating mood.

While a lot of photographers tend to adjust the focal length based on their distance from the subject, a better approach is to base your lens choice on the photos you want to take. If you want a tight portrait without any additional element you can go for the longer lens you have; from there, the shorter your lens becomes, the more of the environment and habitat will be showcased in the photo.

Long Telephoto Lenses (300mm and Beyond)

Long lenses are the workhorses of wildlife photography, allowing you to capture close-up details without disturbing your subject.

Use Cases:

- **Intimate Portraits:** Highlight the texture of fur, feathers, and eyes.
- **Behavioral Shots:** Zoom in to capture subtle actions like feeding or grooming.

Medium Telephoto Lenses (100-200mm)

These lenses strike a balance between capturing details and incorporating the environment.

Use Cases:

- **Environmental Portraits:** Include elements of the surroundings, such as a giraffe among acacia trees.
- **Dynamic Action Shots:** Medium telephotos are versatile for mid-range action like deer running across a field.



Elephant herd crossing the open plains of Etosha NP, Namibia.
Canon R5, 100mm, 1/1600s, f 7.1, ISO 160



Young ibex on the lookout in the Lepontine Alps, Italy.
Canon R3, 35mm, 1/400s, f 4, ISO 100

Wide-Angle and Standard Lenses (15-70mm)

Wide-angle lenses are less conventional but can produce dramatic, storytelling images. These are ideal when you want the animal to be very small in your frame, surrounded by a very vast landscape. To get the best results you want the shape of your subject to be clearly recognizable in the frame, for example silhouetted against the sky.

Benefits:

- **Close Encounters:** Get up close while including the landscape.
- **Habitat Shots:** Show animals within the grandeur of their environment, such as a herd of wildebeest against a vast sky.

Final Thoughts on Composition

Composition is a blend of technique, creativity, and practice. By understanding negative space, managing backgrounds, experimenting with angles, and choosing the right lens, you can craft images that are not only technically strong but also emotionally and visually captivating.

Above all, remember that wildlife photography is about storytelling. Let your compositions convey the beauty, behavior, and essence of the wild creatures you photograph.



Giraffe texture, Etosha NP, Namibia.
Canon R3, 600mm, 1/1000s, f 5.6, ISO 250



Showing the landscape adds a sense of the place, like here
in Samburu NR with Mt. Kenya in the background.

Canon R5, 300mm, 1/800s, f 5.6, ISO 1600



Sometimes it's ok to fill the frame with the subject.

Okonjima, Namibia.

Canon R5, 200mm, 1/500s, f 2.8, ISO 500

5 - Understanding and Using Different Types of Light

Light is the cornerstone of photography, shaping the way we perceive and interpret images. In wildlife photography mastering light is even more critical as we rely entirely on natural light to capture animals in their habitats. The quality, direction, and intensity of light can dramatically transform a photograph, turning a simple image into a compelling story. Having virtually no control over the lighting you must be able to use whatever you have available and make the most of it in any situation.

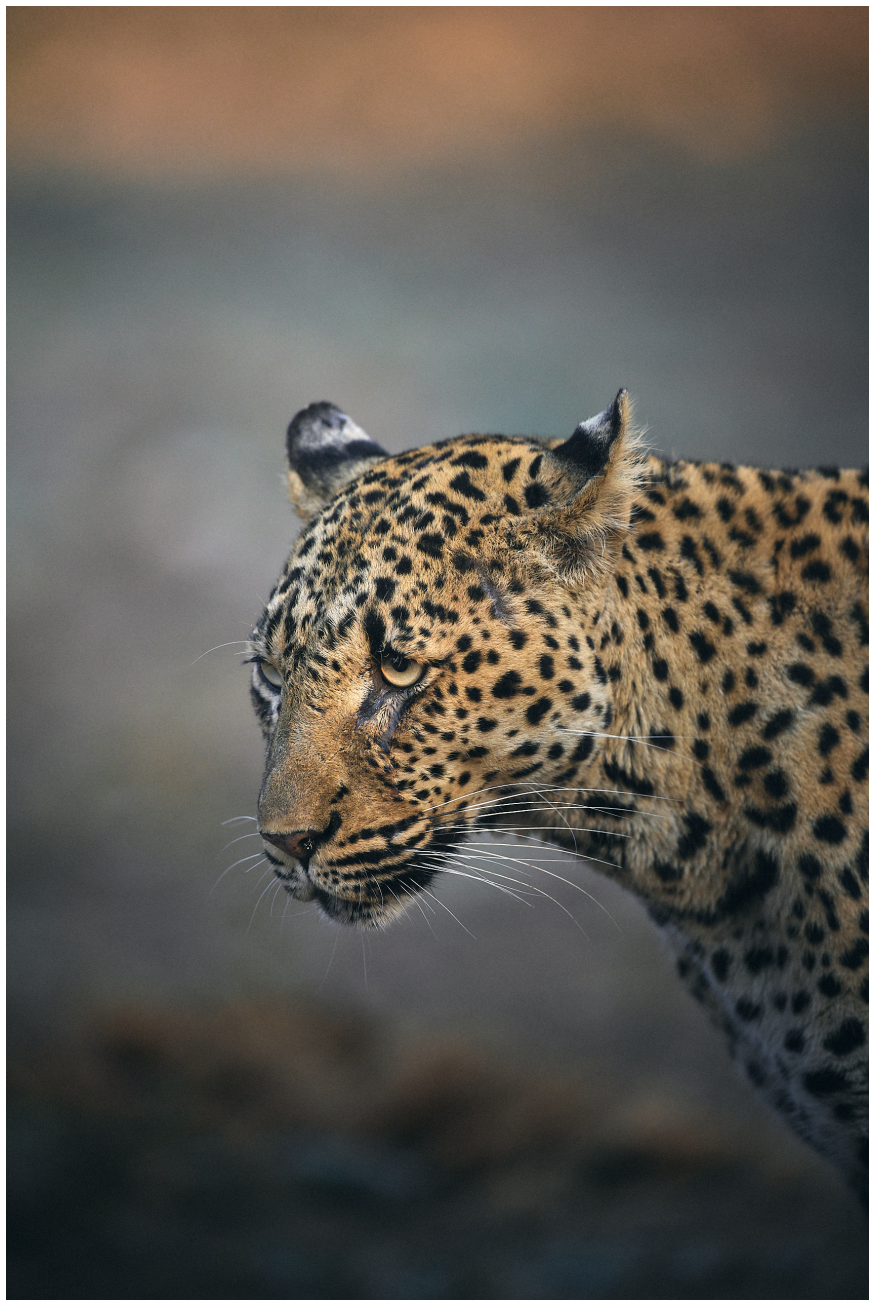
Golden Hour Light

What Is Golden Hour?

Golden hour is the short period after sunrise and before sunset when the sun is low on the horizon. During this time, the light is traveling through a bigger portion of the atmosphere, losing some the bluish part of the spectrum and creating a warm, golden hue. Golden hour is renowned among photographers for its ability to transform ordinary scenes into breathtaking scenes. Luckily for us, it happens in the same portion of the day when most animals are more active.

The Characteristics of Golden Hour Light

- **Quantity:** Moderate; not as intense as midday sun but sufficient for most photographic needs.
- **Harshness/Softness:** It can vary a lot depending on location and situation, but it's usually much softer than midday light; shadows are long and diffused, resulting in a natural gradient between light and shadow.
- **Color:** Warm tones, ranging from gold to deep orange, adding richness and drama to the scene.



Golden hour in South Luangwa NP, Zambia.
Canon R3, 600mm, 1/800s, f4, ISO 800

Why Golden Hour Is Ideal for Wildlife Photography

Golden hour is widely regarded as the best time for wildlife photography, and for good reason:

1. **Enhanced Colors:** The warm tones enhance the natural beauty of animals, bringing out the golden hues in fur, feathers, and skin.
2. **Gentle Shadows:** Soft shadows add depth and dimension without overpowering the subject or background.
3. **Rim Lighting and Backlighting:** The low sun creates opportunities for rim lighting, highlighting the edges of animals and adding a sense of ethereal beauty. Backlighting, especially when animals are surrounded by dust or mist, can result in dramatic, atmospheric images.
4. **Ambient Magic:** The combination of warm light and long shadows creates a mood that is difficult to replicate in other lighting conditions.

Challenges of Golden Hour Photography

Golden hour is fleeting. Depending on your location and the season, this magical light may last only 30-60 minutes. This limited time frame requires efficient planning and quick decision-making. The lower light levels may also necessitate the use of wider apertures or higher ISO settings, particularly for fast-moving animals.

Golden Hour: Best Techniques and Shots

- **Close Portraits:** Use the warm light to emphasize the textures and details in your subject's fur or feathers.
- **Silhouettes:** Position the animal between your camera and the sun to create dramatic silhouettes.
- **Environmental Compositions:** Combine the golden light with wide-angle shots to create images that showcase the animal within its habitat, enhanced by the warm tones.



Side lighting or back lighting can help you making the most of the harsh midday sunlight.

Canon R3, 600mm, 1/2000, f4, ISO 200

Direct Sunlight: The Harsh Reality

What Is Direct Sunlight?

Direct sunlight occurs when the sun shines unimpeded, typically in the central hours of the day, when it is highest in the sky. This type of light is abundant but also challenging due to its harshness and intensity. It is also difficult to expose as we face extreme contrast, with very dark shadows and very bright highlights.

Characteristics of Direct Sunlight

- **Quantity:** Extremely bright; the brightest natural light available.
- **Harshness/Softness:** Very harsh, creating strong contrasts between light and shadow.
- **Color:** Neutral or slightly cool, depending on the time of day and atmospheric conditions.

Using Direct Sunlight in Wildlife Photography

While many photographers shy away from direct sunlight, it can be used effectively with the right approach:

1. **Fast Action Shots:** The abundance of light allows for fast shutter speeds, making it ideal for freezing the motion of fast-moving animals.

2. **Catchlights:** Direct sunlight often creates catchlights in the eyes of animals, adding life and vitality to portraits.
3. **Dramatic Contrast:** If used creatively, the sharp contrasts can result in visually striking images, particularly with side or backlighting.

Challenges of Direct Sunlight

1. **Harsh Shadows:** High contrast can obscure details in shadowed areas, especially on the underside of animals.
2. **Overexposed Highlights:** Bright reflections on shiny surfaces like water or glossy feathers can lead to blown-out highlights.
3. **Washed-Out Colors:** The intense brightness often diminishes the richness of colors, making images look flat and uninspiring.

Techniques for Shooting in Direct Sunlight

- **Use Shadows to Your Advantage:** Position yourself to capture side-lit or backlit shots, which can soften the impact of harsh light.
- **B&W:** Sometimes the best we can do is to just embrace the extreme contrast and experiment; try converting your RAW files in black and white, a format that usually works better than color when it comes to extreme contrast.



Light can create very dramatic scenes during golden hours, like in this photo of a puma taken in Torres del Paine NP, Chile.

Canon R3, 600mm, 1/1000s, f 5.6, ISO 250



You can turn harsh midday light to your advantage by creating high contrast black and white photos.

Canon R3, 600mm, 1/1250s, f 8, ISO 250



A cloudy sky can be the photographer's best friend, providing soft, even light through the day.

Canon R5, 200mm, 1/500, f2.8, ISO 800

Cloudy Light: The Soft Blanket

What Is Cloudy Light?

Cloudy light occurs when the sky is overcast, diffusing the sunlight and creating a soft, even illumination. It is usually a very good situation for the photographer as there is still a very good amount of light but without the high contrast we have to deal with on a clear sky day.

Characteristics of Cloudy Light

- **Quantity:** High to moderate, depending on cloud density.
- **Harshness/Softness:** Very soft; shadows are minimal.
- **Color:** Neutral or slightly cool, often enhancing natural hues.

Why Cloudy Light Is a Wildlife Photographer's Ally

1. **Even Lighting:** The diffused light reduces harsh shadows, making it easier to capture detail in both highlights and shadows.
2. **Natural Colors:** Overcast light preserves the natural tones of the subject and surroundings.

3. **All-Day Shooting:** Unlike golden hour, cloudy light is consistent throughout the day, allowing for extended shooting sessions.

Challenges of Cloudy Light

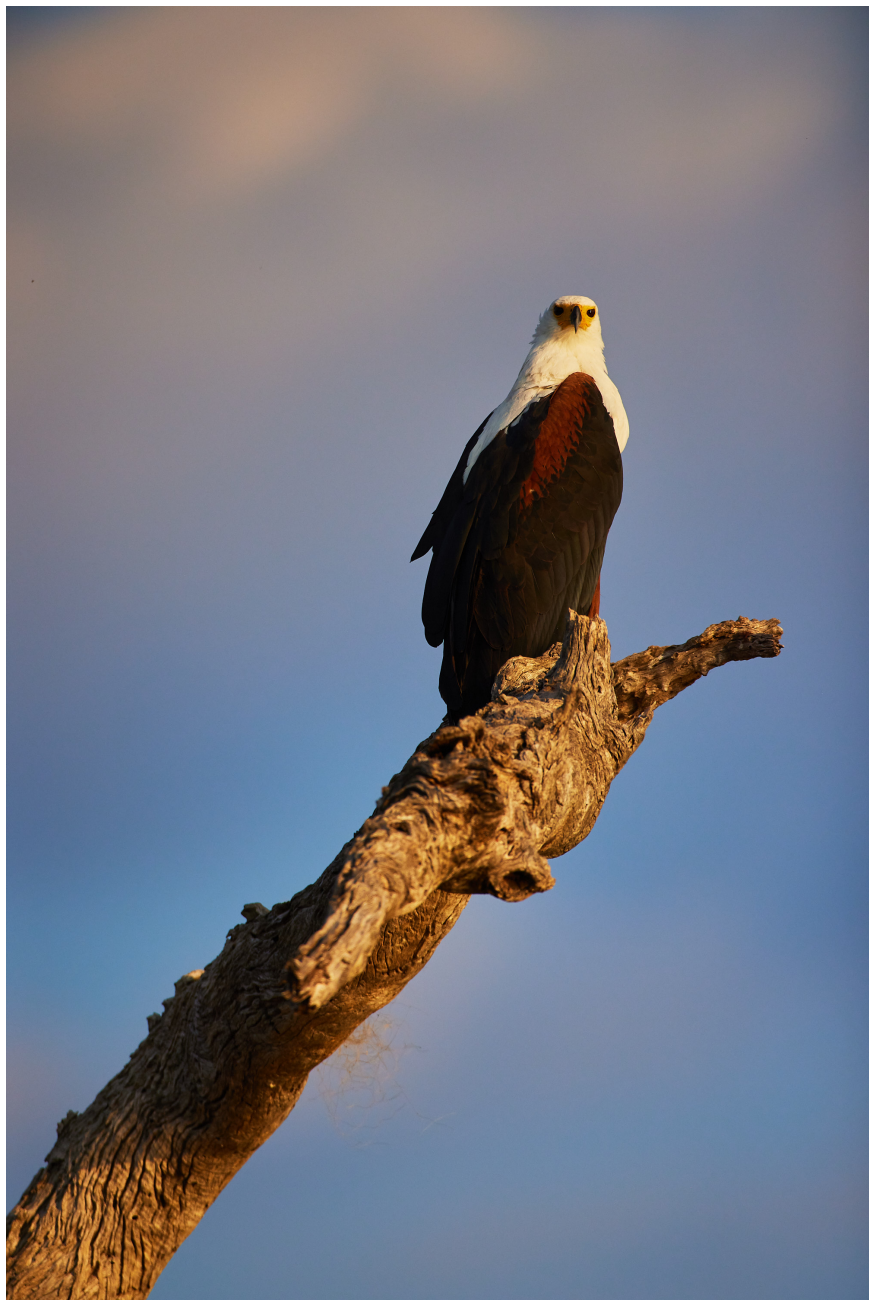
1. **Flat Scenes:** The lack of shadows can make images feel less dynamic and three-dimensional.
2. **Lower Light Levels:** In dense forests or heavily overcast conditions, slower shutter speeds or higher ISO settings may be required.

Techniques for Shooting in Cloudy Light

- **Close-Up Details:** Use the soft light to capture intricate textures and patterns in fur or feathers.
- **Mood Shots:** Overcast conditions lend themselves to atmospheric and moody compositions.
- **Boost Contrast:** Post-process to add contrast and depth to images that might feel flat.



Golden hour in the Sossusvlei Dunes, Namibia.
Nikon D850, 200mm, 1/2000s, f7.1, ISO 800



Color contrast in the Chobe NP, Botswana.
Canon R5, 840mm, 1/6500s, f5.6, ISO 1000

Dusk Light: Twilight Magic

What Is Dusk Light?

Dusk occurs during twilight, the period before sunrise and after sunset when ambient light fades but before complete darkness sets in. At this time of the day we have mostly blue light being reflected through the atmosphere, while the horizon usually has various hues of orange colors, making for extremely dramatic shots.

Characteristics of Dusk Light

- **Quantity:** Low and fading quickly.
- **Harshness/Softness:** Very soft, creating a gentle, diffused glow.
- **Color:** Cool tones, often blue or purple.

Challenges of Dusk Light

1. **Extremely Low Light:** Requires fast lenses, higher ISO settings, low light autofocus capabilities and stable support like tripods or monopods.
2. **Short Duration:** The light fades rapidly, giving little room for error.

Techniques for Shooting at Dusk

- **Embrace the Blues:** Use the cool tones to your advantage, creating moody and mysterious images.

- **Long Exposures:** Experiment with slower shutter speeds to capture motion blur, or aim for the moments where the animal is most still.
- **Spotlight Effects:** Use artificial light cautiously to highlight your subject without disturbing it.



You can create a very dramatic effect by adding light to your scene; however this is an advanced technique that often involves a good planning.

Canon R3, 600mm, 1/200s, f 4, ISO 25600

6 - Where Theory Meets Experience

Photography, like any artistic skill, is a journey of discovery. This eBook has equipped you with foundational knowledge about wildlife photography—from understanding your gear and mastering settings to working with light and composing compelling images. But the real magic happens when you spend time in the field.

Theories and techniques are essential, but they are only the starting point. True mastery comes from practice, observation, and adapting to the unpredictable realities of the natural world. Every outing, whether it's a long planned safari or a spontaneous day visit to a local forest, offers an opportunity to refine your skills, experiment with new ideas, and learn from the challenges you encounter. The field is where wildlife photography truly comes alive; some days you will come back with amazing photos, some others you will not get anything. That's ok, and it's in these moments that your growth as a photographer happens.

Learning Through Workshops and Community

One of the most effective ways to accelerate your learning and build a strong portfolio is by participating in photography workshops. These immersive experiences not only provide structured guidance from experienced instructors but also allow you to connect with like-minded individuals who share your passion for wildlife.

Workshops often take place in prime wildlife locations, giving you access to incredible photographic opportunities you might not discover on your own. Whether it's photographing predators in Africa, bears in Alaska, or birds in your local wetlands, workshops are tailored to help you get the most out of your time in the field.

Beyond the technical and creative lessons offered by the instructor, workshops foster a sense of community. Sharing experiences, successes, and even challenges with fellow photographers can be incredibly enriching. You'll gain fresh perspectives, exchange tips, and often build lasting friendships with people who understand your passion for wildlife and photography.

If you're serious about improving your craft, consider investing in a workshop that aligns with your interests and goals. The knowledge and inspiration you'll gain will stay with you long after the workshop ends.



Sometimes the true reward is the process itself. Flying over the Namib Desert to reach a remote location in Namibia.



Elephants crossing the Luangwa river right in front of our camp during a photography workshop in Zambia.

Appreciating the Journey

As photographers, it's easy to get caught up in the pursuit of the perfect shot. But wildlife photography is about so much more than the images you bring home. It's about the quiet moments spent waiting for the first light of dawn, the thrill of seeing an animal emerge from the shadows, and the sense of connection you feel with the natural world.

Each outing, whether you capture a portfolio-worthy image or not, is an opportunity to immerse yourself in nature. It's about learning patience, observing the beauty and intricacy of wildlife, and gaining a deeper appreciation for the world around us. These experiences are as valuable as the photographs themselves, if not more so.

The Endless Adventure

Wildlife photography is a lifelong adventure. No matter how much you learn or how many images you capture, there will always be new challenges to tackle, new species to discover, and new stories to tell. Embrace the process, celebrate your progress, and remember that the journey is as important as the destination.

Now it's your turn to put the theory into practice. Take your camera, step into the wild, and let the natural world inspire you. Whether it's the rustle of leaves, the distant call of a bird, or the fleeting glance of a predator, every moment spent in nature has the potential to transform into something extraordinary.



About the author

Paolo is an Italian film director and photographer with a passion for wildlife and landscapes. Born in the Italian Alps he grew up skiing, climbing and exploring his home mountains, which instilled a lifelong love for the outdoors. He first picked up a camera to document and share the adventures he and his friends experienced, capturing the thrill of exploration and the beauty of nature.

After years of expeditions across the globe, working with top outdoor athletes and leading brands and climbing in the biggest and most remote mountain ranges on Earth, Paolo discovered a whole new world when, on his first trip to Africa, he was introduced to wildlife photography.

Today, Paolo travels extensively, especially across Africa, drawing inspiration from its rich biodiversity and stories of conservation. He shares his knowledge on his YouTube channel and through photography workshops in some of the world's most breathtaking destinations, helping others refine their craft and connect more deeply with nature.

