

Review of the Nikon Coolpix 8400 & Ikelite Housing

by Dave Harasti

I have been playing with camera's underwater for about ten years and a couple of years ago I went digital and purchased the Nikon Coolpix 5000. After two years of playing with the CP 5000 underwater and being fortunate enough to obtain some decent shots I made a decision to upgrade to a new system. The primary reasons for wanting to upgrade the CP5000 was because of the shutter lag delay, slow write times for raw files and I wanted more pixels so I could enlarge images to A3 size with minimal resolution loss. Plus all my photography buddies were upgrading to bigger and better cameras so I had to keep up!

After much deliberation I ended up choosing the Nikon Coolpix 8400 as my new camera. One of the key factors in my decision was the announcement by Ikelite that they were in the process of developing a housing for the camera. My CP5000 is used in an Ikelite housing and after 400+ dives with the Ike housing it still functions as new. I've never had a problem with it over the past two

years so hence I had no hesitation in purchasing another Ikelite housing.

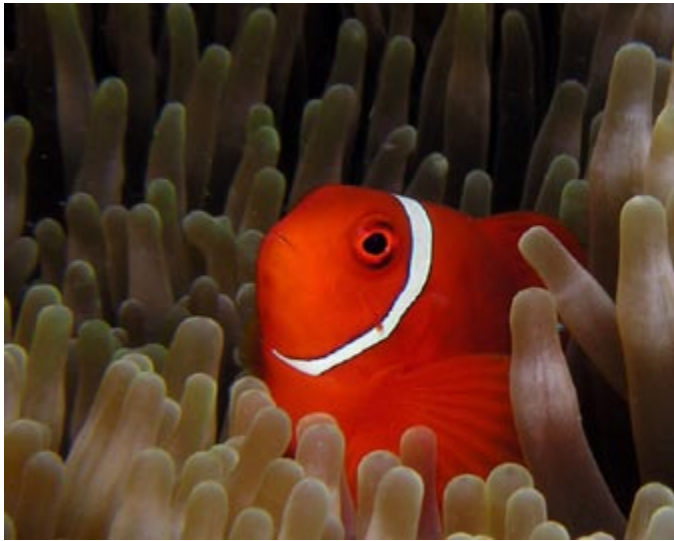
The Camera

The Nikon CP8400 is an 8 mega pixel camera with a 24mm lens. This lens is currently the widest on the market for the pro consumer digital cameras and makes it ideal for underwater use. The 24mm lens allows you to get closer to your subject and the closer you get to the subject the less water in front of the camera which equates to a cleaner sharper image. It also allows you to capture large marine life such as sharks and Potato Cod without having to move back to fit the animal in. Additionally, by getting closer to the subject it allows more sufficient use of artificial lighting such as external strobe(s).

The auto focus on the CP8400 is quick and the shutter lag is minimal;



Short Tailed Ceratosoma nudibranch. 1/500, f7.7, ISO50, spot metering – Single DS125 (low power)



Spine Cheeked Anemonefish. 1/1000, f7.4, ISO50, spot metering - Single DS125 (low power)

images will more than likely lack quality. Automatic settings may be suitable if you are just starting out in digital underwater photography so that you can get used to the whole process however the sooner you master the manual controls the better the images will be.

There are two small constraints with the camera that need to be worked around when using it under water:

- In low light conditions I found that the auto focus would freeze the LCD screen on a moving subject and hence the camera shutter fire was delayed (by as much as 2 seconds). I have found the auto freeze can be a problem on night dives but if it becomes an issue you can switch to manual focus, this reduces the problem. During the daytime it wasn't an issue as there was ample light.
- The macro function on the CP8400 is good however you cannot zoom in all the way in macro mode similar to how the CP5000 performed. It will

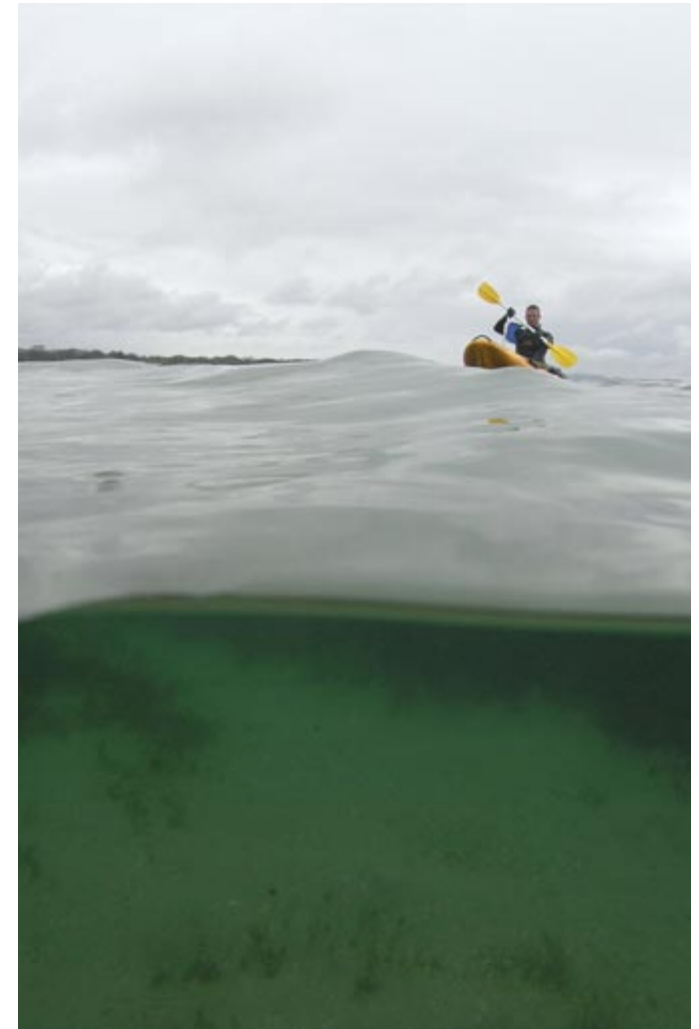
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Mel (photographer's much better half) and seafan. 1/125, f5.1, ISO100, matrix metering - Dual DS125's (half power)

only stay in macro for one third of the zoom but it does have excellent macro (down to 1 inch) so the key is you must get real close if the subject is small. On the upside I found the Inon UCL165 macro lens works extremely well on the front of the Ikelite port so it is possible to photograph those tiny critters that are only 1cm in length. The CP8400 macro function enables you to fill the entire frame with any subject that is over 2-3cm's.

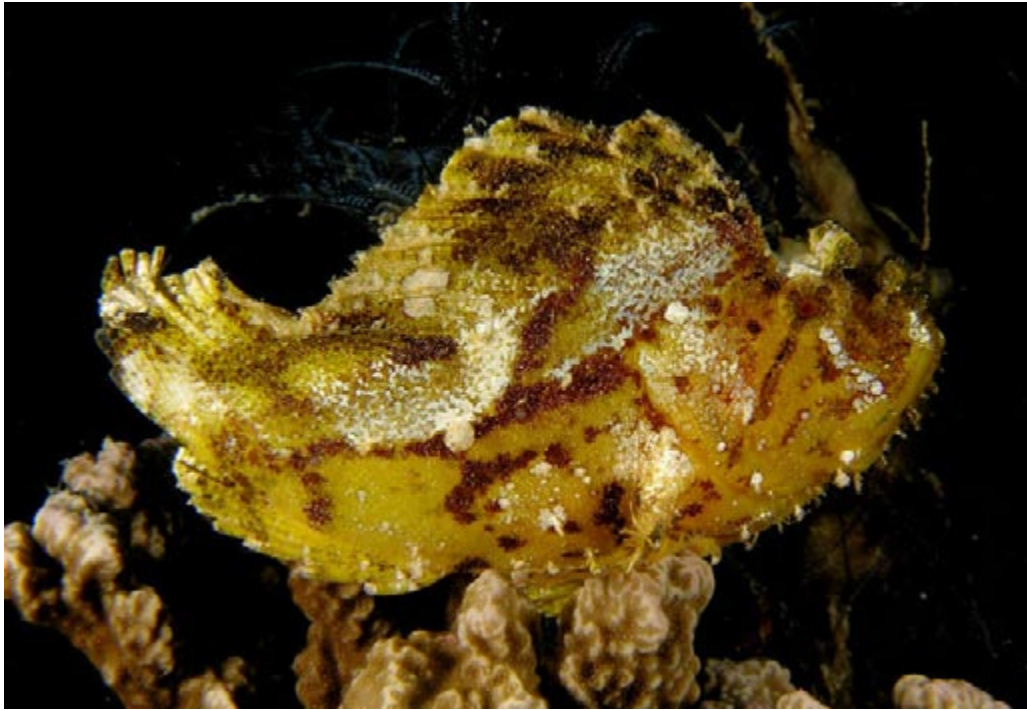
This camera produces noticeable noise at an ISO of 200 or above. I found that shots including blue water (or even blue sky) had a lot of noticeable noise, which would reduce the quality of the image. I would not shoot with an ISO of higher than 100 when using underwater as you will be disappointed with the image quality as a result of excess noise.



My first ever attempt at above/below shot utilising Nikon 18mm wide angle lens in Ikelite dome port. 1/250, f6.4, ISO100, matrix metering – natural light

The CP8400 has a new image setting that will save images as 'Extra fine jpeg'. The extra fine setting will save images at a size of approximately 4-7mb. If you take an average image size of 5mb, a 1GB compact flash memory card will hold approximately 200 images. Images can be produced





Juvenile leaf scorpionfish. 1/1000, f7.4, ISO50, spot metering - dual DS125's (low power)

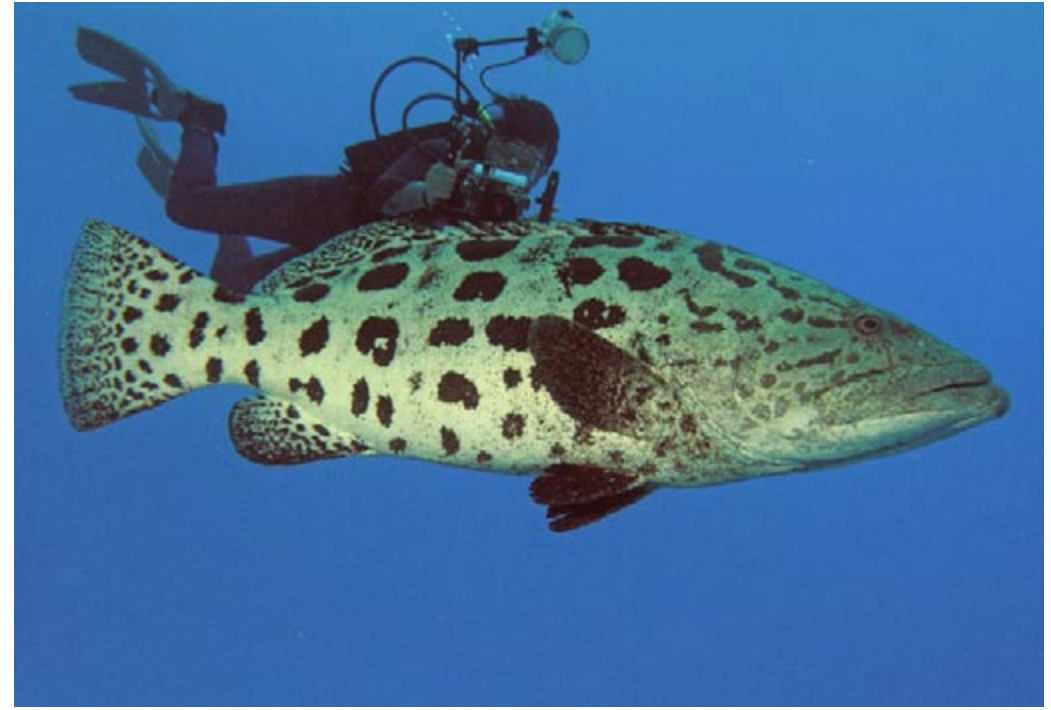
at a resolution of approximately 3264 x 2448; this resolution size is suitable for printing images up to A3 size. Experimenting with a Lexar 1GB compact flash card (80x speed) I calculated the following write times for the highest resolution:

- RAW File - 8mb = 8 seconds
- Tiff File - 8mb = 14 seconds
- Extra Jpeg - 8mb = 2.5 - 3 seconds
- Fine Jpeg - 8mb = 2 seconds

I have found that the battery in the Coolpix 8400 will last for at least 150 minutes, easily long enough for two 'standard' dives.

Ikelite Housing

As usual Ikelite has come up with the goods with their housing for the CP8400. When I first saw the housing I was surprised at its size, it was much smaller than I thought it was going to be. It's actually slightly smaller than the housing for the CP5000 even though the CP8400 camera is larger in size than the CP5000 camera. When putting the camera into the housing you need to pull out the AE Lock to slide the camera into place. The housing with camera weighs approximately 2.5 kilos.



The Potato Cod at the Cod Hole on the GBR are quite large!: 1/250, f4.5, ISO100, centre-weighted metering - Dual DS125's (low power)

The Ikelite housing provides complete control of the CP8400 and all camera features can be accessed with the push of a button or the turning of a dial. The housing is moulded of corrosion free clear polycarbonate, which allows inspecting the o-ring seal and making sure all the housing buttons are touching the camera buttons correctly. Being able to look at the o-ring seal is one of the best features of the Ikelite housings as it's reassuring to see the o-ring is actually in place and

working. I suggest dipping the housing in water briefly (1 or 2 seconds) before commencing a dive to ensure the housing is sealed correctly. The housing is rated to a depth of 60 metres, which is more than adequate for recreational diving.

The Ikelite housing comes standard with two handles and a baseplate. I know some photographers remove the baseplate to create an even smaller profile however I leave it on as I find it's useful to rest on the bottom to steady your shots as well

as making it stable when kept on land or on a boat. An excellent feature with the two Ikelite arms is that they allow quick release of the strobes at the touch of a button; much easier than having to manually screw strobes to a baseplate.

The recommended retail price for the CP8400 housing is US \$750 and the optional dome port for the Nikon WCE-75 Wide Angle Lens is available for US \$250 (rrp).

Lighting

The built-in flash of the CP8400 can be used for underwater photos; however, its range is limited so an external light source is recommended (I use dual Ikelite DS125 strobes). A bulkhead is included with the housing to allow use of optional sync cords and external strobes. TTL is not currently available with the CP8400 just yet as the camera utilises the newest Nikon iTTL flash control. Ikelite is currently in the process of finalising their new strobe development to allow Ikelite strobes to shoot in TTL. However, when I was using the CP5000, which has full TTL capabilities, I still preferred to shoot the strobes manually, utilising the 10 power settings on the Ikelite manual controller as it gives much greater control over the lighting in your image.

When you have a strobe

connected via sync cord you must have the internal flash of the CP8400 popped up; otherwise the external strobe will not fire. Fortunately, you can turn the internal flash off through the menu settings. When using the sync cord, make sure you turn the internal flash off.

Wide Angle Photography

The 24mm lens gives excellent coverage; however, it is possible to get greater coverage utilising the optional Ikelite port with dome lens that allows use of the WC-E75 Nikon wide conversion lens. The design mounts the lens in the port without using the conversion lens adapter tube. This allows the camera to be removed and installed freely in the housing without removing the wide-angle lens.

Additionally, you can attach external wet lens such as Inon and Epoque to the front of the Ikelite 8400 housing; however, there are limitations with the use of these lenses compared to the Nikon lens. There are generally problems with vignetting using these lenses (black shading in the corners). If you already own an external wide lens, then I'd try it out on the housing; but if you're in the market for wide angle coverage, I'd suggest purchasing the Nikon WC-E75 wide angle lens utilising the additional Ikelite dome port.



I was curious to know what I looked like underwater on the KISS rebreather so I handed the camera to my wife. 1/125, f4.1, ISO100, matrix metering – natural light

Conclusion

If you are in the market for a top of the range pro-consumer digital camera, then the CP8400 can be considered an excellent purchase. It is a step up from the popular Nikon CP5000 and the Olympus C5060 and is an excellent alternative for those that don't want to outlay the cost on a digital SLR underwater set up. With the CP8400, you can do macro and wide angle on the same dive and

you can use the additional wet lens with the Ikelite housing to increase the macro or wide angle functionality. This is a great set up that has the ability to produce excellent underwater images.

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S-TTL. THE END OF AN ERA.

Digital underwater cameras have been a real breakthrough for divers. Offering instant feedback to speed up your learning curve, user friendly features like auto exposure and autofocus, zoom lenses with macro built right in and negligible shooting costs, digital seems the perfect solution for underwater imaging.

Until you add a flashgun. Then the nightmares and confusion begin. Especially when it comes to getting the exposure right. With many guns you have to shoot manually. Often this means taking several test shots to get it right. Something you may not be able to do with a moving subject. Auto guns can help, but you need a camera with a fixable equivalent film speed and lockable aperture to use these properly.

Inon's D2000 puts those problems firmly in the past. It uses the best flash exposure system in the world to get your lighting exactly right. Your camera's own flash meter. Accurate, dependable and affordable, the Inon D2000 marks the end of an era. The end of poor flash photography.

Welcome to Inon. Simplicity through sophistication.



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