An Expert Guide to Bird Photography

A professional guide to photographing garden, waders, wildfowl and birds in flight

Lesson 1
Course Notes

By David Tipling
Introduction

Hello my name is David Tipling and welcome to this first lesson on photographing garden birds. I am going to start by going through what I consider to be the ideal kit for bird photography. Let's start with the camera.

There is a bewildering choice and what you end up with will be dictated by how much you are willing to spend. Until fairly recently I would have suggested you needed a Digital Single Lens Reflex camera or DSLR for short. But there are an increasing number of more compact cameras coming on to the market some with interchangeable lenses that give reasonable telephoto reach.

Offerings from Sony, Panasonic, Olympus and both Canon and Nikon all offer potential for bird photography. So although a DSLR would still be my camera of choice one of these alternatives if it has a decent length lens will do the job.

David Tipling
Course Curriculum

Week One : Garden Birds

We first discuss the ideal all round equipment for photographing birds and take a brief look at the basics of exposure and choosing both appropriate shutter speeds and depth of field. We then look at attracting birds to a garden or indeed woodland feeding station. The best way of siting a bird table for light and backgrounds, concealment, hides or using a garden shed or your home as a hide and the props you need to make natural looking images. We examine how to encourage a bird on to a particular perch and then how to frame your subject. Finally we look at manipulating the light and techniques for making striking images that go beyond simple portraits.

Week Two : Wildfowl

Wildfowl the collective name for ducks, geese and swans are one of the most accessible and dynamic subjects on offer to the bird photographer. They generally inhabit open environments, are often very approachable or gather together outside the breeding season in spectacular flocks. This lesson will look at reading the signs these birds give off whether they are about to take flight or exhibit some other form of behaviour. We will look at how your angle of view can dramatically influence the feel of an image, and delve into how perspective can change depending on the focal length of lens used. Flocks can offer all sorts of creative opportunities from freezing action to experimenting with motion blur. Guidance will be given on seeking out great places to photograph wildfowl and being creative when your subject is tame.

Week Three : Waders

Many species of waders or shorebirds as they are commonly referred to in the US travel vast distances, migrating across oceans and continents to and from their breeding and wintering grounds. Some species can be approached by careful stalking, others require more planning with the provision of a hide. Various techniques for photographing waders will be discussed including tips on stalking and the pros and cons of wearing camouflage gear when doing so. Roosting flocks such as Knot can offer exciting opportunities and we look at using the landscape around our subject as a key feature of the composition. Finally we investigate how some images of waders can work best when converted to black and white.

Week Four : Birds in flight

Successful flight photography other than when an opportune moment presents itself, usually means being in the right place at the right time. Our final lesson examines how forward planning and anticipating an opportunity will reap rewards. We look at how depth of field and shutter speeds are crucial to securing a well executed image. Tips are given on which species offer the best flight opportunities, and we look at how birds can be manipulated to fly in front of the camera. This final lesson will also draw on much we have learnt in the previous three sessions that when used together help secure images of birds in flight, the most challenging aspect of bird photography.
Bird Photography: Photographing Garden Birds.

The advantage over a DSLR particularly from one of the main brands of either Nikon or Canon, is that the range of available lenses is great, and these companies manufacture great telephoto lenses offering excellent picture quality. Because many birds can be tough to get close too then a telephoto lens of at least 300 mm is desirable and I suggest the ideal is 500 mm. But remember even with a 500 mm lens to get a decent sized image of a large bird such as a swan or heron you still need to be within 30-40 feet.

The DSLR you choose can help. DSLR’s sensors come as either full frame in other words the picture covers the same area as a 35 mm piece of film or are cropped, known as cropped sensors these typically range from being cropped from 1.3 to 1.6 x.

So if you have a cropped sensor of 1.5 x then that makes your 500 mm lens have the equivalent focal length of 750 mm which makes a big difference when photographing small birds. This is the equivalent of a 15 x magnification.

If you can afford a decent quality lens then these will work well with teleconverters. Converters as they are commonly referred as by photographers are optics that fit between the camera and lens and normally come in two magnifications 1.4 and 2 x.

The 1.4 generally give the best optical quality but the converter you use should be of the same brand as your lens so they are optically matched. Those from Nikon and Canon are outstanding and you notice little if any fall off in quality.
They do slow the autofocus a little. Plus you lose a stop of light with a 1.4 x so your f4 lens becomes a f5.6 and with a 2 x you lose two stops. The big plus of course is that they give you more reach. I use a 1.4 x teleconverter regularly on my 500 mm lens.

The last essential piece of kit for bird photography is a support for your camera and lens. Although hand holding can be an option if you are sitting in a hide or concealed some other way, you need to avoid too much camera movement so as not to scare your subject and so a tripod is essential.

There is a big range from which to choose but you need to ensure it is not too heavy, you don’t want it to become a real burden when walking with it, but it needs to be sturdy enough to eliminate camera shake, this is the blurring of a picture from excessive movement and vibration.

Typically many tripods are too flimsy for holding a big telephoto lens, sturdiness is essential. Go too for one that has no central column and has legs that can splay out at right angles, if you can afford it, this will allow you to use it for shooting low a technique I will come to later. Finally, you need a tripod head. As long as you have something that is big enough to take the weight of your telephoto lens then this is down to personal choice.

While many landscape photographers swear by the ball and socket head, most wildlife photographers go for the gimbal style. The Wimberley is the best known. They are designed to take heavy long lenses and you can control the tension and balance so that your long lens becomes almost weightless in your hand as you move it around and up and down.

They are expensive but a good investment. Of course if you are not using a big heavy telephoto but one of the lighter alternatives then a ball and socket or simple pan and tilt head will suffice.

I photograph a lot from my car too and for this look at getting a simple bean bag or window mount, though the former will do the job for far less outlay.

Before we move on I want to cover briefly technique for achieving the correct exposure, choice of shutter speed and how controlling depth of field will affect how your image looks.
Correct exposure is affected by which shutter speed, aperture and sensor speed you choose. But what is a correct exposure? Simply it is recording the bird in the way that you want ensuring detail is retained in the brightest and darkest areas. Photographers talk in stops when discussing exposure, a stop describes an increment whether increasing or decreasing the amount of light coming through a lens and hitting your cameras sensor. The apertures such as f4, f5.6 and so on, marked on a lens are f stops.

A typical telephoto lens may range from f4 to f22. When the lens aperture is wide open allowing the maximum amount of light in at f4 we refer to the lens being wide open. If we want to decrease the amount of light coming through the lens we use the term stopping down. So I might say I am going to stop the lens down from f4 to f8. Every time you move one increment up the scale you halve the amount of light through the lens aperture. By stopping the lens down I am not only decreasing the amount of light coming through to the sensor but I am also having the effect of increasing the depth of field in the picture. Depth of field is the area in sharp focus in a picture from front to back. So at f4 the depth of field is very shallow conversely at f22 we would have a large depth of field with the background to the subject likely to be in reasonable focus.

The shutter in your camera normally opens for a fraction of a second and as with f-stops it either halves or doubles the amount of light hitting your cameras sensor. However most modern cameras allow you to move in 1/3 increments to whole stops for even finer control.
Sensor speed or ISO as it is normally referred to, is the final piece in the exposure jigsaw. Typical ISO values range from 100 to 6400 or higher. The higher the rating the more sensitive the sensor is to light so at 6400 you can achieve an exposure in poor light conditions or with higher shutter speeds and smaller apertures.

The ISO you choose acts as a basis for your exposure. But the higher ISO rating you choose the more likely you are to see more muted colours and signal noise, a graininess. So it is better to use as low an ISO as you can dependent of course on the light and the shutter speed and aperture you wish to use. To capture this Great Tit leaving a nest box I had to use a shutter speed of 1/2000 sec with a depth of field of f 7.1 which meant with limited light to achieve these values I needed a high ISO of 3200.

So once your ISO is set the shutter speed and aperture you use are linked. Alter the value of one and the other has to be changed to provide a correct exposure. So let’s take an example.
We decide the correct exposure for the bird you want to photograph is 1/500 sec shutter speed at an aperture of f 4. But you decide you need a bit more depth of field so you decrease (remember you are making the aperture smaller) by 1 stop to f 5.6. By doing this you have decreased the amount of light hitting the sensor by a stop in effect halving the amount of light, so if you don’t now lower your shutter speed by one stop to 1/250 sec your resulting image will be under exposed, it will be too dark. Hence the correct exposure would now be 1/250 sec at f 5.6.

Finally don’t just rely on looking at the image presented on the screen of your camera for deciding whether the exposure is good. You should always check your histogram. This shows the distribution of pixels the tiny components of your picture from dark on the left to light on the right, this is the tonal range.

To make sure you retain detail in any white parts of a birds plumage make sure there are no pixels or at least very few going off the right hand end and conversely with blacks to retain detail make sure there are not lots of pixels going off the left hand end of your histogram, if pixels are being lost off either end this means tonal information is being lost which might mean feather detail in the white or back parts of the birds plumage. Now let’s get on to photographing the birds.

Photographing birds in your garden or indeed local park offers a great grounding in bird photography. It allows you to experiment with compositions and for experienced photographers offers possibilities to get really creative. The first job is to lure them to you and to do this you need to put food and or water out. In summer when there is a lot of natural food around then water works best as a lure as your local birds need to drink and bathe daily. In winter putting bird food out should attract plenty of activity.
You may have birds coming in to your garden that are tame but chances are there will be plenty coming that are not and so you need to decide how you are going to conceal yourself. You might have a garden shed with a window that opens or a door from which you can shoot.

By draping some material ideally camouflage netting which you can buy from ex army surplus stores or easily over the internet across the window or door.

Of course you could use an old blanket as concealment but the advantage with camo nets is that you have some vision through them so it is easier to see what is going on. You might be able to shoot from your kitchen window or even sit in your car on the drive.

There is however no substitute for using a purpose built hide as shown here. This allows you to decide exactly where you will sit.

There are two key aspects to be aware of when placing your hide, what will be the background to your picture and how will the birds be lit so where does the sun rise and set, and at what time of day will you be photographing. These are key to planning the perfect set up.
Ideally you want a position where the sun will be behind you for the part of the day you will be photographing in and mornings are normally best for most bird activity.

After roosting overnight particularly when the weather is cold, birds are very hungry first thing and there will be a lot of activity for the first two to three hours after sunrise. I try and photograph during this period as during afternoons bird visits can slow down giving fewer opportunities.

A good clean background to your image is preferred over something that might be both messy and distracting. The art of a good background is to keep it looking natural and to ensure there are no out of focus objects that might lead your eye away from the image of the bird.

The further your subject is from any background whether it be the garden fence or a bush the easier it will be to control how it looks.

Of course the other variables of controlling backgrounds are the length of lens you are using, the longer the lens the easier it is to blur everything behind your subject and of course the depth of field you use.

Too shallow depth of field and your bird and perch might not be in full focus, too much depth of field and a messy background can ruin the image so this is a balancing act.

Here my background was quite a dapper winter brown and I wanted to shoot with a green background to bring a bit of colour to the picture. So I have cut some ivy and used branches from our discarded Christmas tree to create a green background.
You can paint a board green or whatever colour you wish or indeed a sheet or other material and place it as your backdrop. Whatever you do make sure you keep it looking as natural as possible.

Let’s deal first with garden birds coming to food. It is a good idea to use bird feeders rather than just putting food on the ground. Bird feeders get the birds used to perching in a particular place, the birds are less susceptible to being taken by a cat and many tree loving species will be more comfortable perched off the ground, of course there are exceptions such as attracting thrushes to apples on the ground.

Which foods you put out will dictate which species you attract. For example Niger seed is loved by Goldfinches but other species are not so keen, conversely tits such as Great and Blue tits love suet and peanuts while Chaffinches and Bramblings might prefer mixed seed or sunflower seeds.
So the bigger variety of food you put out the more likely you are of attracting a good range of species to photograph. In my experience the more feeders you have out the more birds you will have coming at any one time.

This is good because when you come to photograph, by removing all the feeders except for one you create a queuing system and your subjects are then more likely to use the perches on offer.

Choice of perch is important as this will be an aesthetic addition to your image. An ugly inappropriate perch and the shot won't look good however good a pose your bird is in.

I spend time looking for good perches and it can be fun. I aim to place perches that are appropriate to the subject. So for example in this image of a Long-tailed Tit he is perched on something that is quite dainty and does not look too big.

In this image of a Jay on a branch the perch is much more appropriate for the size of the bird. A tiny Long-tailed Tit would look OK on a bigger perch like this but it would not work as well as the previous picture.

I like to keep my perches fairly simple and they need to be fairly uncluttered to ensure birds readily land on them, and by that I mean not too many leaves or thorns for example.

You will need to experiment with this a bit and you will soon see how individual birds when arriving at the feeder use the same bit of your perch. If they are avoiding it altogether then something is wrong and you might need to change it.
Attaching a perch can be an art in itself. For an upright perch you can use a cane and tape the perch to the top. If wanting it horizontal try using clips and brackets as shown in this example here. Garden centres are great places to wander round and find useful props.

You need to ensure when photographing birds on your perch that none of the peripheral stuff used to hold it in place is showing in the picture. Of course you can simply place food near growing plants, you might have an apple tree or other suitable bush or tree.
Be seasonal with your perch. In autumn experiment with autumn leaves such as this. In autumn a sprig of holly for a Robin or that clichéd shot of a Robin on a fork handle are all worth trying.

In early spring try catkins or blossom, apple blossom in particular can really set a picture off.

Once your perch is chosen it needs to be placed in a position to lure birds on to it.

Your garden birds will tend to like to loiter in a bit of cover before flying to the feeder so placing your perch close to your feeder, just a few inches away but in line with the favoured bush or tree from which most fly will ensure they meet your perch first, as in this photo here.

You can place a perch over a low bird table so they hop on to this before going on to the bird table. again experiment moving it around to see what works best for your given situation.
When your bird is perched think about how you will compose the image. It is often desirable to have your subject off centre. If placed in the middle of the frame if the bird is looking to the left for example your eye will be drawn to the space the bird is looking in to. Therefore the space on the right will be dead space. Here is a picture shot in this way.

Now of course you can recompose by cropping in the computer which is what I have done here. This image feels better balanced and is far more interesting. I have composed the crop so the subject is off centre and looking into space.

Of course rules are there to be broken and this is just one compositional technique so experiment yourself with placing the bird in different parts of the frame.

In this image I have used a garden tool a fork as my perch. Robins find mealworms irresistible and so I placed a small container full of them just below the fork.
Each time the Robin visited the food he landed on the handle. I’ve turned the camera round and shot this vertically for a more pleasing composition. The bonus in this shot is the snow.

Snow adds an extra dimension to winter bird photography and can be used to great effect in making what might be an ordinary picture really stand out. If you know snow is coming then leave out in situ suitable perches so they get covered naturally. The snow acts like a giant reflector too illuminating birds plumage allowing feather detail to show up really well.

Once the ground is covered birds such as thrushes find it tough to feed and so resort more to visiting trees and bushes laden with berries. This Blackbird was photographed during a period of heavy falling snow on a bush full of berries. I have placed the bird on the extreme right of the picture as he was looking to the left into space and I wanted to help illustrate the the snow covered branch and berries.
Here we have another shot of a Blackbird this time on a frost covered lawn. For this image I wanted to illustrate the fact the bird was in a garden. So I baited with some apples and placed this watering can near and behind the food. I was then able to photograph the bird with the watering can out of focus but clearly visible so giving a sense of the garden environment.

As with the Blackbird I’ve got down low to take this next image. If you can get on the birds level so in this case I was lying on the ground then the resulting image can give a far more intimate feel. You are at the birds level and the picture reflects this.

If I had stood up and shot this image, there would have been a more detached feel to the picture. I photographed this Robin to give a feel I was in the grass with him.

Note I have used a very shallow depth of field of f 4 in this image to throw out of focus the grass in the foreground and background. A larger depth of field would have created partly in focus grass that may have drawn the eye away from our main subject.
I have talked of attracting birds to your garden with food but the other vital need of a bird is water. A bird bath, an upturned dustbin lid is ideal, should attract plenty of visitors throughout the year. When bathing and drinking small birds are vulnerable to predators such as cats or a marauding Sparrowhawk so if you place your bath near cover it is likely to be more popular.

You can place a nice perch near the bath as one way of photographing them but because a bird bathing is a dynamic event full of photographic potential you might want to set up a drinking pool that is photogenic.

By digging a shallow hole in the ground and lining it with pond liner or indeed sinking a dustbin lid into the ground you can then build a set that resembles a natural woodland pool. Ensure the liner or receptacle you are using becomes covered around its edge by soil then you can dress the sides perhaps with some moss a log or two, leaves, you get the idea, you want to make it look as natural as possible.

I enjoy capturing reflections as here in this image. Such a setup can allow you to experiment with composition and make some really eye catching images.

When birds come to bathe water flies. You might want to freeze the action and for that you will need a shutter speed of at least 1/1000 sec. This Blackbird shaking his head was shot at 1/1250 sec and you can see in the image the water drops are not completely frozen even at this speed.
Try shooting slow shutter speeds too for more abstract dreamy looking shots, its good to experiment. Note too in this image how I have framed the bird. 

You don't always need the whole bird in the picture, I wanted emphasize the bathing and the water so I have made this the image and not worried about including the Blackbirds body, if I had done so the impact might have been lost. 

Once you have mastered capturing good portraits of your garden visitors you might want to think about pushing your creativity a little. In this image I’ve shot not with the light behind me in the conventional way but into the light. By doing so you start to create more of an atmosphere.

To shoot in this way effectively either photograph early when the sun is rising or late when the sun is starting to dip for the best effect. 

Don't shy away from photographing birds coming on to a feeder. There is often plenty of action with birds coming and going and once again here I have shot into the light.

This time the wings of the birds are illuminated while the background a hedge is in shadow and nicely out of focus. Getting the correct exposure for this type of shot can take a little experimenting so keep looking on the back of your camera until you are capturing the effect you desire.

If your garden birds are relatively tame try using a wide angle. This Robin was captured with a 24 mm lens as he flew on to the feeder, I used this angle to highlight the bird and create more interest.
in the image. You need relatively tame birds to shoot in this way but if you feed regularly chances are some of your garden visitors will become very approachable.

And here I have used a remote control, most cameras will take a remote control trigger, this one was electronic. I've got in very close with a wide angle 20 mm lens to slightly distort the size of the bird and the feeder, all the time I am looking for a shot with impact.

When shooting in this way because the camera is very close to the birds you might need to dampen the sound of the cameras shutter by wrapping around it or if you have a quiet mode on your camera this should do the trick.

The garden is in effect your garden film set so you can come up with all sorts of ideas to create interesting images. Here I have got a couple of crates of apples and placed them as if stacked in an orchard. Starlings and thrushes love apples and it did not take long for them to discover this free food source. Note I have placed the Starling on the right side of the frame looking in to space and the apples.

Continuing this theme I wanted to replicate a garden environment to shoot a bird on a feeder. I used a 90 mm lens with a bulb remote release placing the feeder in the middle of the frame, I then balanced the composition with a watering can and wheelbarrow on either side for that garden feel.
In spring bird song is all around us yet photographing a singing bird can be a challenge. However territorial birds will have favoured song perches so it is worth keeping an eye out for these. Every evening one spring one of my local Blackbirds would sing from my neighbours television aerial. It was in such a position that I was able to silhouette him to good effect.

This Dunnock however was far more of a challenge, singing at the end of our garden it had a favoured perch but would not tolerate me quietly waiting in the open for him to perform so a hide was needed which I introduced over a couple of days. First erecting it down by the house then slowly over the two days moving it a few metres at a time until it was in position. This allowed this shy bird to become acclimatized to the hide. If I had risked putting the hide up in the perfect spot in one go it may have become nervous of the intrusion and changed song perches.

I’ll leave you with one of my favorite garden bird images a Mistle Thrush feeding on berries in the snow. I hope I have given you plenty of ideas on which to experiment and be inspired.