

Digi-scoping – a guide, well almost!

This is how I do it.

Dylan

Dylan Wrathall; a “photographer” – utter nonsense! I know as much about photography as I do about nuclear physics! The reasons behind my posting this piece are as a result of several, very complimentary, e-mails, conversations in the field and a particularly nice letter received, via the Royal Mail, commenting on the quality of my images on Planetthanet.org and asking what I am doing to achieve these results. It is true that I used take a few photos of fish, very large fish on occasion, and I have worked for Kodak Ltd, but it has little bearing on what I do with my digi-scoping gear.

The ability to use a compact digital camera to record pictures through the eyepiece of a “spotting scope” has revolutionised image recording. The cost of equipment to equal the magnification possible, using conventional photographic techniques, including dSLR’s, would run into telephone numbers. Technology has now brought this into the reach of ordinary birders/naturalists and allows anyone, who so desires, to record images and place them into the cyber system within minutes. It is obvious that the picture quality will always be inferior to the specialist equipment, but it is certainly of a high enough standard for the average enthusiast. The next development is the use of the camera technology incorporated in the latest mobile phones – I have absolutely no experience of this, I don’t own a mobile phone, but the results I have seen are very good.

So what do you need to know? Basically nothing, it is quite possible to record an image through a telescope by holding a compact digital camera to the eyepiece and pressing the shutter release. However, if you wish to produce better images and more consistently, there are several simple things that you can do to achieve this

My own experience is based upon the theory of “if at first you don’t succeed” Poor digital pictures cost nothing to take, or delete, hence there can be no excuse for not attempting to record the image. I regularly take 140 images in a 2-hour walk around Grove Ferry or Ramsgate Harbour. If I manage to get 10 that are of use for the website – job done! It hasn’t cost a brass farthing (showing my age again!) to discover that the majority of them were rubbish. Don’t immediately discard these – they

may contain an odd gem that allows a certain feature to be seen – if only for recording purposes. Remember that a bad image is better than no image! I am now on my third compact, having worn out my original Nikon CP 775 (30,000+ pics in 12 months!). It was replaced by a Nikon CP 4300, which has been superseded by a Nikon CP 7600.



So what about equipment? I have an obvious bias towards Nikon & Kowa, yet I don't believe that a compact digital camera exists that can't be used in conjunction with a scope, the choice of which is also extensive. Quite how you connect the two is less clear, but there are plenty of commercial websites available to test this theory. My personal resolution to this conundrum is a length of cardboard tubing (toilet roll for the less discerning), some duck tape, a strip of Scrumpy Jack can and a "Jessop's" cable-release mounting. Cutting edge- if ever there was such a thing! The tube is a push-fit over the eye-piece and the camera is permanently set up for digi-scoping with the cable release and tube attached at all times.

I have to admit that digi-scoping has added another dimension to my enjoyment of an already fascinating hobby. The pleasure of seeing a particular bird is enhanced when I manage to record a nice image. Even when the bird is quite distant, it is usually possible to get a record pic. There are several drawbacks that causes frustration, at times. The set-up is

not conducive to obtaining flight shots or following those mobile crests & warblers through vegetation, even though they are only a few feet away. A need for constant alteration of the focus is required because the “depth of field” (the area in sharp focus) is very narrow and any change of position will result in the subject moving out of focus. Trying to follow a bird with a, tripod mounted, telescope, whilst fiddling with the focus, all the time attempting to keep the subject on the digital display screen, on the back of the camera, would test the patience of a Saint! Just when you think that you have it cracked, there is always the added hitch of shutter delay. This is a particular feature of the Nikon “Cool Pix” range, but I’m sure it is not unique to this manufacturer.



A nicely posed **Common Kingfisher** – taken from the Green Hide, at Grove Ferry, in almost perfect conditions. The sunlight from behind me, no wind and my subject within 10m of the scope. This illustrates the quality of image that can be obtained when all the factors are in your favour. If only it was always this simple.

Digi-scoping really comes into its' own when the subject is over 30m away. At this distance, the very expensive and heavy lenses of the digital SLR cameras are at their limit, yet the higher magnification available to the digi-scooper allows very useable pictures to be recorded. It must be remembered that the size of the subject will have a bearing on the quality of the results as much as the prevailing light conditions and strength of the wind. In optimum conditions it is quite feasible to record decent record shots of geese, swans, herons, etc at distances around 150m!



This **Cattle Egret** was digi-scoped on the Preston Marshes at a distance of approx 80m. As you can see, it is not razor sharp, yet captures all the detail required to make a positive id and is presentable enough to be posted on the website. Something else that this picture demonstrates is the inability for digital imagery to capture the subtleties of whites in direct sunlight. I'm sure that technology will continue to develop and improve this situation.

My camera is set on the automatic mode with the flash turned off. Using these settings I have managed to record images, of varying quality, in all conditions from bright sunlight through to the semi-dark of a Clowes Wood dawn. The camera determines exposure time; all I am required to do is focus my subject in the scope **BEFORE** I attach my camera set-up. A steady tripod with a lockable head is a real asset. In fact anything that can reduce the effect of camera shake – hence blurring of the image – is worthy of consideration. This is particularly obvious when it is windy. I

take an awful lot of my pics around Ramsgate Harbour by kneeling down keeping my tripod to its' minimum height. This really does help beat the vibration caused by the buffeting of the wind when I'm in such exposed positions. I do try to find shelter, if it's available, but sometimes I just have to rough it. It is in these situations that I take multiple shots, in the hope that one will be of sufficient quality to be posted. This also has another benefit in as much as I get a different perspective on my subject.



Shore Lark

A very pleasant encounter on a blustery, grey, February morning. By keeping the camera as low as my set-up allows (approx 70cm to the eye-piece) I was able to capture this image, although an exposure of 1/31st sec at F4.6 wasn't enough to prevent the loss of sharpness, particularly around the breast.

So that's about as much as I am able to tell you about digi-scoping. I permanently keep my camera settings on fine image quality, maximum resolution (i.e. 7 million pixels with the CP 7600) and film ISO 100. Trust me when I tell you that I take 1,000's of pics each month. What are posted on Planetthanet.org are the best I have managed, the vast majority of the rest are generally destined for the recycle bin on my PC. The posted images are invariably cropped, from the original, using A.C.D. See 6.0 software. When I first started, I happily used the Nikon Foto Easy program that accompanied my original CP 775. It was simple to use and

helped be produce some very pleasing images, despite only being a 2 million-pixel camera. My desire to learn more about digi-scoping has been mirrored by my increased knowledge of what the available technology can do to “enhance” my efforts. I now regularly use the digital zoom facility on my camera. The pictures are not of a quality that compares with the normal optical zoom, but it has been a real asset when attempting to read colour rings on gulls around Ramsgate Harbour and at Foreness Point. Magnification of x150 is possible, which I can blow up even larger when I get back to my computer. On one particular occasion I was able to decipher the C-R code on a Lesser Black-backed Gull at over 300m! Absolutely amazing and technology is improving by the day. Just what sort of images we will be capable of by 2010 is anyone’s guess? How I wish digi-scoping had been available during that superb year of 1999.



Adult “atlantis” **Yellow-legged Gull**

Taken with my original Nikon Cool Pix 775 – Gran Canaria Jan 2004. I received the camera from Unilever for 15years service. I don’t think that any other gift has ever made such an impact on my life!

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