

Around the clock with a D2x

by Alexander Mustard

When I bought my Nikon D2X and Subal housing I wrote a review here in the pages of UWP (Issue 23, March 2005). Since then, I have taken over 100,000 underwater photos with my camera and reaching this milestone, last week in the Red Sea, got me thinking. Most camera reviews are first impressions and all housings look great in the showroom. Here I want to share the experiences of life with an underwater camera system. What breaks and how easily problems were fixed, what wears out, what needs replacing and perhaps most important, what does not.

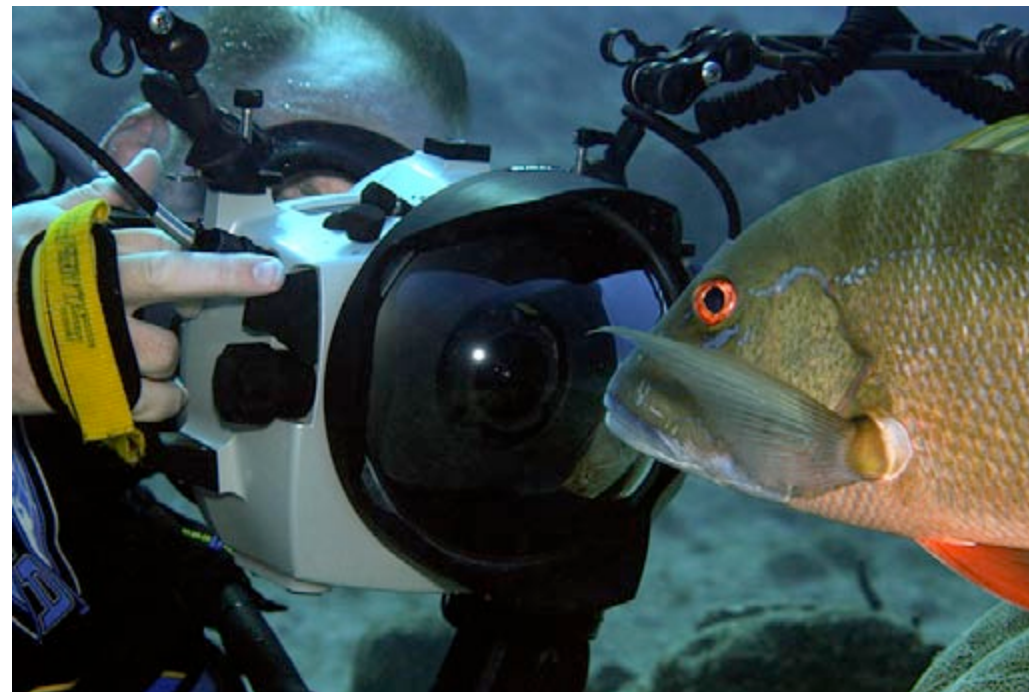
I do not expect many readers will have the time to clock up this amount of use with their camera, but I hope that my experience provides a useful bench mark for judging the lifetime of elements of your own system. They say that hindsight is 20/20 and I am also curious to see how my opinions have changed since that first review. I'd also like to compare how the old dog stacks up against current cameras. The answers will explain why I have not yet traded in. It is a

timely moment to comment because it is suspected that Nikon will be announcing some juicy new machines in early July, just after this issue of UWP is released.

I never expected to keep a digital camera this long. I had my D100 from 2002 to 2004 and when buying my D2X on the 25th February 2005 (the day it went on sale) my accountant agreed that it should be written off by the business over a similar two year life-span. Three and a half years in and it is still going strong. I wrote in my original D2X review that it was a very overdue camera for Nikon, but at least they had taken the time to get the product right. And so it has proved with its reliability and longevity of image quality.

So what has gone wrong with the camera? Simply, nothing that has ever stopped me shooting. 100,000 underwater photos with no serious problems is a fact that both Nikon and Subal deserve the utmost credit for. Particularly as I continue to make many of my trips without a backup.

Generally, I travel with the



The D2X in action. Despite the workload the system has been very reliable and shows little signs of wear. Only the faded camera strap gives away the workload. Photo by Eleonora Manca.

camera inside the housing in my hand luggage, along with lenses and laptop. Strobes, ports etc go in the hold, in a hard Samsonite suitcase. I do not use hard "Pelican" style cases because they weight too much and attract the attention of customs officials and thieves (reading Tim Rock's experiences in Bali these can often be the same person).

The camera still looks brand new, primarily because it has lived a charmed life sheltered within my Subal. I have not used it much above

the surface because I am a poor land photographer. The only time that the camera has been back to Nikon is when I had an issue with the autofocus in South Australia. I jokingly called this "Stephen Frink Syndrome" as the autofocus stopped working with macro lenses (the gag being that Steve shoots pictures that sell, so doesn't do macro). The camera continued to work with wide angle lenses and I went on to shoot the sealion image in this article, before returning home to get it fixed. Nikon UK identified the

problem as “corrosion on AF CCD and bayonet” a replacement costing £255, which suggests life in and around the ocean took its toll.

Within the last month, while in Lembah, the push-button latch on the flashcard door has begun to stick. Again I think that this is caused by salty fingers. I must dry my hands before I impatiently harass the camera to download my photos. I tend to download after each dive, and usually check the main o-ring and any others that I disturb (e.g. ports). I won't always re-grease them, but I will wipe the sand off.

I still have the original battery, although I actually bought a spare in 2006, which has become my main one. For the first three years, I had only ever used one memory card with the camera. In February I upgraded from 4GB to 8GB because I went to shoot manatees, and knew I'd been spending hours in the water without a chance to download. A 4GB card has space for 199 RAW shots and a 8GB 398. Since then I have only used the 8GB. After each dive I reformat in the camera and have never had a card go down or lost any images.

Subal's ND2H, mine is one of the pre-ND2 housings, has been fantastic. The controls feel as accurate now as when I bought it from Ocean Optics in London. I never soak the housing in fresh water, preferring just a quick dip in the sweet-stuff after dives. This is not an ideal strategy and is based on my personal paranoia, which comes from seeing too many cameras flood in the rinse tank.. However, there is no corrosion on the housing. I have seen much newer housings from other brands look much older. I am still using the original o-rings in the housing and on all the ports. The faded strap on the handle is the main give-away to the workload. The



Image 9315. I have used the D2X to shoot three books, Reefs Revealed (2007), The Art Of Diving (2006) and Dive Red Sea (2007) and have been lucky enough to pick up quite a few awards. These snappers won in Shell Wildlife Photographer Of The Year 2006. Nikon D2X + 17-35mm. Subal housing. Subtronic Alphas. 1/100th @ F6.3. ISO 100.



Image 78281. This image was taken while my autofocus refused to work with macro lenses. It continued to work perfectly with wide angle lenses even when the subject was strongly backlit. Nikon D2X + Tokina 10-17mm. Subal housing. Inon Z240s. 1/250th @ F8. ISO 100.



Image 37764. UWP Editor Peter Rowlands came with me on my first trip with the D2X to the Red Sea and has been a regular buddy to me and my camera. Here Peter (top) poses with the Carnatic wreck (bottom). Nikon D2X + 10.5mm. Subal housing. Subtronic Alphas. 1/30th @ F7.1. ISO 100.

base of the housing is a bit scratched and the rubber feet are a little worn down, mainly from dragging the housing into the water when shore diving.

The only adjustment I have made to the housing was to the flash circuitry, when I first got the housing. The original problem was very strange and only occurred with certain strobes (e.g. Subtronics, Sea & Sea YS350), which for some reason caused a feedback

that meant some images would not write to the card. I fixed the problem by simply disconnecting the ready light wire, so that only the ground and trigger were connected. I published the solution on Wetpixel. It was a confusing problem and National Geographic photographer Brian Skerry wrote to me to say it had been confounding him, the Nikon reps, his housing dealer and the Nat Geo camera techs. Surprisingly other Nikon's do



Image 81289. Photographing manatees meant changing memory cards for the first time in three years. 4GB was replaced by 8GB. Nikon D2X + Tokina 10-17mm. Subal housing. Subtronic Alpha Pros. 1/125th @ F8. ISO 100.

not have this problem. Most manufacturers now supply their D2X housings wired accordingly, so most users were not exposed to the issue.

The only repair required for the housing was my fault. While on a liveaboard in Thailand this April, I dropped the rear of the housing, which struck my strobe at precisely the angle to snap the internal shaft of the Delete push-button control. The whole button fell out. It is disconcerting being able

to look through a hole in your housing in the middle of a trip. My friends were full of helpful suggestions. David Barrio proposed that I should drill another hole in the bottom of the housing to let the water back out. Others pointed out that I had taken too many bad pictures and I had weakened the delete push button through excessive use. It's true that not all of the 100,000 would impress the judges at Antibes. I was able to fix the control in the field

simply, replacing the broken shaft with a washer to hold the button in place, kindly donated by Anthony Holley. The delete control was out of action for the rest of the trip, not a big concern with a 8GB card. Subal sent me a replacement part, free of charge, on my return and it took about one minute to fix.

I have had drops of water in the housing a couple of times and one almost catastrophic flood. All result from the same issue: me using non-Subal ports. Subal provide ports to fit a multitude of lenses, but I am always try to push my photography forward regularly trying unusual lens combos and this inevitably means port solutions that are not "off the shelf". I have done 100s of dives with non-standard Subal ports and have only had a couple of problems. They are odds I am prepared to play. The only near catastrophic flood occurred this year in Thailand, when I was using a special fisheye port designed and built by Peter Scoones. However, I was using the port with a plastic extension ring (not how Peter intended it to

be used) and with the expansion of the plastic in the hot Thai temps, gush, immediately as I descended the water flooded in. I am glad my Scubapro Twin-Jet fins are powerful! It is not just great white sharks that can breach. Thankfully weather sealing on the camera meant it survived these handful of indiscretions. I still have not had a flood with any Subal while using proper Subal ports!

I have suffered a bit more with the reliability of accessories. Most lenses have been fine. My Sigma 28-70mm F2.8 died in Bali last summer: the aperture would no longer stop down. The quoted repair cost justified buying a Sigma 17-70mm, instead. Result! The biggest problem I have had with the system have been my Subtronic strobes, which have broken-down regularly, loosing their manual powers and reverting to full power. They rarely last more than 5000 shots before they have to go back to Germany. I am actually not as fussed by them breaking as the time it has taken for them to be serviced (four months is the record). I am using old Subtronics (Alphas and Alpha Pros) designed for film use and I do accept that they are now being asked to work much harder than intended. Curiously, the problem only affects one strobe of each pair and it is always the same one (irrespective of which synch cords I use or which side of the housing I attach it to). The two good strobes, sadly not a matched pair, have never gone wrong. My feeling is that it is the replacement part that keeps failing. My Inon Z240 strobes have never gone wrong. Strong like bull.

Looking back at the original review a few things stand out. I think my expectations of high ISO performance have increased and I am less impressed with the D2X than I was in 2005. Cameras like Canon's 5D and Nikon's D3 have



After more than 90,000 images my Subal needed a repair, but only because I dropped the back of the housing. I was able to hold the snapped button on with a homemade washer and continued diving.

Image 38518. I used the D2X to develop the Magic filter, which has enabled me to take some of my most original underwater photos. Nikon D2X + 12-24mm. Subal housing. Magic Filter. 1/80th @ F5.6. ISO 200.

obliterated the point of reference I had three and half years ago. I only ever shoot the D2X at ISO 100 to 200. Even at 400 noticeable noise is creeping in. Most underwater photography is base ISO, so this isn't really an issue. I also note that I promised myself Subal's GS viewfinder in the original review. I never got round to buying that! I am happy with the standard view.

The D2X LCD screen is still good, but it's



definitely inferior to the latest cameras like the D3 and D300. I should state for those reading this in the future that the D3 and D300 are, at the time of writing, the current Nikon Pro bodies. I still find the D2X autofocus cutting edge. Every single image I have taken with the D2X has been on autofocus. I have never even used the AF lock lever on my Subal. One of my disappointments with the D3 and D300 has been a lack of the grouped AF mode,

which I use for almost all my photographs. For those who want to get technical I primarily use continuous autofocus in group dynamic, pattern 1 with closest subject priority. This mode works very well with the D2X's AF, but does not work well on the D200, with its less powerful AF system. I switch to other AF modes when subjects require them.

So how does the D2X stack up against Nikon's current cameras. Personally I don't see much merit in the D3 for my underwater photography. It is a phenomenal land camera, but its strengths seem less suited to underwater use. It seems worse for wide angle and macro than a DX camera like the D2X or D300. There is no fisheye zoom, most users are finding that wide angle rectilinear lenses are suffering with blurred corners behind dome ports (particularly the 14-24mm, which is fabulous on land) and macro lenses have less depth of field for the same subject size in the 12 megapixel frame. At base ISO the image quality is no better than the D2X or D300. The 14 bit A/D conversion is a step forward, but its contribution is not easily spotted in real world images. The D3's phenomenal high ISO performance is valuable to photographers who shoot available light images in dark waters, such a deep or temperate water wrecks. I don't do a lot of that.

Ever since Nikon has introduced the D3, there has been surprising amount of honesty in photographic discussions about the merits of full frame sensors underwater. When only Canon had full frame digital, Canon users would only ever say how much better full frame is compared with APS-C sensors. Now Nikon has full frame too, it is no longer a Canon versus Nikon issue and discussions seem to be more objective. Here are a couple of recent quotes from Wetpixel's forums: Walt Sterns: "when I was shooting the 5D, I was not able to find



Image 4288. The D2X autofocus speed and modes really improved my fish photography, this was taken on my second trip with the camera. Nikon D2X + 105mm. Subal housing. Subtronic Alphas. ISO 100.



Image 89232. I am always trying new lenses in an attempt to find fresh images of common subjects. However, non-standard ports have been the only cause of water in my Subal. Nikon D2X + Sigma 150mm + Canon 500D. Subal housing. Subtronic Alphas. 1/200th @ F14. ISO 100.



Image 100594. 100000 on and still going strong! A large female crocodile fish is accompanied by two male suitors. Nikon D2X + Tokina 10-17mm. Subal housing. Inon Z240s. 1/160th @ F9. ISO 100.

a suitable wide angle, other than full frame fisheye, everything else (24mm, 20mm, 17-40mm) at or below F8 gave corners softer than... well you know"; and Eric Cheng "full frame does not seem to be any better for wide-angle, unless you're shooting low light and need the cleaner picture. You have to deal with shallower depth of field for the same field of view and funky edge and dome performance... it doesn't seem to be better for macro, either."

The D300, reviewed by Martin Edge, Dave Harasti and Colin

Gans in recent issues of UWP, is a better underwater camera than the D2X and has none of the full frame disadvantages of the D3. It is smaller, has a better LCD and better image quality at high ISO, if required. But for me the gains are not big enough to justify the expenditure of changing. Starting from scratch I would choose the D300 over the D2X, every time.

All that said, full frame will be in my future, but only when a Nikon camera comes to market that give a substantial image quality and



Image 67392. Under the right conditions the D2X has proved excellent at capturing sunbursts. 14 bit A/D conversion in newer cameras promises to be even better. I am waiting to see some convincing results. Nikon D2X + Tokina 10-17mm. Subal housing. Subtronic Alpha Pros. 1/40th @ F10. ISO 100.

resolution increase at base ISO. Canon users already have these cameras in the 1Ds Mk2 & 3. I see no advantage in full frame, for its own sake, but the larger sensor is the only sensible way to resolution of 18+ megapixels without sacrificing quality. There will be compromises in other areas and I'll sure miss the Tokina fisheye zoom.

I have no doubt that the resolving power of 18+ megapixels will be very unforgiving. In my original D2X review I wrote "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." To some degree I think I was wrong about the D2X, I hadn't factored in the saving graces of the DX format. But I will be heeding that advice when my D2X is finally put out to pasture.

Alexander Mustard
www.amustard.com

www.uwpmag.com

Have you learnt something invaluable by reading this issue of UwP?
Have you saved a lot of time benefitting for the experience of UwP contributors or do you simply just enjoy UwP and want to help it continue?

If so, please donate to the UwP contributors

You may not know this but none of the UwP contributors get paid. They provide their articles and photo talent in support of the cause of UwP which aims to keep the magazine free for anyone to download.

Donations are all handled in total security through PayPal and you can also pay securely by credit card using the PayPal links.

Your donations will be distributed to the contributors of each issue on a pro rata basis i.e. the more pages they contribute, the

more their percentage.

When deciding how much you want to donate please bear in mind that PayPal's charge for amounts smaller than £3 or \$6 can be as high as 24%!! Whilst I accept that PayPal is absolutely brilliant and safe, I don't want this to become a 'Donate a lot to PayPal'!!

You can make a donation in either US \$ dollars, UK £ sterling or € Euros by following this link

www.uwpmag.com/donate.html



Donate here



www.uwpmag.com

DIGIDEEP.com

the online directory for digital underwater-imaging equipment



Your online resource to more than

2.700 underwater imaging products - photo & video

5.200 enthusiastic underwater photographers

600 news, articles, reviews and travel reports

5.000 images in our weekly photo contest

...growing every month!



join the contest and win a funky t-shirt!!!

<http://www.digideep.com>

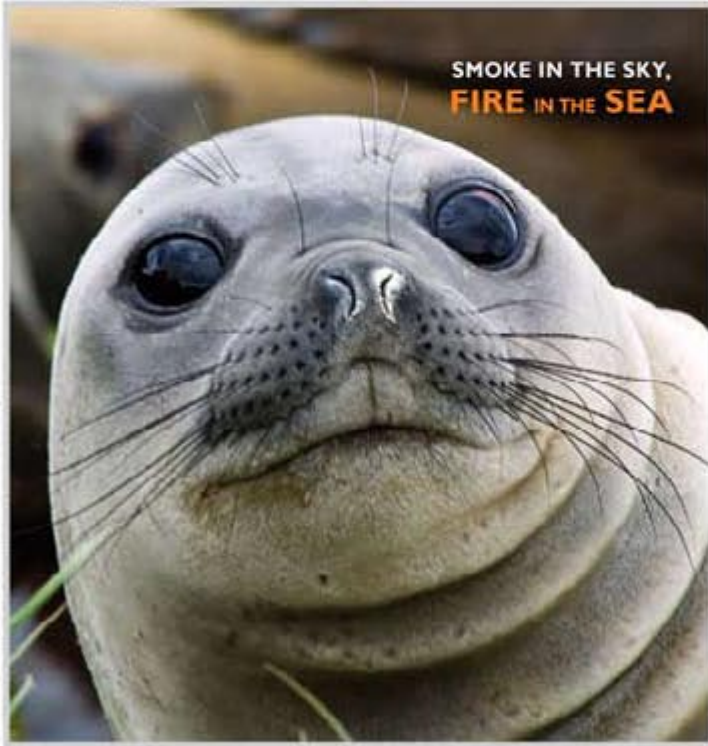
Enrich Your Legacy Join the Ocean Geographic Society

OCEAN
GEOGRAPHIC
Almanac of Our Seas

www.OGSociety.org

ISSUE 5.1/2009
THE MAGICAL SEAS

SMOKE IN THE SKY,
FIRE IN THE SEA



Ocean Geographic is a high quality photographic journal that features the finest arts and images of the sea. Each edition of Ocean Geographic is a visual adventure of discoveries, exploration and dives into provoking issues that guarantee to inform, inspire and invigorate. The board of editors and senior contributors are comprised of Michael AW, David DOUBILET, Dr Gerry ALLEN, Doug PERRINE, Dr Carden WALLACE, Emory KRISTOF, Stan WATERMAN, Dr Alex MUSTARD, Jennifer HAYES, Christopher LEE, WYLAND and Amos NACHOUM.

'Ocean Geographic' - its wonderful! Fabulous imagery, reproduction and features - pure class! I'm still enjoying it!

*Gemma Webster, Competition Officer
Shell Wildlife Photographer of the Year, The Natural History Museum, UK*

Join now as Charter member and you will be part of our quest for discoveries and a partner in the conservation of our ocean planet. You will be eminently recognised for sharing our vision with your name inserted in all future editions of Ocean Geographic and in the web domain of Ocean Geographic Society.

Membership Benefits:

- Four issues - Ocean Geographic Journal
- Free pass to the World Festival of Underwater Pictures - Antibes
- Free Master pass to 'Celebrate the Sea Festival'
- Ocean Geographic Limited edition print - (Dec 2008)
- Membership to OneOcean Alliance Frequent Diver program - 1000 bonus points
- Australia and Singapore A/S\$50 per year
- Charter Member International: USD88 (airmail) or
- Classic One year subscription for Ocean Geographic - USD 68 (airmail)

www.OceanGeographic.org : www.OGSociety.org