HASSELBLAD®

WILDLIFE PHOTOGRAPHY

How do you get to be a wildlife photographer? I'm convinced that intimate relations with and wide knowledge about nature and all its creatures are musts for anybody aspiring to become a successful wildlife photographer. You have to know a lot about the relationship between plants and animals. How the delicate balance of nature works. You also ought to know your biology. No photographer can give his subject a ring and make an appointment for a certain time and place.

The photographer has to find his subjects, using the knowledge acquired about the influence of seasonal changes on different species. Weather and wind are very important in contacts with a prospective animal subject. Familiarity with an animal's pattern of behavior or the special living conditions of birds are important factors in getting acquainted with models.

Most birds migrate, for example. They breed in one place and have their "vacations" somewhere else. Throughout their lives they pass certain points which are pretty easy to find. Each bird species has its specialized breeding grounds, an area satisfying demands for nourishment, security and attractiveness. The animal photographer has to seek out animals in these secure areas if he's to have any chance of getting decent pictures.

Most animal and nature photographers are recruited from the band of enthusiasts pursuing outdoor life as scouts, or members of field biology clubs, animal protection societies or ornithological societies.

The idea of using a camera to convey some of their visual impressions to others is usually secondary.

The synchronization of nature knowledge and the camera-tool make an *animal photographer*.

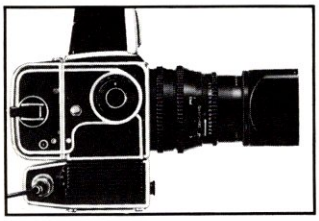
Becoming a knowledgeable field biologist and a well-drilled cameraman should be the objective of anyone interested in *wildlife photography*.

The equipment used contributes about 10% to results achieved. The photographer's own efforts count for 90%. Stringent artistic demands on composition instead of straight forward zoological rendition provides the wildlife picture with an extra touch. The photographer's personality puts a stamp on a picture. He has to have a feeling for the highly varied possibilities provided by a light source. And the photographer's reflexes have to react at the right moment in order to produce exciting results. But a burning personal interest is vital. And perhaps what started out as a hobby could end up as the profession I regard as the most inspiring of all.

Most uninitiated people believe that patience is the main asset of a wildlife photographer, but patience depends wholly on the significance and importance attached to the subject. I confess I get awfully impatient waiting for a bus or dealing with a foreign customs officer. But I can wait indefinitely in some stinking, steaming jungle hole or in freezing arctic wastes while awaiting an exciting animal subject. Discomfort just doesn't exist then. What's going to happen? How can I get my best shot from this position? What lens should I use? What exposure?

The photographer has to know his natural history and biology and display great respect for his subject for successful photography near a bird's nest, discreet photography which doesn't scare the birds into abandoning eggs or chicks.

Cover photo: Bahadur Hirji. Photo above: Victor Hasselblad

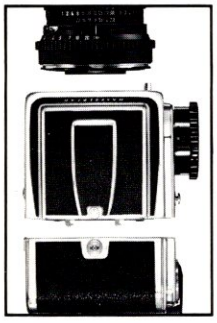


Using the Hasselblad 500EL/M and remote release by cable, the photographer was able to set up his camera, protected from rain and sun, on a tripod within telephoto range of a floating grebes' nest at the edge of the reeds.

He set himself up at safe distance and kept an eye on the scene through a pair of binoculars, making exposures when desired without being near the camera and without disturbing the bird.

A belief in the importance of my task makes a difference too.
My own selfish drive has been to create interest and understanding for the fellow creatures who have as much right to the earth as we have but are incapable of asserting themselves in competition with Man. I believe I have a mission to serve as a "good samaritan" and PR man for wild animals. I want my depiction of the last specimens of a species to be preserved for coming generations.
Current animal and bird photographers must be acknowledged as very important opinion-makers in the newly awakened environmental awareness aroused in societies all over the world. The written word is extremely important indeed but is often limited by the barriers of language.
The message of a picture is understood by all. Even by many people who have never learned to read and write.
Animals are not aware of political boundaries. Many have learned where the safe boundaries of national parks or game preserves lie. And a picture crosses boundaries with almost equal abandon.
The combination of words and pictures is an informational factor of global significance.

Photo: Sven Gillsäter



If you're lucky enough to get a polar bear in your viewfinder, you ought to have a 500mm Tele-Tessar on the camera. If lighting conditions are poor, you can make a quick switch to a magazine containing faster film. With a cooperative subject, you may even have time to switch to a 250mm lens. But watch those shaky hands.

The animal photographer, be he amateur or pro, bears a heavy responsibility for truth and sincerity in his pictures.

Are special characteristics called for?
Without any fear of exaggeration, I'd like to assert that every animal photographer has to pass through a "tadpole" stage in his development. He has to have been a collector of grubs or kept lizard babies in his bed. His parents probably used to wonder: "What's going to become of the kid?"
One of the most significant properties in a person's development into an animal photographer is curiosity. The urge to explore and the joy of documenting what you find are important ingredients. You can't really learn to be an animal photographer. That's something you have to develop into, making it your hobby or possible even a profession.
Some people might think that animal photography is just an expression of another extremely primitive instinct: the hunting instinct.
If that's the case, you can thank the inventor of the camera for making photography the noblest and most humane form of hunting there is.
A camera hunt is undoubtedly a lovely way to get up close to nature.
Attaining success with a camera among animals and in the wilds calls for certain characteristics above the average. Sight and hearing must be very well-trained. Intuition and other hidden characteristics have to be put to the test.
If your main interest is birds, the chances of success are greatest if you are also a skillful ornithologist, an energetic bird watcher able to quickly pick out the different patterns of birds, sensitive to their ways of communicating, or someone with a real musical ear.
The photographer with animals on the brain has an enormous advantage if he or she also knows a thing or two about ecology (the science dealing with the relations between living organisms and their environment) and ethology (the study of animal behavior patterns).
The latter is a relatively new discipline whose founder was awarded the Nobel Prize in 1973. The more you know in advance about the way an animal subject thinks, the more likely a shot will be successful.

Picture sense and consideration

If you don't have a well-developed pictorial sense, a feeling for lines, light and colors, not even the world's most expensive equipment will get you better pictures. This should apply to pictures of animals as well as to ordinary photography. The hard work and patient mortification which often go into unique pictures need not be emphasized as reasons why a picture should be regarded as better than it is, as is often the case unfortunately. The photographer must have a strong sense of responsibility in addition to the characteristics mentioned above.

The wildlife photographer has never caused as many tragedies out in nature as the hunter and egg collecter but been behind enough to warrant a little reminder in this context.

Not too long ago, the happiest event in a nature photographer's life consisted of discovering the nest of an unusual bird species. The photographer quickly "cleaned up" around the site, removing twigs or grass, chopping off boughs to let in the light to the glistening eggs and building a blind or putting up a tent with peep-holes at a suitable distance.

His triumph consisted of obtaining a picture of a thoroughly suspicious bird, staring into the lens, and four eggs in the round nest. Or perhaps a picture of a chattering brood of chicks who, thanks to the photographer's thoughtless clean-up of their previously well-shaded nest, were exposed to light which was far too strong and perhaps too hot.

This photographic feat invariably ended in tragedy. For the bird family. The photographer's actions were often watched by a curious crow who later transformed the scene into gruesome carnage after the photographer's departure and failure to restore a protective curtain round the nest.

There are undoubtedly many interesting and instructive pictures to be taken in the area around a nest, but nest photography calls for unfailing judgement. In my view, this type of photography should be reserved for conservation-minded photographers with scientific training, people whose studies and research may be of importance in the preservation of a species. We can no longer afford to risk the lives of a single brood of golden eagles or horned owls in order to satisfy sensation-hungry wildlife photographers.

There are other, more innocent subjects for the camera. No bird is harmed by a photographer who tries to capture a flight pattern against the sky, sea or forest glade. Birds should be portraited in search of food. Or perhaps they can be filmed during mating dances. That's when hard knowledge about the behavioral pattern of a bird species comes in handy. That kind of photography will never be branded as forest banditry.

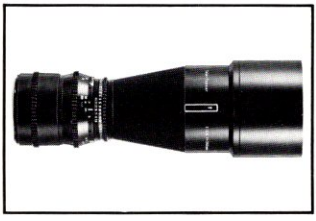
It's difficult, if not downright impossible, to set up any general rules on how to outwit your subjects.

But there are a few tricks which usually prove to be reliable, at least with four-legged animals. If you've tracked, surveilled or got an animal in your binoculars in some other way and you'd like to get within camera range without being discovered, one of the first things you do is choose an approach against the wind. In other words, don't let the animal get a whiff of the area's new guest.

The biggest chance of getting close without discovery is to move forward when the animal itself is busy with something, grazing, digging after some quarry or feeding on the carcass of an animal. You soon learn how to stiffen as soon as the animal in front of you stops to review the situation. A golden rule is to avoid catching its eye. Look past, down or anywhere else. And if you're discovered, you really have to make every little movement with a minimum of gestures and as slowly as possible so that every change can be registered without panic. After having once succeeded in getting a whole roll with a stag and his harem during the mating season, I sank back behind a beech root knole in order to change film in the magazine as leisurely and quietly as possible. Before I had wound to frame 'l', I felt a warm breath on my neck. The stag's curiosity had got the best of him. So he came to see if I was a dangerous competitor or not. I didn't move, just stared down at some clover. After a few breathless minutes, he went back to his does. The herd then moved off without fear.

Ring-necked peccaries in Barro, Colorado and racoons in the Everglades have behaved in the same way. An extremely shy flock of white mountain sheep in the Chugach Mountains in Alaska were unable to bridle their curiosity when encountering a "dead" photographer in their path in a ravine. They were

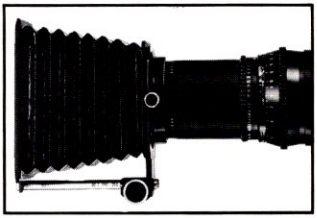
Photo: Sven Gillsäter



After a bath in a vulcanic pool, this buzzard made a landing on the warm shell of a leatherback turtle. A "lucky" shot only available to photographers who always keep their cameras ready for action. The new 350mm Tele-Tessar lens is very useful in improving the animal photographer's preparedness.

Photo: Bertil Pettersson

Most big game shows itself near a water hole or the like at dawn or sunset. Or sometimes they take an evening dip in a forest mere like the moose here. The sun is then low in the sky, and you need an effective lens shade for striking backlit shots. The shade also "hides" the lens from sharp-eyed subjects.



outwitted and let themselves be captured in about 40 exposures with a Hasselblad before panic spread in the flock.

Thus, you should try to attract animals, not drive them away. In addition, most animals are creatures of habit. The fox makes the same rounds day after day. Deer follow beaten tracks. The badger uses the same route year after year. You can almost set the clock by the osprey's morning hunt over the rushes and bays.

And at exactly 12.05 p.m. every day, the Peruvian condor soared past a desert-like point between the Pan American Highway and the Pacific. This resulted in my getting pictures from above and below. After a few days of hunting, he led me to the mountainous area where he and his colleagues lived, just south of Pisco in southern Peru.

Animals up close

"Can you tell me how to get a few shots of the deer family which visits our garden?"

"We have moose in the forest around our summer cottage year after year, and I think they regard us as being harmless. But how do I get a few shots of them? Do I have to have one of those cannon-like telephoto lenses? And will they attack me?"

"Down there, just by the jetty, we get the same grebe pair every year, but I've never succeeded in getting a decent picture of them. They must have their nest somewhere nearby. But as soon as I show with my camera they dive. How can I trick them? I've seen photographers display really elegant pictures of birds I believe are much shyer than our lovely grebe pair. Please give me your advice."

These are only a few of the hundreds of questions hobbyists, amateur photographers and pros have asked me over the years. I don't know if my tips ever led to anything.

Is wildlife photography really all that special? It's much harder to photograph wild animals and birds in their natural habitat than toiling with people and tame animals. You have to know as much as possible about the properties and characteristics of your subjects. Almost every animal has some sense which is poorly developed, and this weakness should be exploited in getting pictures. The moose, for example, has a fine nose, good ears but poor sight. One prerequisite is to gain an animal's confidence. They have to know that the photographer is not an evil creature. You can become friendly with deer by feeding them at a foddering rack, by always wearing the same clothes and not paying them too much attention. How expensive your equipment should be depends on what your standards are. The Hasselblad can hardly be called the cheapest of cameras but you wouldn't have to buy a whole system to begin with. A well-designed system like that can be supplemented from year to year. But a telephoto lens makes it easier, of course, to get successful wildlife pictures, and you don't have to write off the gear the first ten years. Being equipped with patience is one key to success. You can't do without it. Many wildlife photographers also maintain that the element of luck is essential. But the skilled, knowledgeable photographer has the luck! Of course, things can be pretty uncomfortable and unpleasant at times, but these torments are more than compensated by all the exciting experiences associated with photo-hunting. Something always happens.

There are plenty of places to train the budding wildlife photographer. You can always train up quick reflexes and speed at a bird house or bird bath, and you can also gain experience in observing mannerisms and behavior, differentiating between species and the color rendition, characteristics and sharpness of various films. An early field experience is that wildlife soon grows accustomed to Man.

In the Everglades national park in southern Florida, birds, alligators, fish and snakes have adapted so successfully to the tramp of human feet on the plank gangways crisscrossing the swamps that they no longer run away. But if anyone should leave this maze of railed gangways, the animals immediately dive into their hiding places. It is also obvious in parts of the world in which people are infrequent guests that animals are completely unafraid. The fewer predators there are in the biotope, the friendlier the animals and birds.

To get near especially shy but habitual animals, the advanced wildlife photographer can now operate his Hasselblad 500EL/M and Magazine 70 via radio. The photographer can go to a place within binocular distance and avoid the risk of having his scent picked up.

Such devices expand the circle of wildlife subjects, as does photocell triggering. But the photography itself loses a little of its charm, I feel. The photographer is also unable to compose his picture. The background is constant, but you can't observe an animal's movements in detail, and you have to take what you can get.

Keep in mind...

I've had the privilege of recording animals and nature on film. I've also been able to study the ability of my fellow human beings to observe the spectacles displayed by nature each spring, a time of the year whose shifts and patterns are perceived so differently by different people.

The assistant I had who lived close to nature all year round could pick out events twice as fast as I could, while an assistant who only went out into the field after a winter's hibernation was almost no use at all. Everything had to be pointed out to him.

It happened on Öland, an island off the Swedish east coast, a favorite island for many nature-lovers, still exciting, still possessing a flora astonishing in our part of the world, an island which enriches the senses with the song of birds from warmer and more southerly climes, inviting calls on spring flights to the midnight sun, the arctic, to the taiga of Russia and tundra of Siberia.

We were always out early in the morning. While there was still a biting chill in the air. The car bumped along slowly over the track through the marsh. We moved along at the pace of nature's awakening, our Hasselblad equipment at the ready in the back seat. A pair of binoculars around our necks. An exposure meter in my breast pocket. And a monopod extended and ready for action.

We stopped the car by a spring-green field drenched in dew. In only a few seconds, we had exposed a whole roll of color film of a point on the field only 40 feet from the car. The guest observer at my side craned his neck, stared intensely at the field, took up his binoculars and carefully scanned the terrain.

"What was so special about that?" he whispered.

"Why, didn't you see the partridge pair watching us?"

"That's impossible. There wasn't a thing there."

Oh indeed. The birds *were* well-hidden in the brush but could still be seen by an observant photographer. And perfectly camouflaged in a dangerous area patrolled by foxes.

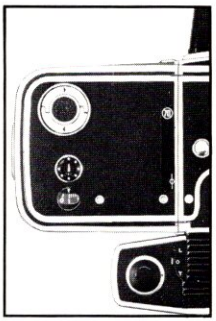
People who devote themselves to animal photography have greater opportunities to enjoy the bounty offered by nature. You get out into the wilds at a time when life begins again to gather for a new day. The air is fresh then. The light is virgin-pure. And the experience is just wonderful.

The trained eye of the nature photographer also observes far more than that of the ordinary observer. The eye learns to pic out details which are difficult to detect, movements which are almost imperceptible, and the ear records "insignificant" sounds which possess a meaning all their own.

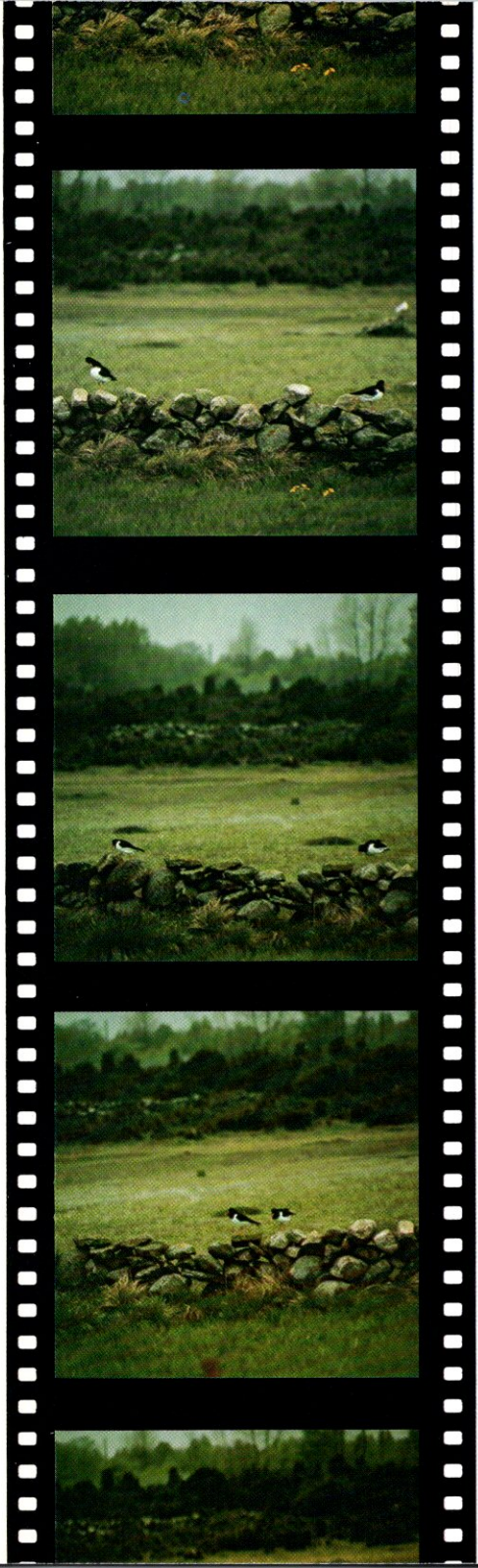
With a Hasselblad camera in your hand, your reflexes can be almost as fast as your subject's. Technical equipment has to be operated by reflex action if a photographer is to have time to compose his shot for results with that little "extra".

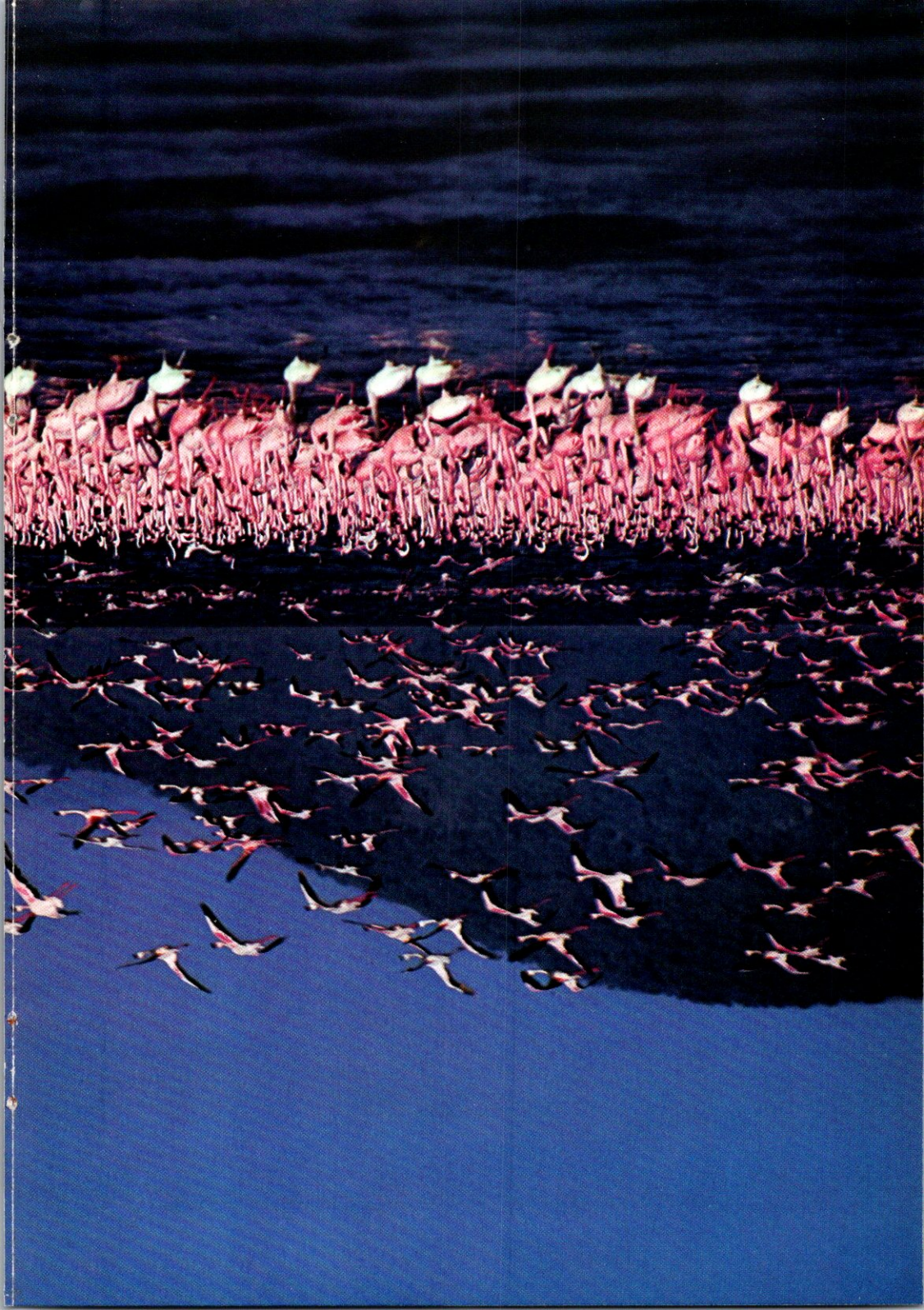
The animal photographer is a hunter whose aim is more accurate and who shoots with

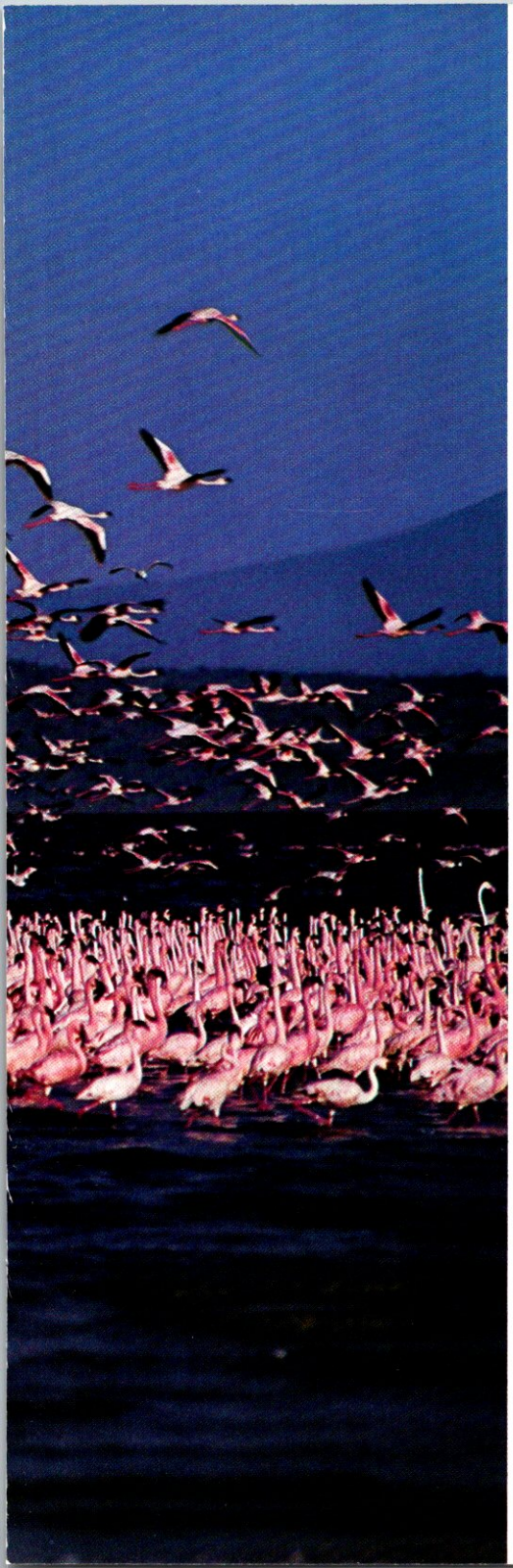
Photo: Sven Gillsäter



The ability of a nature photographer to capture fast-moving scenes like this with a Hasselblad 500EL, a Magazine 70 and a 500mm lens is simply astonishing.
This series of pictures was taken from the cranked down window of a car. The mating of these oystercatchers was over in less than 30 seconds.







greater care because he is almost always acquainted with his subject's psychic and physical characteristics. You have to know a lot about the animals you hunt. Otherwise you could keep on hunting all your life without getting a decent shot.

The more you know about the habits of animals, their temperaments (which are appealing in every case except fear), the weak points in their mental equipment, etc., the greater your chances of getting in close.

One of their three most important protective mechanisms, sight, sound and the sense of smell may be more poorly developed than the other two. You have to know which and to make use of that weakness. With knowledge of your subject, you should be able to anticipate what it might do next.

I would never have got any shots of polar bears in King Karl Land in the Arctic if I hadn't read and been fascinated by Rudi's knowledgeable description of the Arctic Ocean's vagabond.

And I probably would never even have caught sight of any polar bears without having boned up on their patterns of behavior. Not to mention the fact that I was pretty anxious to avoid any indiscretions around an animal big enough to eat me.

No sifakor or varis would ever have passed in flight over my 500mm lens without my being familiar in advance with their biotope and life rythm on Madagascar.

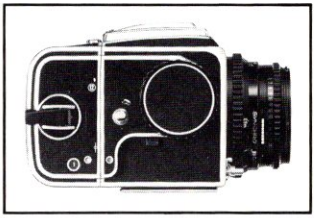
If I hadn't known that the horrible concert of howler monkeys in Barro Colorado, Panama Canal Zone, was simply bluster, I would

Photo: Toni Angermayer

Lake Nakuru in Kenya has been called "The world's greatest ornithological wonder." The lake's 1 1/2 million flamingos provide a massive splash of pink. A car is the best blind in East African national parks. Equipment should always be at the ready.

Photo: Sven Gillsäter

A long exposure with the image blurred by movement emphasizes the subject's vividness. Blurring is just right here.
A telephoto lens is just as useful in a zoo as at large, but 150mm and 250mm lenses are probably the lenses used most often.
Depth-of-field is regulated by the f/stop chosen so that fussy details in the background are thrown out of focus.



certainly have fled from their territory in terrified panic, perhaps even forgetting to take my camera with me.

Wildlife day at the zoo

On the weekends, thousands of proud fathers take their families to the zoo. Hundreds of them carry cameras around their necks, very often a Hasselblad, and a bulging gadget bag over their shoulders. However, the camera is seldom used to its best advantage, despite an abundance of nice motifs.

Perhaps the reason is an untrained photographic eye, slow photographic reactions, poor preparation or only half-hearted intentions from the very beginning.

With a sharp camera eye, you can create minor masterpieces using the often charming combination of childern/animals and, as an alternative to solo hunting in the forest, deep snow or bird marsh, this branch of wildlife photography can provide much pleasure for the whole family. Everybody takes part, but the photographer must be the master of his camera, using as few setups as possible. No fussy posing!

Perhaps a father with a little experience from producing children's books in this environment could give you a few tips.

Get some color on the kids. Not wild colors but a harmonic blend of colors. Be the first one through the turnstiles in the morning! Then there's no crowding around the enclosures and the animals are always liveliest in the mornings, just as they are in nature. Children should play the leading roles, even if the limited depth-of-field of a telephoto lens makes for fuzzy contours in the corners of the pictures. A few downy dashes of color in a corner of the slide! The picture can become more exciting with a few hands stretching out, or with the top of a cap in view.

A few fuzzy profiles can frame a flock of lamas begging for tid-bits. But the whole thing has to be pleasant. No stress. Just patience and time! And take a lot of pictures. Film is cheap really.

And finally you get your picture.

In modern zoological gardens, there's no difficulty in composing pictures without disturbing backgrounds. The age of iron bars will soon be over. They're being replaced by moats and vegetation. The concrete bunker has also just about died out. If you can't get your subject with a natural background, you should concentrate on close-ups. The morning offers the funny faces and expressions some people wait for, dramatic events, sentimental scenes, chases and feeding shots. Using fast, modern color film and even faster black and white emulsions, there's no problem working without a tripod, even when using extreme telephoto lenses. You can even squeeze off hand-held shots with a 500mm lens at 1/60 s with a little practice in breathing and temporary support.

Let the children go into the Children's zoo but don't try to force any pictures. No provocative poses with animals of the type: "Child with armlock on poor little beastie." Animals in enclosures have to get to know the new guests. And we grown-ups shouldn't try to help out. In cases like that, children and animals are equal. If they can behave as they please, uncertainty passes quickly.

The best pictures come with the camera watching and waiting at a respectful distance from the photographer who has worked discreetly and quietly, giving the subjects time to establish natural contact. It is always useful to look at a series of pictures taken from the same angle but which depict a mimed event or a series of movements such as the water play of polar bears. Even if your shutter speed is a little too slow, the fuzziness increases picture interest. The picture lives!

Nothing is static in an animal enclosure where each animal plays its roll without interference or direction from adult photographers with definite opinions about composition.

The immediate pictures are taken by the photographer who catches on fast, who reacts smoothly with his camera, managing the technical end reflexively – the way you shift gears in a car without thinking.

Animals in the city

Are there any animal pictures to take in a city? There sure are. New York, London, Stockholm. All have a surprisingly rich variety of fauna, despite all the asphalt and cement which dominate the city scene. Swedish newspapers sometimes write about a moose family tying up traffic on some city street. A badger makes nightly rounds, plundering garbage bags, in one part of town. A golden eagle patrols the Stockholm waterways each winter, and last year a rare hunting falcon

performed aerial acrobatics outside the Royal Castle each morning. The display always ended in a dive to collect a hapless duck out of the floe-filled water in the middle of Stockholm.

Two urban foxes were responsible for one of the most popular film scenes in Swedish TV. They were shown wandering over the frozen water of Lake Mälar, completely indifferent to an icebreaker lumbering past in a channel. So there are plenty of animal subjects within the city limits. Since I had an assignment a few years ago to depict animal life in the Swedish capital, I have a few tips which might be of value to other urban wildlife photographers. I would like to feel that a series of pictures showing neighbors in the urban jungle can prevent the worst kind of thoughtless behavior in our urban environment by people whose perception of nature has been gathered from the trees in concrete squares or the plants in vases in open-plan offices.

At three in the morning, the black-headed gull bathed in the fountain surrounding a fantastic glass sculpture in Sergels torg (in the middle of Stockholm) with the city's skyscrapers in the background. There's not much traffic at that time of day and you can park close by, wind down your window and shoot a series of photographs without disturbing the bather.

On amusing occasions like this, the photographer should make sure of getting at least one quick exposure and then, if the model continues bathing, try to find a better picture angle, better lighting, especially on the subject's head, and a better way to throw the background out of focus.

If I want my subjects arrayed in a special place, I can put a few tricks to use. For example, I once wanted a flock of gulls, a typical feature in any depiction of the "Venice of the North", assembled with the sun setting over the Strömmen waterway, the Royal Castle's easily identifiable crown silhouetted against the dark evening sky. As an "assistant" I used a 100 lb bag of fish entrails which fish-sellers had been happy to part with. And the flock of gulls proved to be bigger and more enthusiastic than I had dared to hope for.

The first exposures were made with a 250mm Sonnar on a Hasselblad, but when the models ignored the cameraman's going-on, I shifted down to 120mm and ended up with the normal angle lens. The shutter speed varied, but the idea was to capture the out-of-focus beat of their wings against the disc of the sun.

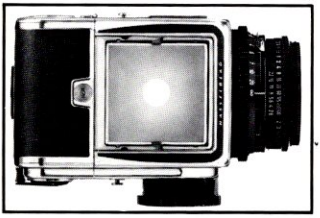
A bag of peas was enough to direct a few hundred pigeons to a place at which a wide-angle lens at street level was enough to capture both people and readily identifiable landmarks. The result was a pleasant mixture of people, traffic and urban silhouettes in which the invectives of ignorant people could not be seen. They felt that the photographer was a terrible person who encouraged lice- and disease-bearing pigeons. Between exposures, the photographer tried to explain that they did not spread more disease than any other vermin...

It's generally much easier to come to terms with city animals, because they are used to lots of people, noise from traffic and sudden changes in their environment. I seldom had to use any form of blind to get in close to the wedding feast of the grebe pair beneath a typical bridge girder. The coot bustled about and ruminated in her nest without paying any attention to my tripod in the reeds. She was used to people fishing in her territory. No telephoto lens was needed to get pictures of the swan pair which had built its nest right next to busy Strandvägen in Stockholm. They had grown accustomed to much weirder types than a considerate photographer. And who would wish to irritate citizens like those in their lovely town in the middle of breeding activities? I believe they are aware of their status.

In the hunt after subjects, it is important not to use too extreme a telephoto lens. Otherwise too much of the surroundings disappears in unsharpness, and the identifying frame is lost. The choice of f/stops is also important. The right f/stop and the correct lighting can bring out the main subject without the background being too fussy. But you have to know your city and what your camera is capable of. The more thorough your reconnaissance, the better your chances of obtaining successful results. You can spend a lot of early hours in your city before your picture is just right.

Not all animal photographers are as fortunate as my colleagues in the capital of Kenya, Nairobi. The borders of a national park extend right into the bustling city center. With

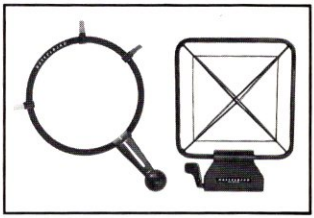
Photo: Sven Gillsäter



Animal life in the city should be experienced when the people are indoors and the traffic is light. Thus, a photographer has to like getting up early or getting to bed late. On the other hand, cameras don't usually bother animals in a city, which are used to changes in their surroundings.
Using a 150mm Sonnar lens, the swans at this nesting site and the city's silhouette were combined in the light from a setting sun.

Photo: Victor Hasselblad

Animal life on the savannah and at the water hole is most active in the early morning or late afternoon. The world's fastest animal, the cheetah, on the hunt, depicted with a shutter speed of 1/125 s. A frame viewfinder and a quick-focusing handle are useful aids in panned shots. (The closer you can get to the ground, the more neatly a subject is arrayed against the background.)



a little imagination you could picture a lion padding up to your camera and licking dust off the lens.
But that shot remains to be taken by some adventurous photographer really in search of something different.

On safari

Both amateur and professional photographers interested in wildlife make up a privileged class in our polluted, stressed world. The camera draws them out into the countryside, out to sea, to healthier surroundings, to foreign countries. The inaccessibility of some subjects and the special requirements involved reduce the pace of life to a healthy tranquility—simply because you can't force your pictures. Nature refuses to take direction!
Interest in wildlife photography is attracting an increasing number of adherents. This is not only true among hobbyists in rich societies. It is equally true for the under-industrialized countries of the world. The savannahs of East Africa would surely be lifeless today if the leaders of the new states had not come to realize that camera safaris bring in more money than gory trophy hunting.
New national parks and game preserves are being set aside every year. The conservation laws are becoming stricter, licensed hunting is being controlled and poachers are being kept in check with more efficient patrols and heavy punishment for violations.
An increasing number of Land Rovers are being filled with harmless photo bugs, rolling out into lion country, in among elephant herds, right up to the acacia groves of giraffes or down to the swampy ground of hippopotami.
How do you depict what's going on?
What equipment does the photographer need?
The fact that Africa's big and small game has learned that car and cargo are peaceful features of savannah life is quite remarkable. You take your pictures through the sliding windows or from the roof of 4-wheel drive vehicles. And you don't need any extraordinary equipment to get good results.
A Hasselblad with a 150mm or, preferable, 250mm telephoto lens is quite sufficient.
The feast of a pride of lions on a newly downed Thomson gazelle or a gnu herd's march toward choicer grazing grounds can easily be taken in close-up with your normal lens.
The most abundant picture harvest can be obtained at a water hole in the hours before sundown. And a reserve magazine or a Magazine 70 with the Hasselblad 500EL/M are real assets. Scenes change quickly and having to change film in the middle of an exciting sequence could really do damage to your nervous system! If your guide/chauffeur is the friendly type, he'll stay until there's not enough light for color and let the photographer empty his black-and-white magazine. You get astonishingly beautiful pictures in twilight—pictures with real action.
It's not advisable to leave the vehicle unless you're an experienced wildlife photographer who reacts quickly to warning signals or the fluttery fly-away of birds. Apparently peaceful terrain can surprise you with panicky, corned animals. And don't ignore the risk of snakes. It's forbidden to leave your vehicle in national parks and it's worthwhile listening to the game warden's tips and advice. His eyes are very well trained.
The really ambitious photographer carries along a bird tent and can sit in his blind for a few early morning hours and count on rich prey. At the Flamingo Lakes in the Rift Valley, an endless number of birds pass in revue, both domestic and migratory birds from Europe, and they scarcely display any suspicion of the shabrack with peep-holes among the papyrus. They're too busy looking for food, and fruitful studies of behavior can be registered by camera and eye, not to mention the multitude of sounds to be heard. Only the heat of the morning sun can drive you out of your hiding place which becomes like a Finnish steam bath at the stroke of twelve.
If you've read up on safaris thoroughly and browsed through the literature and picture books in your local library about the area you want to visit, you'll discover that you get just as much photographically out of a flock of weaver birds fiddling with their hanging nests in a low acacia as you get out of a rhinoceros standing still, glaring near-sightedly at the vehicle full of photographers.
In the tropics, film and camera require special care. Never leave the camera lying "exposed" in your car, since it can become unbearably hot in the middle of the day. During the dry season, there is an awful lot of dust

out on the savannah, and it is vitally important to protect your gear and keep lens surfaces as clean as possible. During the rainy season, relative humidity is so high that lens surfaces may acquire moldy growths and camera gear in general tends to get moldy very easily. Sealable plastic bags with a handfull of rice in a small inner bag reduce the risk of unpleasant surprises. At night, the bags and their contents should be put in drying cabinets in which a light bulb is kept burning to avoid moisture.

Modern films can stand exposure to a wide variety of climatic conditions, as long as the sealed wrapping is not opened. I don't recommend storage in refrigerators, since condensation easily forms on the film when it is taken out for use.

On the other hand, film, with the exception of black-and-white, is much more sensitive to climate after exposure. However, there's no cause for panic if the film is carefully stored for a few weeks. Air-tight bags or tins with silica gel or rice and storage in cool conditions usually provide a sufficient safety margin until the film can be developed. But send off your valuable rolls by air as soon as conditions permit.

During nearly fifteen years of film and photo journeys to most corners of the world, only one of my shipments of film was ever seriously damaged in transport or by the tropics. This shipment came from one of the worst climates in the world–the steamy jungles of Sumatra.

The wildlife photographer's equipment

In keeping with my financial resources, I did more work with a twin-lens reflex camera which, despite its extraordinary qualities, had a significant disadvantage for the wildlife photographer: you couldn't change lenses. Of course, you fooled around with an accessory which gave you some tele-effect but most birds managed to fly away before the camera was ready for use. The 35mm cameras with interchangeable lenses and single-lens reflex cameras with phlegmatic focal plane shutters frightened off game when gear failed to function. The 9×12 cm plate cameras and Graflexs with film packs were briefly regarded as ideal cameras. New photo gear was tested when there was time and money. But not much of it lasted the course.

When the sensational Hasselblad was put on the market in 1948, it was natural for me to switch to the apparently ingenious system, created by a photographer with the same interest in birds and animals as my own, conceived and continuously improved by a man who still produces bird photographs of international distinction: Victor Hasselblad.

In my opinion, the basic equipment for advanced wildlife photography should consist of a Hasselblad 500C/M with normal lens, magnifying hood and a few extra magazines. You should also have the Sonnar 150, Sonnar 250 and the Tele-Tessar 500mm lens.

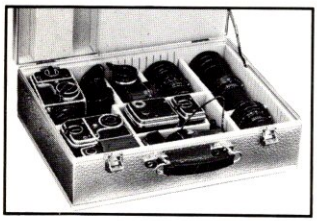
All lenses are made by Carl Zeiss, West Germany, and are equipped with Synchro-Compur shutters with speeds from 1–1/500 s. The gear should be supplemented by a pair of well-calibrated exposure meters, one in an accessible shirt pocket. The exposure reading should be checked out on every convenient occasion. The fact that I've come to prefer the larger camera and the $2^1/_4$"-square format instead of fast-handling 35mm cameras is because wildlife scenes change so fast and so unexpectedly that it is often difficult to center the subject in the middle of the smaller viewing field.

Anyone gripped by wildlife photography must be aware that familiarity with the camera, its functions, lenses and performance, the film and its tolerances should be self-evident so that every technical step becomes a reflex action. You can't begin fumbling with settings when an alligator opens its jaws a few paddle strokes from your canoe.

In addition to the basic equipment, the heavy carrying case can hold extension tubes, close-up lenses and a bellows for close-ups of flowers, insects and other small subjects. The only artificial light source is the ringlight, I feel that one should generally depict nature and animals with the natural light presented by the sky. Using advanced new films of various speeds and pushed development, I've never run across any impossible subjects.

The beaver's night labors in northern waters are no longer hopelessly inaccessible. Fast color films and the Midnight Sun make it impossible for him to hide his chopping of aspens from a photographer lurking nearby. Night workers like bats, owls, opossums and nocturnal koalas naturally require electronic flash. And in order to reach the colorful

Photo: Norman Myers



You can't direct a lioness with a cub in her mouth the way you instruct a mother with a baby on her arm. Every movement in the forest or on a plain would immediately arouse her predator instincts. So the camera has to be preset, lenses at the ready and film magazines well-filled. Tidyness and systematic storage in an aluminum case providing protection against dust, sand and water.

world of the coral reef, which has still to be discovered by many photographers, you need an underwater housing for your Hasselblad. You can best explore the lively, richly patterned continent which is the coral reef at ebb tide without any other equipment than a snorkel, face mask and a few rubber fins for faster swimming. A short-legged, steady tripod, one which can tolerate water of varying cleanliness and salinity, bumps, marshes, mud and rough care should be a piece of supplymentary equipment for wildlife photography.

The tent with peep-holes is a must for photography of both birds and mammals busy with e.g. carrion. The blind should cover about ten square feet of floor space and be about six feet high. It should be made of a tough material which does not silhouette the photographer inside in the morning sunlight and, most important of all, it should not flap in the breeze. Three sides have lens peepholes with zippers about 16 inches above the ground while another series of apertures with shutters are about 43 inches above the ground. The fourth (and back) side is equipped with a velcro selfclosing entry port.

The photographer should make his tent invisible with camouflage. The results can be regarded as especially good of you have difficulty finding the tent yourself.

With especially sensitive subjects in front of your lens, it is useful to have the camera blimped, i.e. sound-proofed. But by experience, I know you can go far by pretripping the mirror and, after the exposure, letting a quiet minute pass (if the subject permits) before the shutter is cocked and the film advanced. Few animals flee from the sound of a Hasselblad making an exposure.

Personally, I feel it is terrifically exciting to sit in a blind, sitting invisibly, avoiding being considered as an enemy, sitting in isolation, inhalate smells, listening to sounds, waiting for the prelude to a dream picture—and perhaps getting a few shots of the climax.

But at the same time, I'm just as interested in openly creeping around in the field with my harmless weapon and perhaps, more or less with instinctive actions, getting wildlife curious enough to come toward the photographer voluntarily to be convinced of his friendly intentions.

I can't recommend any of normal standards for a wildlife photographer's performance. Nor can I make any recommendations on how he should act in order to obtain historic photographs of both documentary and esthetic value, pictures with natural radiance. The wildlife photographer just has to create off the top of his head, in close collaboration with models he really can't depend on, direct, communicate with or give orders to.

But every one of us, ordinary amateurs interested in photography and professionals alike, are now able with our own eyes, our cameras and our heightened powers of observation to capture a new piece of reality for ourselves. Isn't this what photography is all about?

Photo: Sven Gillsäter

The beginner should practice on animals who have accepted Man as a neighbor. He soon learns how these animals react. This pair of collared flycatchers was photographed from the ideal bird tent (which doesn't flap in the wind) with a 350mm lens and an extension tube.

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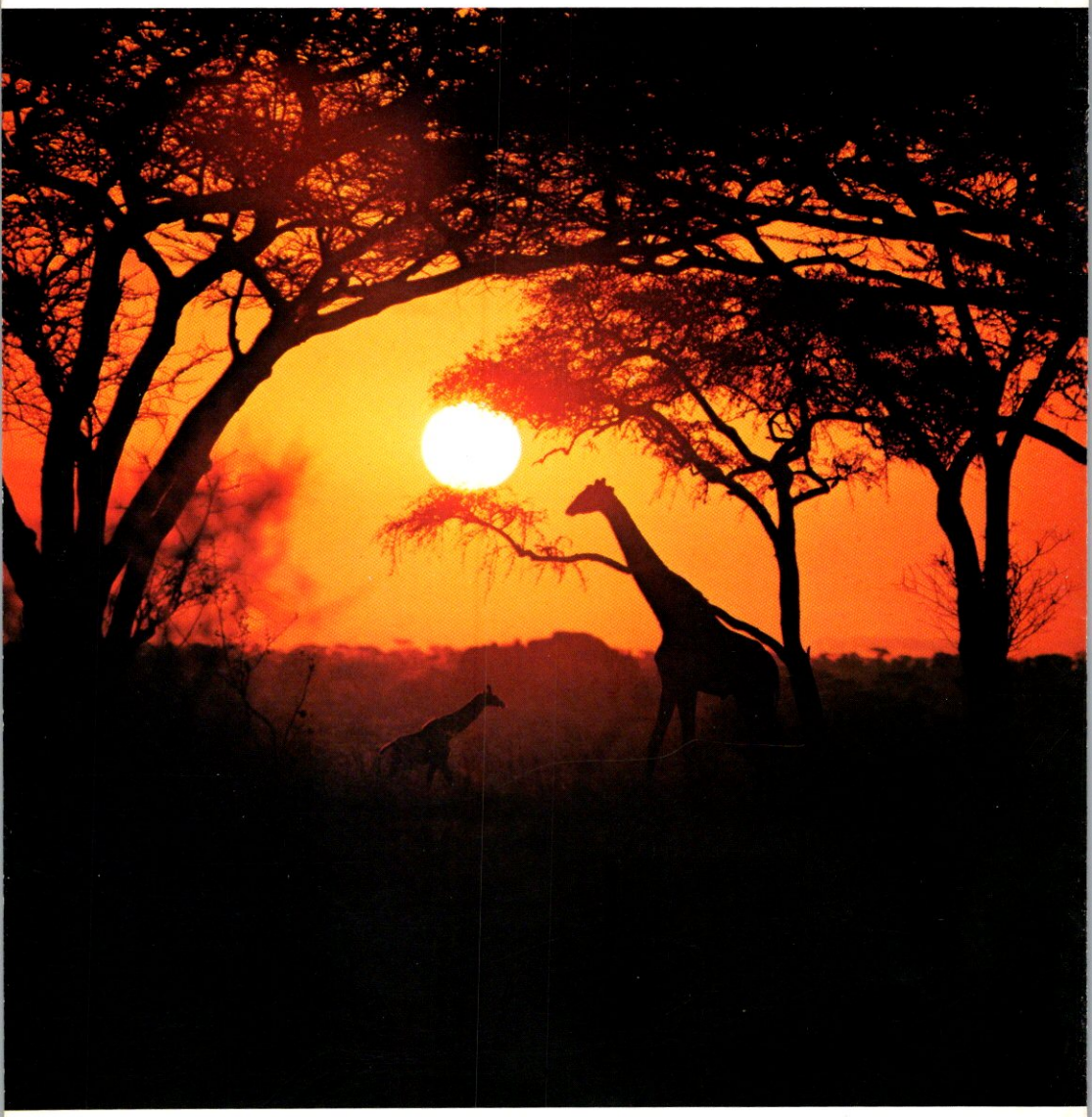

Photo: Horst Niesters GDT

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