

The Essential Guide To

Capturing Birds In Flight

Written by Nina Bailey



Especially written for Canon EOS cameras



One of my favourite areas of photography is photographing wildlife, I have travelled all over the world to see in this book and have been privileged to be able to shoot up close and personal to many of the subjects, such as Antarctica and Galápagos. Within wildlife photography, shooting birds in flight has to be one of the most rewarding areas.

It's an area of photography that can be equally enjoyed close to home and we have a great selection of birds that can be photographed with relative ease around the UK, especially in some of the stunning bird reserves run by the RSPB and Wildlife Trusts organisations. We are also lucky enough to have some great bird of prey centres where the birds are flown and this allows us to shoot much closer than in the wild.

I originally produced this book in 2014, just before the EOS 7D Mark II was launched and there was only a limited range of models available that offered the focusing performance that was necessary. Just three short years later and we now have introductory models that feature 45 AF points, have compatibility to use extenders that take the widest aperture of the lens down to f8 on them, both features that only three years ago was unimaginable on the smaller, lighter and more affordable models. So this is now an area of photography that can be enjoyed by all photographers.

The equipment required can be fairly basic although to get some of the shots I am showing in this book you do need lenses of 300mm and longer. Often for shooting birds in flight the lenses may well be more basic than used for static birds. As we have to hold and control the lens, size and weight become very important things to consider when selecting lenses.

It's an area of photography that can be enjoyed all year round, and in winter some of our bird reserves can be spectacular with the winter visitors to our shores. The image to the right was taken in April at the RSPB's spectacular Bempton Cliffs in Yorkshire, where it is easy to get great shots of the gannets, puffins and several other species of sea bird. The cover shot was taken on a winters day at the WWTs centre at Slimbridge.

My aim is to give you a good understanding of what you need to grasp to get some great images of birds in flight and what settings are needed. I have also looked at the creative side of this type of photography looking at framing, lighting and seeing the best images to take in addition to the more factual approaches.

Hopefully the images and explanations will inspire you to go out and get the very best images of the subjects that are all around us.





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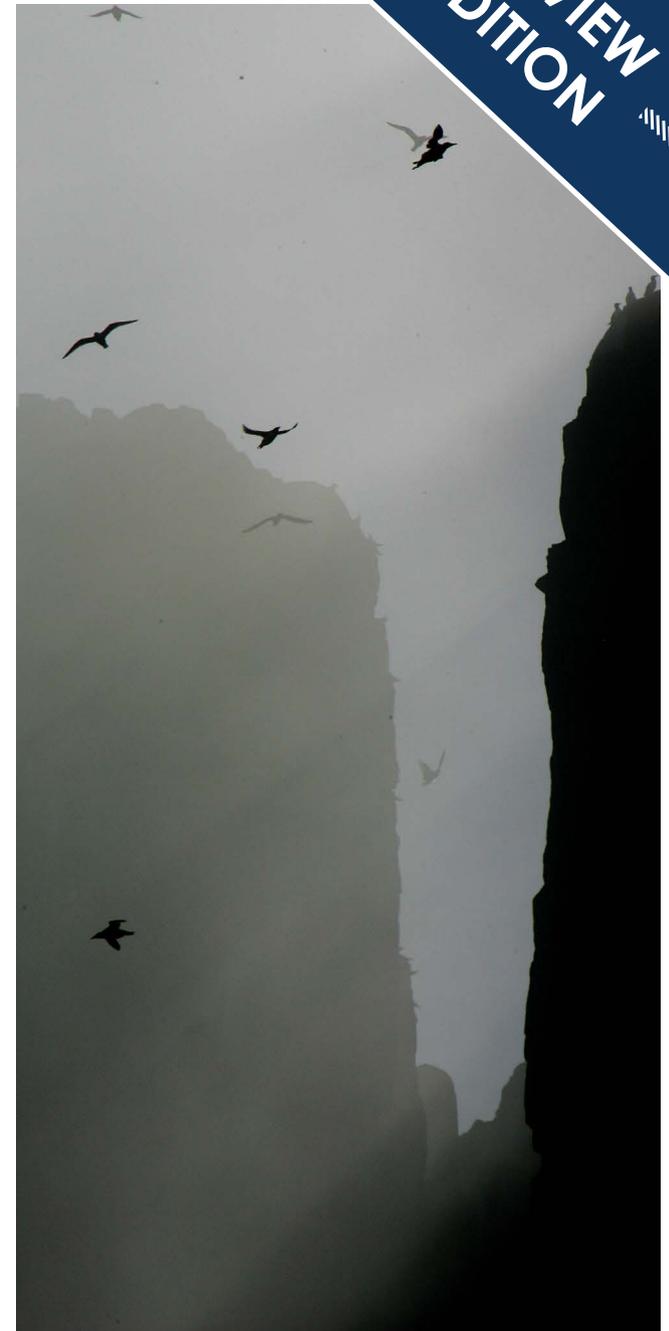
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Introduction

Introduction

Over the years this is an area of photography that I have been asked about a lot. It is an area that requires a very good understanding of the basics of photography, as the settings we need to use can be very challenging to get under some of the light levels we shoot in.

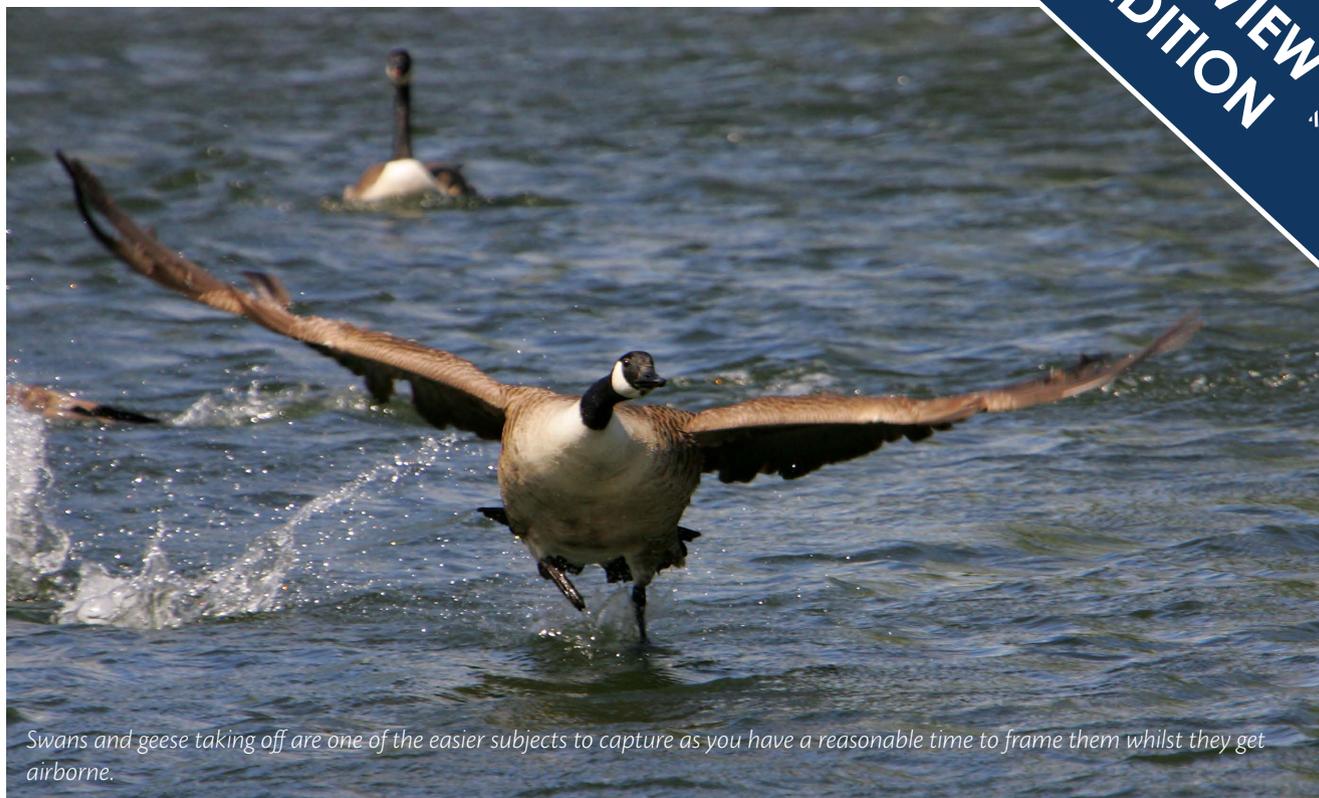
It is also an area that understanding the camera settings and knowing how to set the camera up for specific types of action, is very important as you have little time to respond and often do not get a second chance to take the image.

In most areas of photography, I would normally say that the camera you use will make little or no difference to the images that you take. Unfortunately in this area of photography the camera that you use will make a big difference to the success of the results that you get.

The higher level models will focus faster, though the very latest introductory and mid range models such as the EOS 80D, 77D and 800D now offer a focusing system that will cope very well photographing birds in flight. Though it has to be said that the higher level models such as the EOS 5D Mark IV, 7D Mark II and 1DX series models have more configurable options and so therefore can be better for this type of photography, if you are planning to make this your specialised field.

Therefore I am going to take a more in depth look at the cameras and explain why some will work better than others and what to look for when selecting a camera for this type of photography.

The lens choice is also important, throughout this



Swans and geese taking off are one of the easier subjects to capture as you have a reasonable time to frame them whilst they get airborne.

book I have assumed that the photography will be done handheld, the sort of tripod head needed to follow action and the tripod to put it on is beyond the reach of all but the most serious of professional photographers and I find handheld shooting allows you to respond much quicker.

The lenses you choose for this type of photography need to have quick focusing, yet still be small enough to handle and follow the bird with.

The subject distance is going to vary considerably making zoom lenses a more practical all round choice than the fixed focal length lenses that are often used

for more static bird images.

I am also going to look at the use of extenders and how they affect this type of photography. Although appearing to be a practical way of extending the focal length of the lens, the compatibility issues often outweigh their benefit when shooting moving subjects.

This is a challenging area of photography and one that you have to shoot many images in order to get the few stunning ones - for every one of the images of mine you see in this book, there will be literally hundreds which got deleted along the way.

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Camera choice

Why is the camera choice so crucial?

In most areas of photography the camera choice is not really that crucial, the lenses often make far more difference to the quality of image you produce than the camera body choice.

Once we start photographing anything moving the camera choice starts to become increasingly important. The faster the subject moves the more important the camera selection becomes.

Going back a few years this made this type of photography difficult for the amateur photographer as the only bodies that were really suited to the task were the professional 1D series models.

Today with advances in the model range we now have a much wider range of models to choose from. The ideal models are cameras like the 1DX, 1DX Mark II and 5D Mark IV or III, and 7D Mark II which feature 61 or 65 AF points and a very wide range of configuration options for how the focusing works in the servo modes.

Recently we have seen the introduction of models such as the EOS 6D Mark II, 80D, 77D and 800D which all feature 45 AF points and have enough configuration options to make them work well for this type of photography.

The older models such as the EOS 7D and 70D models, which have 19 AF points will work, though the focusing performance of the new models far surpasses them for this type of shooting.

Some of the other models that feature 9 or 11 focusing points can often struggle to maintain the focus on the subject and therefore are not so suitable for this type of photography.



Why do we need so many focusing points?

A question I get asked a lot, especially when running one of the EOS Training Academy's Understanding Focusing events is what is the point of so many focusing points?

When we start shooting things that are moving fast, the camera has very little time to focus, and remember that it is constantly focusing to keep our subject sharp. As the subject may well be changing position in the viewfinder a lot it can be difficult to keep a small focusing area over the subject. A very common error I see a lot when training, is photographers trying to use a single focusing point to focus on a bird in flight. To understand why this will cause a problem you need to understand a little about how an EOS camera's focusing actually works.

The actual way that an EOS camera autofocuses is very complex, but there is a way of explaining it that is easy to understand if you have used manual focus cameras in the past. If you haven't then hopefully you will get the gist of it from the illustrations above.

Many manual focus cameras used to have a focusing aid in the centre of the camera's viewfinder that was called a split image focusing device. If the image was out of focus the main part of the image looked blurred but you could see the subject under the split image device and the more the split was between the top and bottom halves then the more out of focus the image was. To make the image sharp you simply rotated the lens until the two halves of the split lined up perfectly and the image would be in focus.

The split image device only covered a small part of the view finder area, the images above have had the

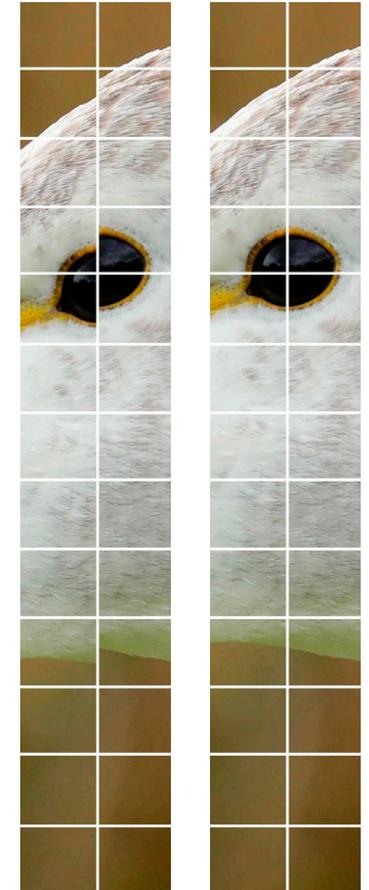


actual split areas made larger to allow you to see easier what is going on. You had to position the split image over an area of the subject that had clearly defined detail (contrast), such as the eye of the bird in it to make it easy to see what was going on.

The top left image is what you would see when the image was out of focus and the top right image shows what you would see if it was in focus.

When Canon developed the EOS system they developed an electronic system that worked in much the same way. The split image was replaced with an array (row) of electronic sensors that could see the detail or contrast as it is now called and if the subject was in focus the contrast would line up and out of focus they would be split. The pair of images to the right shows a basic illustration of how this works. In reality the focusing sensors have hundreds of thousands of sensors. Electronically the camera measures how much the image is out of focus and then rotates the lens to bring the subject into focus. Each focusing point is actually smaller than the split image on a traditional manual focus camera. So it is easy for a single focusing point to struggle if it is not placed over an area with detail. It's just like taking a manual focusing camera and blanking out everything in the viewfinder and with just the split image exposed expecting the photographer to focus on a pure white wall - it's impossible to do.

So the camera needs to see contrast and will often need the focusing point positioned over an area with good contrast or with action to have multiple



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Why do we need so many focusing points?

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points active to find where the subject is and focus on the areas that it can see. Remember you can see the whole of the viewfinder area, whilst the camera can only use the sensors that are active at the time.

Once we start to shoot birds in flight, we have to remember that the camera can only actually focus where the focusing points are active and so trying to shoot with a single AF point can be almost impossible as much of the time the focusing area can be over a subject that has very little detail or contrast for it to see.

The more focusing points that there are within the central area, the more chance the camera has of seeing something within the subject that it can identify and focus upon. This makes focusing on fast

moving subject easier and more reliable.

The ability on the latest models featuring 45, 61 or 65 AF points, to narrow the focusing points down to a smaller area, still gives a good number of focusing points but avoids the focusing system starting to look at things that are in the background of the shot and therefore provides more reliable focusing and tracking on the subject.

We can see in the illustration above, how much more the 61 point AF system (left) can see when compared with the more standard 9 point (right) AF system.

Of course the bird that you are photographing can also make a big difference to how easy the focusing will be. Birds with good amounts of feathers or

markings will be easier to focus upon than subjects that are a single plain dark shade, where it is difficult to see any details and there is only the outline of the bird for the camera to focus upon.

As we move up through the camera range the number of focusing points that the cameras offer increases.

The very basic models, and a lot of the older models, only offer 9 AF points which as we start to need to focus on something that is moving at high speed, the big gaps between where the focusing points are located can potentially give us a lot of problems. There is not always a lot of detail for the camera to see on the bird and often the camera has to focus on the edges and more focusing points will give more

Why do we need so many focusing points?

places for the camera to look to see something that it can focus upon.

A few years ago we started to see 19 AF points on the mid range models. These are all clustered in the central part of the cameras viewfinder and this allows the camera to focus in more places and therefore makes it easier for the camera to pick up and follow a bird in flight. At the time this was a good improvement on the 9 AF points, but when you shoot with the cameras with 45 or more AF points you quickly start to see why the more points you have the better the focusing becomes.

However it is not just how many focusing points the camera has that dictates the focusing speed of the camera, it is also how the camera processes the focusing data and how configurable the focusing is designed to be that makes the difference between the models.

A good indicator of the cameras focusing performance is the drive speed that it is designed to work at. A camera that only shoots at 3 frames per second really is indicating that is the fastest that the camera's focusing system can cope with. There is no point making the camera shoot at 6 frames per second if all the shots will be out of focus.

However, the level the model is in the EOS range also will indicate the camera focusing performance. The nearer to the top it is, the better you can assume that it's focusing system will be. Some of the high pixel count models such as the 5DS and 5DSR have relatively slow 5 frames per second shooting rate, caused by the amount of data that a 50 mega pixel camera creates, but have the same focusing performance as a 5D Mark III which shoots at 6FPS or



a 7D Mark II which shoots at 10 FPS.

With some of the latest introductions it is possible to get some great images without the need to go to the very highest level models. The image above was taken on the EOS 77D with the EF 100-400mm f4.5-5.6L IS II USM lens fitted. Although here I am talking about the camera bodies, the lens used on the front of the camera is also important.

One of the good things about the newer more affordable models is that you can use the money you

save to invest in the lenses you are going to need for this type of photography.

One of the things photographers often fail to realise is the focusing speed you get is a combination of the body and the lens. A fast focusing lens will make a slower body work better. Equally a slow focusing lens, can slow the performance of a higher level body down below the speed of a more basic one with a fast lens fitted. This is one area of photography where the investment in good lenses really pays off.

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About ISO range

One of the areas that has seen a radical improvement over the last 5 years is the range of ISO settings available on the cameras for us to use.

The reason why we are seeing this increased range is that the noise reduction software on the cameras has got so much better resulting in a much wider range of ISO settings that are either noise free or very low noise levels. This means that Canon give us a wider range as they are very good quality and very usable for this type of photography.

Yet all too often when I am running events I see photographers trying to stay below 400 ISO as they believe that's as high as they should go, as that was what worked when using film. So reality time - digital is different from film. Film was difficult to make at a high ISO and retain the quality, so was digital in the early days. But nearly 20 years later, as with all things it has got much better and now the higher settings are much better quality.

The real indicator of the quality is how high the ISO range on a camera will go. The cameras normally have a standard range and then can use ISO expansion taking you up one or two stops higher. Ignore the expanded settings as they are there for when you are desperate. I normally reckon that the quality is very good up to 2-3 stops lower than the maximum that the camera goes up to. So if you use an older model that natively only goes up to 6400, it should be really good up to 1600 ISO. The new full frame models that go up to 32000 ISO are really good up to about 12800 ISO. At ISO settings below this they give excellent quality.

There is also a reality with this type of photography



which is that there are specific settings that need to be used. The image above needed to be shot at 1/2000th to ensure that the movement was frozen, otherwise subject movement would give a blurred image. I like to shoot at f8 or f11 as in the shot above as you cannot control where the focus is actually going to work when using all the AF points, which you need to get the camera to consistently hold its focusing, if not you get blurred images, it is also where the lens I use gives the best resolution and therefore the sharpest image. The ISO to get the light to use

those settings needed to be 1600 ISO and that was on a day with very good lighting.

The reality of this shot, is that if I had chosen to shoot at a much lower ISO I would not have got the settings I needed to get a sharp image, even though technically the ISO might have given me a slightly better quality image, but that's no good if it is not sharp due to subject blur, or not sharp due to the focusing failing or lack of sharpness through shooting at the widest aperture.

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Unravelling the model range

One of the things that comes across, especially on practical courses where there is a lot more discussion is that many photographers are very confused by the Canon range.

The chart to the right shows the cameras that have featured in the Canon range in the last 5 years as current models, though of course 5 years ago there may have been some older models being sold off but not actually in current production at the time. At the top are the professional models gradually working down to the entry level models at the bottom.

It's often commented that Canon keep bringing out new models, however, with so many market segments, there are going to always be a new model somewhere in the range appearing.

The professional and semi professional models are normally around as current models for about 4 to 5 years. The 1.6x enthusiast models tend to change every 2 or 3 years, though the full frame enthusiast models are around longer than this.

The introductory models tend to be current models for about two years, though a new one appears almost every year, with the old one staying as a more "affordable" model for at least another year.

The entry level models tend to have a longer life, 2 to 4 years is not unusual, and normally have far more basic features to keep the price point very low.

I have not included the mirrorless models in this chart as they really struggle to focus on fast moving subjects and so I do not consider them suitable for this type of photography, even though the larger lenses can be used on them.

Professional - Full frame models

EOS 1DX, 1DX Mark II

61 AF points, Super fast focusing and high drive speeds aimed at professional users - require L series lenses to get their ultimate focusing performance

Semi Professional - sometimes called Prosumer - Full frame models

EOS 5D Mark III, EOS 5D Mark IV - 61 AF points, high performance focusing, good all round models
EOS 5DS, 5DSR - 61 AF points, high pixel count models, designed primarily for tripod and studio use
Both types above will give the ultimate performance when used with f2.8 lenses

Semi Professional - sometimes called Prosumer - APS-C or 1.6x models

7D Mark II - 65 AF points, high performance focusing, with smaller sensor giving better reach with lenses
The 7D Mark II was designed with the more affordable lenses in mind and gives excellent focusing performance with f5.6 lenses, slightly boosted if f2.8 lenses are used
EOS 7D - earlier version with 19 AF points, good focusing system

Enthusiast models - APS-C or 1.6x models

80D - 45 AF points, with great AF system and good configuration
77D - 45 AF points, lightweight and compact body with good AF system but less configuration
70D - Older version with 19 AF points, with good AF system with good configuration

Enthusiast models - Full Frame models

6D - 11 AF points, Good in low light and OK if subjects is filling the frame though will struggle with high speed action.
6D Mark II - 45 AF points with good AF system

Introductory models - APS-C or 1.6x models

800D - 45 AF points with good AF system
750D, 760D - Older versions with 19 AF points, with good AF system
700D, 650D - Older versions with 9 AF points, will struggle with fast action

Entry level models - APS-C or 1.6x models

1200D, 1300D - 9 AF points with basic AF system
100D - Super compact model with 9 AF points with basic AF system
200D - Super compact model with 9 AF points with basic AF system

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Why is the drive speed important

There are several things that are important to look at on the camera when selecting what is best for this type of photography.

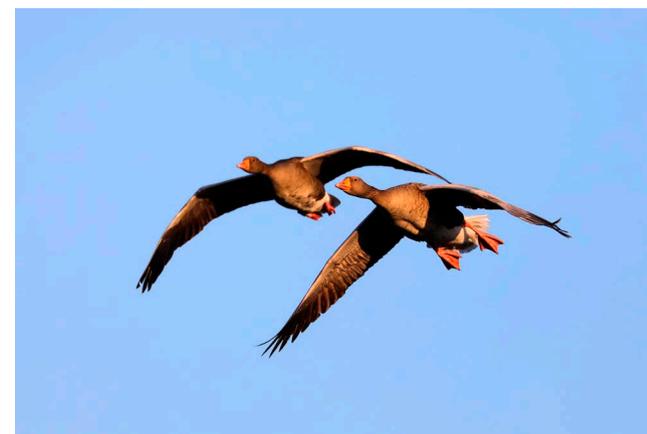
The number one priority has to be the speed of focusing that the camera can achieve. However this is actually a very difficult thing to assess when looking at specification sheets as there is not really an easily quotable figure that allows you to compare one model against another.

However, a very good indicator of how fast the camera can focus is the drive speed or the frames per second that the model is designed to shoot at. The focusing has to be able to work fast enough to keep up with the speed that the camera can shoot, so generally a camera that shoots at 8 frames per second will focus twice as fast as one that only shoots at 4 frames per second.

So if we look at what the main current models at the time of writing this book shoot at we have:

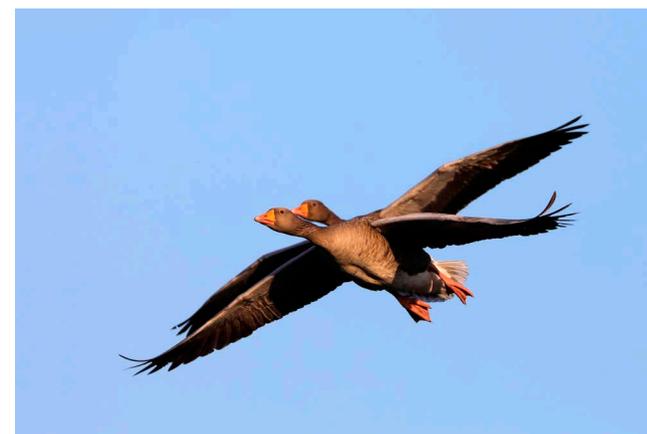
EOS 1DX II	14 FPS
EOS 5D Mark IV	7 FPS
EOS 7D Mark II	10 FPS
EOS 6D Mark II	6.5 FPS
EOS 80D	7 FPS
EOS 77D	6 FPS
EOS 800D	6 FPS
1300D	3 FPS
100D	4 FPS

We really need to look at cameras that shoot at 5 frames per second or higher to be able to cope with the majority of images of birds in flight. The drive speed indicates how fast the camera can focus and



therefore how well the focusing is going to be able to keep up with the subjects that we are taking. However it is also important for another reason, which is that birds in flight images only look right with the birds wings in certain positions.

The images here were taken on a EOS 5D Mark IV at its maximum 7 FPS and gave me a good choice of images with the birds in different position to choose from. When you have two or more birds in the frame it makes it even harder to get the birds exactly as you want within the frame area.



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Why is the drive speed important

If the wings are level or up, the image normally works well, but if the birds wings are down this often gives a very unnatural looking posture and makes the image look awkward.

If the bird is taking off or landing then you need the highest frames per second you can use as there are very rapid movements and the birds wing positions vary a lot.

There is also the reality that not all the images that you shoot will be good ones. I am more than happy if I come away from shooting birds in flight with at least one in ten of my images sharp and correctly framed. Much of the time when shooting wild birds, the keep percentage will be far lower than this. Especially if using the more basic lenses and camera bodies.

The reality in this type of photography is that you need to shoot a lot just to get a few good ones.

This is how professional photographers have always worked, but we mostly only get to see the good ones.

Digital has made it easier for the amateur to compete, as now there is no cost to going out and shooting several thousand images to get just a few good ones.

In the days of film it was difficult for the amateur to afford the volume of film shot by professional photographers.

This sequence to the right was taken on a 5D Mark III which has a drive speed of 6 frames per second and we see slightly more difference between each shot that was taken.



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Which sensor size is best?

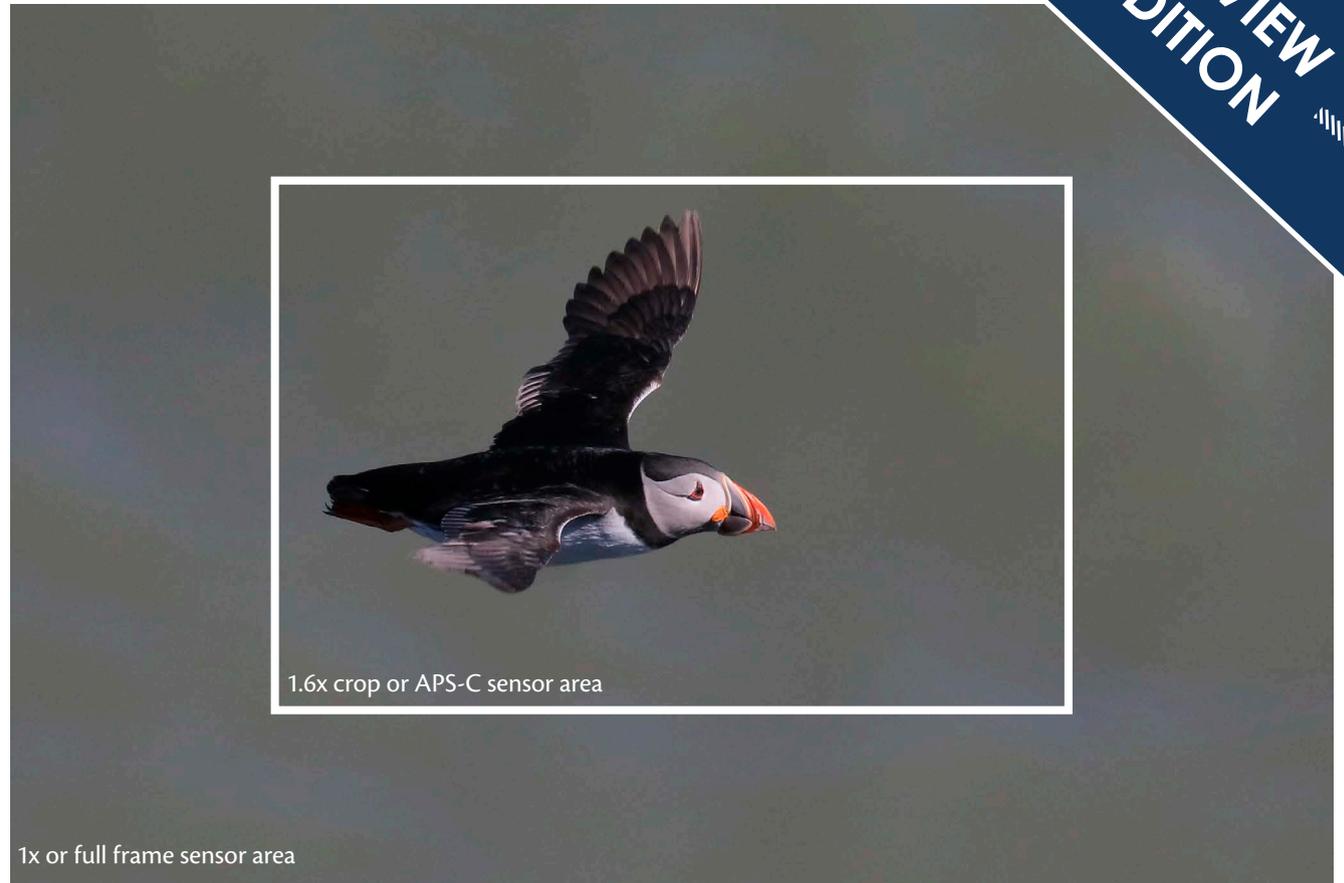
One of the advantages for bird photographers is the crop factor that some digital cameras give. The majority of the digital cameras crop the image by a factor of 1.6x. The full frame cameras can be used, but longer lenses are needed.

This magnification is achieved because an imaging sensor smaller than 35mm film is used in the smaller cameras in the range. All of the other optical effects of the lens remain the same, allowing for some very effective photographs to be taken with the more modest telephoto lenses.

This also means that when shooting birds in flight a smaller more manageable lens such as a 300mm lens can be used. You will get the same frame filling effect on a 1.6x crop model as you would get if using a 480mm lens on a full frame model, which is considerably harder to hold and follow a bird with. The minimum focusing distance, infinity point, and compatibility with the extenders are the same regardless of the camera that the lens is being used on. This can be especially useful if travelling with the lenses, as a long telephoto lens can take up almost all of your cabin allowance. Generally the 1.6x crop sensor models are a little smaller as with cameras such as the 800D, 77D, 70D and 80D.

The full frame cameras can be used for shooting birds in flight but longer lenses are going to be needed making the outfit more costly and much more bulky as we can see with models such as the EOS 5D Mark IV.

However, there is another aspect to consider, which is that the full frame models have a better performance at the higher ISO settings and therefore can offer a big advantage when shooting in poor weather conditions.



The 5D Mark IV has a standard ISO range that goes up to 32000 ISO. Compare this with the 7D Mark II which goes up to 16000 ISO as standard and there does not seem to be much difference. However, when shooting the 5D Mark IV can be used realistically up to 12800 and you will see relatively little image noise. The 7D Mark II will show up picture noise at ISO settings above 3200 ISO giving the 5D mark IV an advantage of about 2 to 3 stops. It may not sound much but in poor lighting it can make all the difference between getting the shutter speed you need to get sharp images and

getting image blur as the shutter speeds are too slow for the images you are trying to achieve.

The better ISO settings only apply to the professional and advanced models such as the EOS 1DX models, EOS 5D Mark III and the EOS 5D Mark IV. The SDS/DSR models feature a 50 mega pixel sensor and due to this the maximum ISO on the camera as standard is only 6400 ISO, which gets really noisy if it is used above 1600 ISO. It's important to realise this as many photographers think it will give them better images when they crop.

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Camera size and handling

Camera size can also be important in this area of photography. This is because most of the lenses that we are likely to be using are fairly large and heavy and therefore if fitted to the smaller size bodies, such as the EOS 100D and 1300D models, the lens can make the combination very front heavy. Even the 800D and 77D are a little unbalanced with the larger lenses used a lot in this field of photography.

Therefore the mid and higher range models which are larger and chunkier to handle, offer a distinct advantage when it comes to the balance and handling of the equipment that is being used.

An accessory that can help a lot with the camera's overall handling is the use of a battery grip. This makes the camera's overall size a little bigger, introduces a second release button for when shooting vertically and adds a little weight with the extra battery pack that will help to stabilise and balance the large lens that you are likely to be using.

Although not available for all models, most of the models that are suitable for the focusing requirements of this type of photography will have a compatible grip available for a relatively modest cost.

They also are excellent accessories for any area of photography where you shoot a lot of vertical framed images, as they give far better camera handling with the second shutter button when shooting in the vertical format.

If thinking about one it is worth visiting a dealer where you can try it on the camera and feel the handling as the larger camera size and extra bulk to carry is not for everyone.





It can be very easy to buy a camera and get to know and love it and be reluctant to upgrade. One thing I notice in my job is how quickly cameras can start to look dated.

I remember the EOS 7D, the original one coming out and the excitement it caused. At the time I was shooting with a 1D Mark III, a professional model which offered great focusing yet it was a few years old. When I tested the 7D it was so good I went out and got one (2009) and replaced my professional body with it. I shot literally hundreds of thousands of images with the 7D and was really pleased with it. 3 years later (2012) I tested the 5D Mark III which redefined the way that the focusing worked on a non professional body and added one to my outfit. During the first year I had it I periodically had to go back to using the 7D, and was really amazed by how much slower the focusing was on a model just a few years earlier and then in late 2014 the 7D Mark II came out with similar focusing specification to the 5D Mark III but dropping the price point by a significant amount. In some instances, especially with lenses that have

more restrictive widest apertures of f5.6, the focusing on the 7D Mark II can outperform the 5D Mark III.

Time rolls on and I now have a 5D Mark IV and yes it does make both the 5D Mark III and the 7D Mark II look slow in comparison. I have the advantage that I am a technical specialist and photographer and using the latest gear is part of the job. Having two bodies allows me to sell one of the bodies at a "good time" before the price drops too much. Canon's launch times for specific models are normally fairly predictable and so selling the old camera before the new one comes out normally gets a much better price - it just means that I only have the one camera for a short period. If I really need a specific model in the meantime, then I can always hire one if necessary.

I am well aware that many photographers have to stick within budgets (before anyone emails in!) But this is one area of photography where the focusing performance is important. One advantage we have seen over the last couple of years is the models that will cope with high speed action photographer has increased significantly and the price has come down

a lot for a suitable model.

So keep an eye on what is happening within the market and if a model appears that offers a significant advantage have a look to see if you can afford to upgrade to it. Remember that your previous camera is always worth something, though its also fair to say that the newer it is the more you will get for it. Models over 5 years old tend to reduce very rapidly in value.

The interesting thing looking at the cameras at the top is that at first glance the cameras have hardly changed at all. You need to look in detail at the actual cameras specifications and some of the write ups on the cameras, to see where the key improvements have occurred. That's also another thing that has become obvious from many of the conversations that I have had with people on the courses that I present, is how easy it is to miss some of the key features offered by the new models. The one thing that everyone always looks at - pixel count is the one thing that really does not bother me, as anything over 20 million pixels and I am happy.

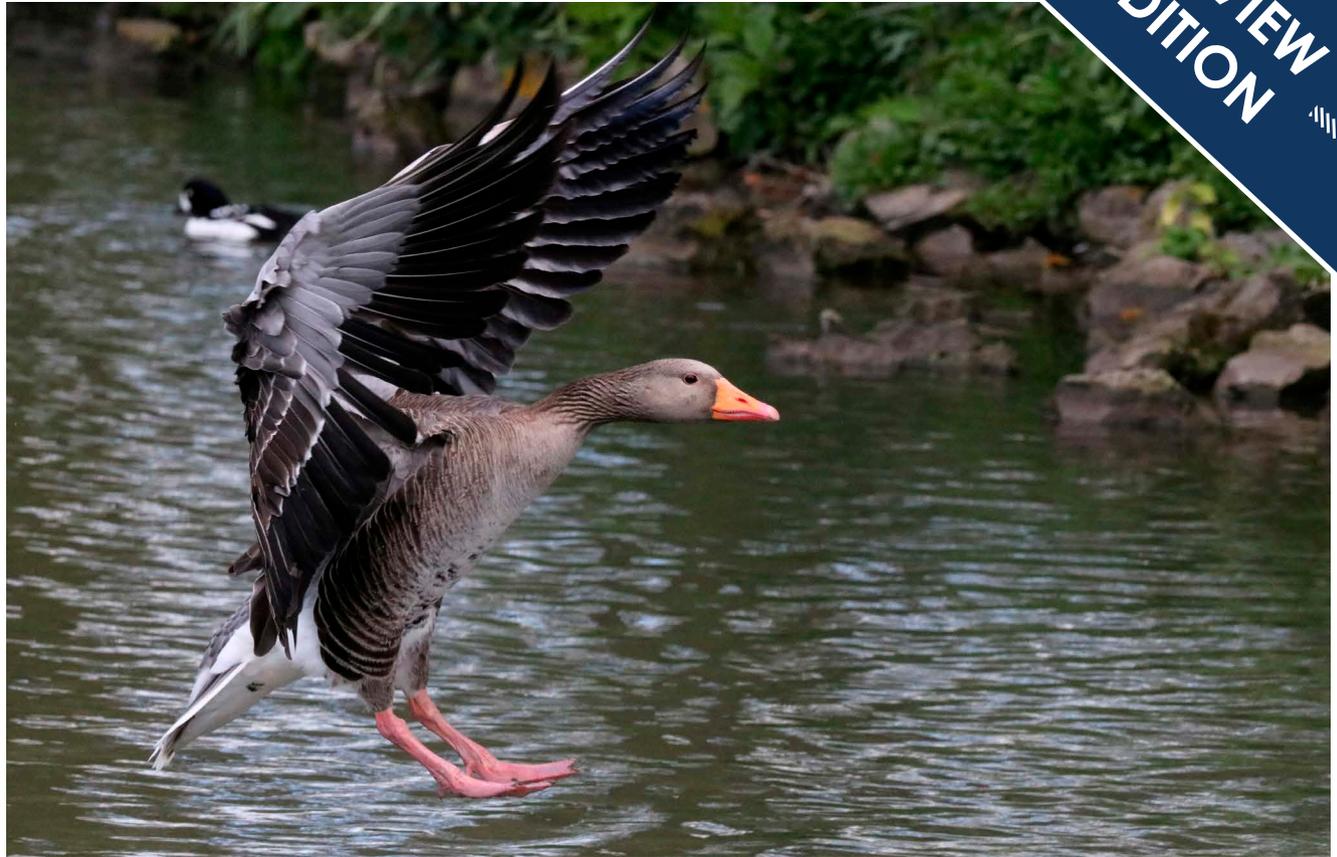
Camera summary

Today it is easy to find a camera that will take great action images. The EOS 800D, EOS 77D and EOS 80D all have great focusing which will cope with most birds in flight. The image to the right was taken on the EOS 80D with a shutter speed of 1/2500th f11 at 5000 ISO as the weather was far from ideal. However it still produced a good shot even though it does have a little more noise than I would ideally like.

The old adage, you get what you pay for, still applies as the more expensive bodies will give faster focusing and therefore more consistent results.

However the body you choose is not the only thing that will be important, the lens you fit to the front also has the power to make a basic camera focus faster or a good camera focus slower depending on the combination that you put together.

This is something I have always been aware of, however it really showed up when I was testing the EOS 1300D model. The best thing about this model is that is very low in price and makes the EOS range very accessible to everyone. It has to be said that the focus is great for anything that is static, but for moving things it can be challenging.



I tried it with the basic EF-S 55-250 IS STM lens which is designed for this type of model and it was hopeless trying to get it to focus on anything moving. However, when I put my EF 100-400mm f4.5-5.6L IS II USM lens on it the focusing got visibly better and I managed the shot to the left. It's not a combination that I would normally expect to see together but it was proof that a fast focusing lens could improve the performance on a basic body.

However be aware that it also works the other way around. If you put a basic lens onto a very expensive

body it can slow the cameras focusing down significantly. For an EOS model to work at its best the lens should have a widest aperture of f5.6 or brighter.

There are many independent lenses that drop the widest aperture down to f6.3 or even f8 to make the lens smaller, lighter and more affordable. They may be a lot less than the Canon lens but that is only a benefit if they work fast enough for this type of photography. If your camera lens combination is struggling to focus do not assume it will be the camera at fault as the lens also has a big effect on focusing performance.

PREVIEW
EDITION



This image was taken on a 80D with a EF 100mm f/2.8L IS II USM lens fitted. The settings were 400 ISO 3200 shutter speed of 1/2000 and an aperture of f8.

PREVIEW
EDITION

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