

A first impression of the Nikon D2x and Subal ND2 Housing

by Alexander Mustard

INTRODUCTION

We live in a hurly-burley disposable digital age. When it comes to technology we all want the latest and greatest, and we want it now. Or preferably yesterday! To meet this demand, digital products can be rushed to the market without due care and attention and everything from computer software to digital cameras regularly receive user installable updates to fix bugs and improve performance. Nikon have taken a different approach with their new flagship digital SLR, the 12.4 megapixel D2x, and have only released it when they were ready. The D2x is late, and my early impressions suggest that it has been well worth the wait.

Please bear in mind that the D2x was only released a couple of days before UWP 23 went to “press” so this review is very much a first impression. Off the record I have been blown away by the image and overall quality of this camera, but in this review I intend to be more objective with my comments, and I will save the purple prose until I have had the chance to dive it. This camera has high specs and a 260 page manual to cover them. I have tried to limit this review to the features I feel most applicable to underwater photography.

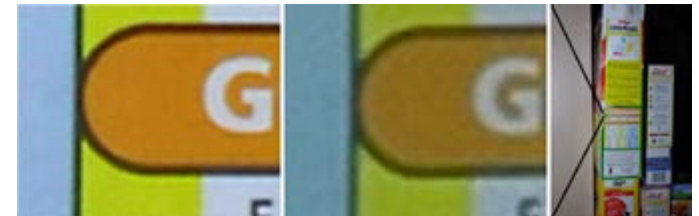
The question on many camera-fans’ (but maybe not photographers’) lips is can the new Nikon beat the current global benchmark, the mighty Canon 1DS Mk2. Well, I am afraid I am



not going to answer that question for two reasons. First I have not had experience with both systems underwater. And second I believe it has little real relevance, except for bragging rights. I say this because nearly all of the early comparison tests have shown that when used properly both cameras are capable of exceptional results, well in excess of the quality of 35mm film for large prints. These are both very expensive pro-level cameras, they are not going to be anyone’s first camera and undoubtedly, an individual’s choice will be influenced by the kit that he or she already owns. For this reason I have tailored these first impressions towards existing Nikon-mount 35mm and digital SLR users.

THE NIKON D2x

The D2x offers several advantages over existing Nikon SLRs for underwater photography.



This image shows the difference in resolution, colour and white balance between JPGs shot with a D2x left and D70 and flash. The colours in these images are straight from the camera, shot with auto white balance.

The most obvious is image quality, which I feel is a sizable improvement over all Nikon DSLRs. The D2x produces images of 4288 by 2848 pixels, and their quality makes them highly suitable for “uprezzing” to massive print sizes. However the pixel count is only a small part of the image story. I have been shooting the camera back to back with a Nikon D70, and it is the fact that the images are so vibrant and clean that makes them stand out more than the resolution. Potentially very encouraging



is that blues and cyans are vivid and saturated, and reds and yellows are recorded with accuracy (I will confirm this potential in the ocean and report in the next issue of UWP). I have also read reports that the camera handles strong highlights, such as sunbursts, very well and I am looking forward to testing this capability underwater.

Personally, I have never shot a digital image underwater at anything other than base ISO, but I feel obliged to mention the ISO performance since it is such a hot topic in digital debates. I have found the image quality to be exceptional at the base ISO of 100, excellent at ISO 200-400, and good at ISO 800 when used with flash. At ISO 800 the noise is visible when the images are zoomed on a monitor to 100% or above, but there is little chromatic noise. Even at ISO 800 the colour and sharpness of the images remains impressive. That said, from what I have seen I think that some of Canon's digital cameras (e.g. 1D Mk2 and 1DS Mk2) outperform the D2x in their control of high ISO noise.

These digital-days many people seem to forget that there is more to a camera than its sensor. The D2x uses an improved version of Nikon's Multi-CAM2000 11 point Auto-Focus sensor, which is a



generation beyond the F5, F100, D1 series Multi-CAM1300 5 point sensor and two steps up on the D100 and D70's Multi-CAM900. This AF system is amazing. Through this camera the world's bristles into immediate sharpness. The 3-5-3 football team of AF points adheres to the rules of thirds formation, and the sensors can be grouped or controlled dynamically by the camera.

The Multi-CAM2000 is already well known for its low light/low contrast AF ability and I think will be a real advantage for macro shooting underwater. The viewfinder is bigger and brighter than the D1, D100 and particularly the D70. Sitting here in front of my computer with a D2x and 35mm F100 - the D2x is notably brighter, but a bit smaller. The 'plip' of the shutter oozes quality. Indeed the whole camera does.

Perhaps the most notable difference when shooting with both the D2x and D70 is the LCD screen. The D2x offers the full widescreen cinema experience - 2.5 inches across and 235,000 dots (the D70 is 1.8 inch and 118,000 dots). The LCD also allows you to check the RGB histograms and to verify sharpness by zooming to a massive 27 times the original magnification. This information

is available as soon as you can press the buttons after taking the image, with both RAW and JPG. Shooting digital is very different from shooting film, and "chimping" over the LCD screen, reviewing your shots critically while in the water, is a crucial part of the technique of digital underwater photography. The D2x's LCD offers a massive advantage in this area.

White balance is controlled from three separate sensors and was another very strong performance area of the D2x, compared with the D70. This was particularly true when shot under mixed lighting with flash, which bodes well for underwater shooting. For filter fans the camera offers both preset white balance (using a grey card or any neutral coloured object) and the ability to directly set the colour temperature in Kelvin or mired. Five custom white balance settings, including those taken from previous photographs or from Nikon Capture, can be stored in the camera.

The main disadvantages of the D2x are immediately obvious. The first is price - \$5000 USD. There is an old adage from marine science that goes "Never put any kit in the ocean that you cannot afford to lose"... The second is size. In underwater photography a good small camera is always better than a good large camera because this means less bulk for travel and a smaller housing in the water. That is why I rated the F100 ahead of the F5. The D2x is a very similar size to the F5 and consequently all the housings will be sizeable.

Big housings require more effort to push around underwater and can make it harder to get down on the eye-line of creatures lying on the seabed. (Nikon's replacement for the D100, whenever it may be announced, will probably solve these two problems.)

THE SUBAL ND2

I actually got my Subal ND2 housing the day before the international release date of the D2x. This was possible because the D2x is built on the same magnesium chassis as the D2h (a low resolution camera designed primarily for newspaper photographers). My housing is actually labelled as a ND2H - a reminder that Subal designed the housing around the D2h! Anyway, I took the housing to my camera dealer to collect my D2x and was pleased to be able to tell Subal that the D2x fitted perfectly in their housing and all the controls lined up without adjustment.

I have written reviews on Subal's previous housings for Nikon DSLRs. While I have felt that these housings have been amongst the best available, I have always noted that certain controls were slightly compromised and not up to Subal's own standards of refinement, established during the days of film. The reason was always obvious: digital cameras have a limited shelf life and people want the housings as soon as possible. Back in 1999, I waited a year and 4 months for my Subal F100 housing. Last year I reviewed a Subal D70 housing in August and the camera had only appeared in March. This short development time has its compromises.

Anyway I can say without a doubt that the Subal ND2 is a true Subal. Every control is correctly geared (i.e. 1 click, one stop), weighted and falls to hand. Everywhere, you can sense the care that has gone into this housing. It oozes quality craftsmanship. Ergonomics may only seem like small issues but, over tens of thousands of pictures, they make a difference.

The ND2 offers 29 controls for the camera!



When gripping the Subal ND2 my fingers automatically fall onto the shutter and aperture knob, while my thumb controls the shutter speed dial.

Left. This image shows the quality of the engineering of the controls in the ND2 housing. Note the gearing for the aperture dial that ensures a one click = one stop control of the aperture dial. Also note the options for manual (3 pin) and TTL (5 pin) sockets for the flash connector.



Lenses and memory cards can be changed without removing the camera from the housing. But the camera must be slid back on the mounting tray to download images via the USB2 cable and to change the battery.

The only additional control I would like to see is one for the programmable Function button control that is below the depth of field preview. This control can be programmed to implement various changes to the camera at the touch of a button (although all such changes are available through the more cumbersome menus). I doubt any housing manufacturers will support this button because of its awkward position. The main controls all fall immediately to hand. While holding the right handle, my middle finger falls on the shutter, ring finger on the aperture knob and thumb on the shutter speed (or AE-lock). Furthermore, while holding the left handle my thumb falls neatly onto the all important image review button. All the other buttons are most easily operated with the left hand, while keeping the right hand on the handle.

Lenses and the memory cards can be changed



without removing the camera from the housing. The camera must be slid out of the housing on the mounting tray to change the battery, but this will usually last through a full day of shooting. The camera must also be slid back on the tray to download pictures via the USB2 cable. One disadvantage when the GS Viewfinder is fitted (which mine will have when my bank account has recovered from its recent exertion) is that the housing cannot be easily laid on its back when changing lenses and ports. The LCD is well shaded from daylight and unobstructed. The D2x has an external white balance sensor on top of its prism, which cannot see any light when inside the housing. A few weeks ago I asked a Nikon technician about the consequences of this and he told me that the camera ignores this sensor when it is covered up (after all it has two other white balance sensors). So

I am pretty confident that this will not be an issue.

Finally, I should mention that this camera produces large files (RAW pictures are close to 20MB) and it is important that you have sufficient storage and computing power to handle them. I am using a 4GB card with this camera at the moment, which gives me 199 RAW files.

SUMMARY

The D2x is an incredible camera that significantly outperforms all the existing Nikon mount digital SLRs. The quality is such that I will no longer travel with a film camera because, from what I have already seen in my first couple of days, it produces superior images for large printing.

The D2x is not the camera for everyone. First it is expensive and many of its specifications will greatly exceed the needs of most people (I certainly don't need its high-speed cropped sensor mode with 8 frames a second, or a Wi-Fi communication or GPS compatibility). More importantly while it captures images with vivid detail, it also captures your mistakes with the same clarity. Its rather like shooting medium format, if you are sloppy with your photography the D2x will expose you. I expect the same will be true of poor lenses and optically compromised dome port set-ups. Just as Nikon have put in that extra effort in when refining this camera, and Subal have added that extra level of quality to the housing, I feel I will have to raise my game as a photographer to get the most out of this superb setup.

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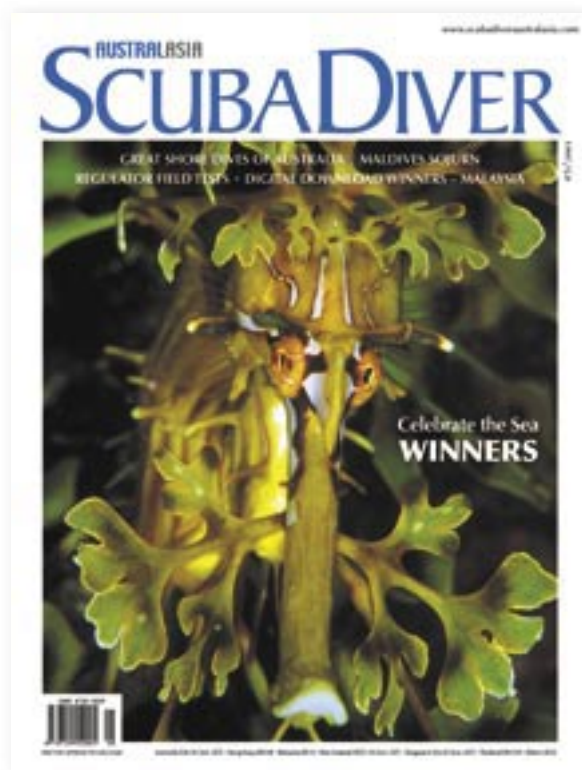


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