

Part 2 -- How to understand your camera.



*This is the 2<sup>nd</sup> article in a multipart series covering many aspects of photography. In this part I will look at the how, ie how to get the best out of your camera. In Part one I will focused on the why and the what of fishing photography In part three I will look at what makes a good shot as well how to photograph your catch. Part four will look at how to take photographs for articles as well as how to add a more professional touch to your lighting in all fishing situations.*

## **Photography**

This next section is all about photography and less about the technology and so is a lot more vendor neutral.

Photography literally means “writing with light” in ancient Greek and consists of controlling 2 variables. Shutter speed and aperture, the rest of the controls are just there to support these 2 areas. Both areas will need to be balanced in order to master photography as both will have a significant effect on the quality of your pictures as well as allowing you experiment with creative control.

### **Shutter speed.**

This is controlled directly by the setting Tv and can be set from B ( bulb) to 30 seconds. Basically this is the way in which you control how long the light is allowed to shine on the sensor at the back of the camera. The effect this has is to allow for action to be either “Frozen” at a high shutter speed to blurry at a low shutter speed. By controlling the shutter speed with TV mode you can fix the type of picture you take whilst allowing the camera to adjust the aperture to ensure that sufficient light comes into your camera. In fishing you might use this to capture someone making a cast. To do this you would select Tv mode and set a high shutter speed (say 1000<sup>th</sup> of a second), shoot a burst of shots as

they unwind the cast. The camera would effectively freeze the action and select the largest aperture it could dependent on the prevailing light conditions.

In the next section I will show the differing effects of both slow and fast shutter speeds. The next photo shows me in mid cast captured at 1/1250<sup>th</sup> of a second.



Nota how I appear to be standing still even though the rod had a healthy bend as it approaches full compression.

The next photo shows the effects of a very slow shutter speed,



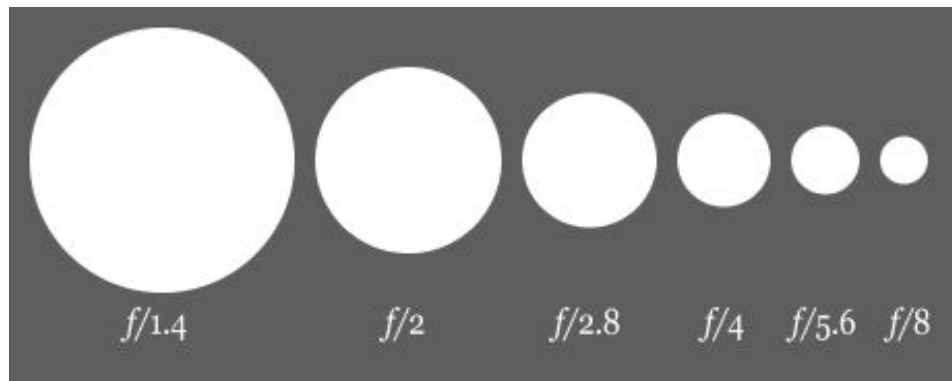
Note that the rod is now completely blurred and at 1/125<sup>th</sup> of a second whilst I am sharp the rod is not.

For a carp angler looking to capture trophy shots shutter speed is not all that useful, as long as the shutter speed is fast enough to shake free it should be OK. A question that often gets asked is how fast should the shutter speed be ? Well a good rule of thumb is that the shutter speed should be at least twice the focal length. I.e. if you are taking pictures at 200mm you should be shooting at 1/400<sup>th</sup> of a second or higher. Image stabilization makes a huge difference here but no matter what I am shooting I always aim for 2 times the focal length.

### Aperture

This is controlled using the Av setting and the range it can be set to depends on the lens you have attached. If you look back to the lens section you will see that I have quoted most zoom lens's with 2 "F" values ( F means Focal), the lower value is the lowest "F" number the lens can work at non extended ( non zoomed if you will) and the higher number is the lowest value that the lens can operate at whilst zoomed. Ie a lens might have the numbers 10-20mm F3.5-5.6, this would mean that when the lens is set at its widest angle setting (10mm) it would have an aperture value of F3.5 and when it is zoomed to 20mm it would have a lowest minimum aperture of 5.6. More expensive lenses have what is called "constant aperture" and they remain at the same aperture throughout their zoom range.

The F values commonly range from F1.4 to F32, lenses that have low F stop values are called "fast" lenses and anything at or below F2.8 is generally considered fast. The "faster" the lens the lower light conditions you are able to shoot in and the smaller the focal plane you can generate. The F stop value is an indication of how large the hole is in front of the sensor. A high F stop value ( ie F22) means a small hole and not a lot of light gets through. A low F stop value ( Such as F2.8) means that there is a large hole for the light to pass through on the way to the sensor.



So what does this all mean ? well basically the aperture controls the depth of field. Ie the amount of the picture that is in focus. A high F stop value will mean that you let in less light but will have a lot of the picture in focus, conversely a low F stop value will allow for less of the photo to be in focus.

Putting all of the above in real carp angling terms, a low F stop value will allow you to take a trophy shot of the angler and blur out the background focusing all of the attention on the angler and the catch. A high F stop value would allow you to get a lot more of both the foreground and the background in focus would be very useful when taking panoramic shots of the lake or other landscape shots.



In the above picture you can see that the rig is in perfect focus whilst my face is thrown out of focus. This is achieved by setting a very low “F stop” ( in this case F2.8) and focusing on the lead rather than my face.

## **ISO**

For those of you from Camera days, the “speed” of the film was determined by its ISO rating. The same still applies to digital photography, the ISO setting controls how sensitive the sensor is that records the image. ISO settings typically run from 100-3200 or in more advanced cameras from 50-256 000 ( for the Canon 5D Mk2). The general rule is, the lower the ISO the better the quality, but the more light is needed. The higher the ISO, less light is required but the lower the picture quality. At high ISO settings pictures will appear to have “graininess” or “noise” In modern DSLR’s good quality high ISO pictures are the key target, for an angler the higher the ISO the better as it will mean that photography with an acceptable shutter speed and aperture can be practiced in far lower lighting conditions.

## **White balance**

This setting is setting that determines what a camera determines as “white” (well actually 18% grey but that is for a more detailed article). If you are taking JPG’s pictures it is critical that you set this correctly. Though you can use a “white balance” card (which are

grey..) I would suggest just using the presets that your camera has programmed in. Remember that the “cloudy” setting will always give a slightly warmer look so if the lighting is poor opt for this.

## **RAW V's JPEG**

These settings control how the final picture is saved to your memory card. A JPG ( or JPEG) is an actual compressed image file which has all of the colour balance, white balance and other settings saved and rendered into an image. A RAW file is basically a complete dump of the sensor at the time that the picture was taken. None of the above settings have been saved and the file is not even an image (though it will contain a small thumbnail image of what the image could look like). You might be wondering why you might want to use RAW but the advantages are endless. Firstly the RAW file contains a huge amount more data than the Jpg and is completely uncompressed and as such you have a massive amount of flexibility in what you do with it. If the picture was too dark you can compensate for up to two “stops” of light, ie if the picture was taken at 1/8<sup>th</sup> and should have been taken at 1/2 a second you can compensate without losing detail in the shadows. The down side is that you will have to use a computer to “render” the RAW's into a more useable format however this is a small price to pay. You will need to use specialist software however this generally comes with the camera and is easy to use.

## **Flash and lighting**

This is one of the most defining aspects of DSLR (and Prosumer) camera shooting. The option of using an external flash is what makes all of the difference. Not only is an external flash (generally) more powerful than a built in flash but it is also higher up to the lens reducing the appearance of “red eye”. You can also “bounce” off of walls / the ceiling (if indoors) for a lovely effect and I would suggest that apart from taking trophy photos in super bright sunlight I would always use a flash. If you do this alone you will notice a massive improvement to your pictures.

## **Conclusion**

Well that is all for part two, in part three I will look at how to put it all together and photograph your catch as well as other ways of practically applying these techniques.

If you have enjoyed this article and have found it useful please do not hesitate to comment on it, I am always open to suggestions. If you have a particular photography question please do not hesitate to contact me via email or PM and I will always try to get back to you, likewise if you have suggestions for future articles let me know and I will do my best.

