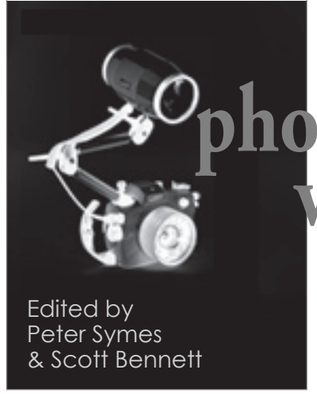


photo & video

Edited by
Peter Symes
& Scott Bennett

Ian Heslop coming to take a photograph of a turtle in the northern Red Sea. Specs: 20mm lens, ISO 100, Twin Sea&Sea YS110 flash, 1/125th second at F8

Digital Camera Choice

Text and photos by Lawson Wood

So, where do we start? And what type of camera do we buy? Should we go for the DSLR (Digital Single Lens Reflex)—basically a digital version of the old single lens reflex (SLR) camera where you compose your photograph through the lens of the camera—or should we go for a compact *point-and-shoot* camera, which has *live-view* screening.

DSLR cameras have interchangeable lenses, and all require a waterproof box, or housing, with suitable controls to use the camera to its full potential. (Actually, we NEVER, EVER use a digital camera to its full potential. Camera manufacturers should listen to what underwater photographers require and produce a relatively cheap, high resolution camera with very few controls and no extra bits, which will always remain consigned to the manual under, "Forget this bit. You are not clever enough.")

The other type of camera, which comes in two different versions, is the manufactured PHD cameras (Press Here Dummy). These are essentially *point-and-shoot* cameras with a large continuous viewing screen on the back, so you are actually composing your photograph by use of the *movie screen*. Most of these types of camera require a waterproof housing, and these are usually made specifically for the camera models by the camera manufacturers.

A few of these digital cameras are actually amphibious and do not require a waterproof housing. All of these types of point-and-shoot cameras also have the ability to shoot video directly onto the memory card. I have seen some amazing digital film of animal behaviour captured, whilst I could only take a still photograph on my super-duper-state-of-the-art DSLR.

What to look for

DSLR's are produced by a large number of manufacturers, and the relative models all have interchangeable lenses. Most will even be able to use your old lenses from your now obsolete film cameras. If you used Nikon in a previous life, then chances are that you will use the new Nikon DSLR's. The top of the range is the Nikon D3X with a 24.5 megapixel reproduction. Similarly, if you were a Canon or Olympus camera user, then chances are you will do so again in the future. The new Canon EOS-1 Ds Mk3 has a whopping 21 megapixel full-frame sensor and beats just about everything else hands-down.

Sea&Sea YS-17 with DX-1200 Strobe

Sea&Sea DX-2G with YS-110a Strobe

Sea&Sea MDX-40D with Dual YS-110a Strobes and YS Converter

Point-and-shoot cameras by Nikon, Canon, Olympus, Fuji, Casio, Sony, Kodak, Pentax, Sigma and just about everyone else in-between, all have a superb range of cameras with dedicated housings, and most have a high megapixel rating to ensure nice crisp images when they are reproduced.

Whilst the photograph of Ian and the turtle is in essence a *close-focus-wide–angle* photograph, I include it to illustrate the size of the DSLR and the housing, plus external flash and arm. The camera is undoubtedly set on auto-focus as my dive partner, Ian, has the camera extended at arm's length and angled in towards the turtle. By partly depressing the shutter release, he is able to *lock on* to the subject with his Canon camera, and by further pressing the shutter, he can take the photograph, thus firing the external flash whilst keeping everything in focus.

Advantages of DSLR

- Basically, what you see is what you get; you are able to compose your photograph *through the lens*.
- When the camera is switched on, it is instantly ready for use.
- There is no delay in taking the photograph.
- You can utilize interchangeable lenses to suit your photographic subject.
- You are able to follow action sequences with quick bursts of photos at around five or six frames per second.
- The battery life in DSLR's is very efficient, as it shuts down unwanted processes between taking photographs, but is instantly available at the slightest press of the shutter button.
- They are able to utilize large capacity memory cards, and most have large megapixel rendition for ultra-sharp photography.

Disadvantages of DSLR

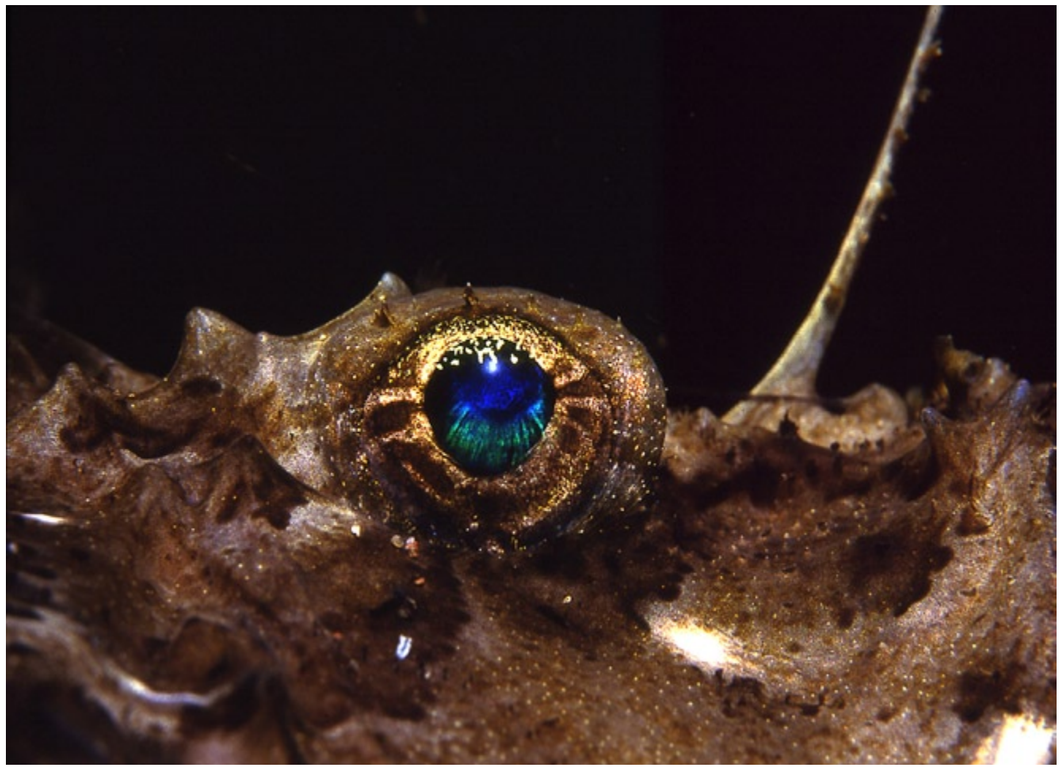
- Large and bulky
- Expensive
- Newer models continually coming on the market
- Expense of camera housings and ports to suit the variety of lenses
- Expense of additional flash system and connecting arms (more money!)
- Require additional lenses (even more money!)
- Once a lens choice has been made, it cannot be altered underwater.

Advantages of the compact camera

- Small and compact
- Lightweight
- Some compact cameras are totally amphibious, thereby not requiring a waterproof housing.
- Relatively cheap compared to DSLR's
- Inexpensive camera housings, usually by the camera manufacturer
- Ability to add on supplementary lenses to the outside of the camera housing, therefore greatly increasing its capabilities
- Ability to add on external flash, which is fired as a *slave* from your in-camera flash
- Most compact cameras have the ability to record sound and record digital video directly onto the memory card.

Disadvantages of the compact camera

- The battery life of a compact camera is greatly reduced due to the *live-view* screen on the rear of the camera. Using the internal camera's flash also further reduces the battery life.
- Camera housings are usually not very robust, and care must be taken with the camera controls.



Specs: 105mm lens, 100asa, 1/125 second, single Sea&Sea YS180 flash at F.16

Diver Reeta Tunney in a cavern in the northern Red Sea holding a Compact Camera. Specs: 10mm lens, ISO 100, Twin Sea&Sea YS110 flash, 1/80th second at F11. Note the size of the compact camera and waterproof housing that Reeta is holding

- Most do not accept external flash arrangements.
- There is a delay in the camera's performance whilst switching on.
- There is always a delay in taking the photograph, thereby perhaps missing *the action shot*, or point of the photograph.
- Some cameras do not offer the RAW feature for picture capture.

Which ever model you decide to invest in, you can be sure that it will already be out of date by the time you master its complexities. If you are already a digital camera user, then it is much better to stick with what you have for now and learn your craft before spending the money, not just on newer and better models, but on all of the ancillary equipment that comes along with it. Big memory cameras also need big memory back-up, such as large memory cards, super-fast computer processing and terabytes of memory, to store your photographs safely.

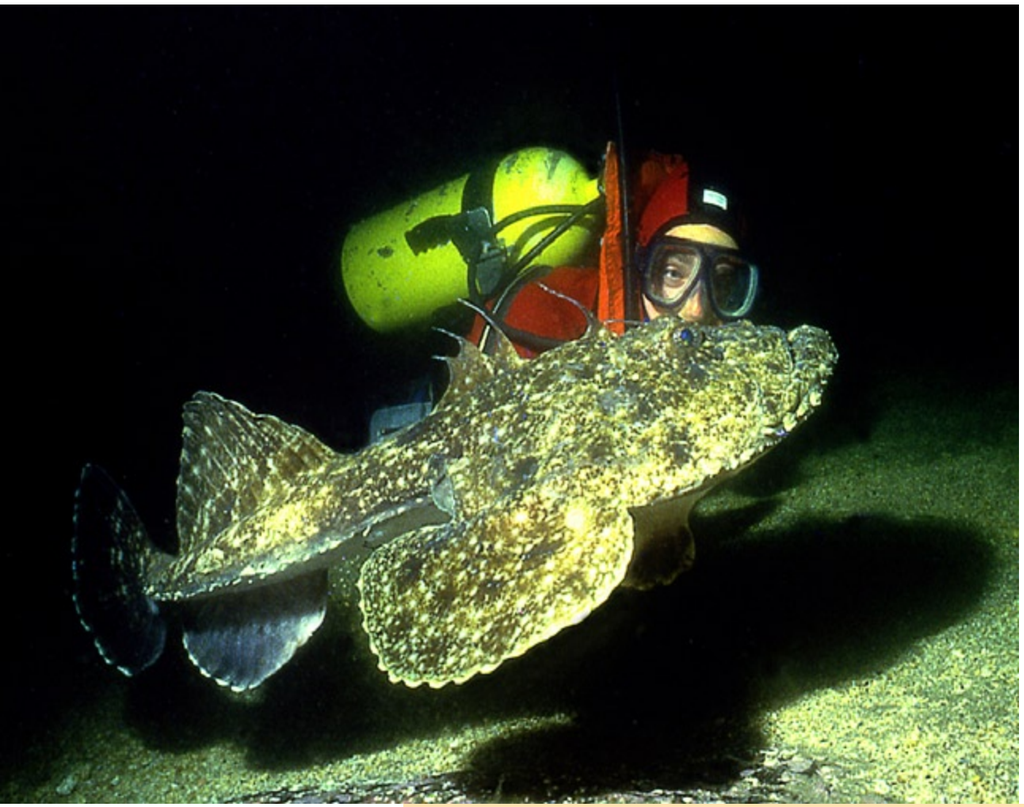
For all you pseudo-professional photographers with your big mega-bucks DSLR camera and lens, plus housing, plus flash combo and arms, I would recommend that you also carry a compact camera that is set to digital video, with the maximum size card available, simply because I have missed recording so many bahavioural scenarios that would make David Attenborough weep, being unable to record the action with a still camera.

As always, versatility is the key. Being able to change from extreme close-up to wide-angle at the switch of a button, or turn of a dial, would be on everyone's list of *must-haves*. There are a number of zoom lenses that do increase your capabilities, but for the most part, once you have decided on the prime lens you are using for whatever type of photography you want, you are stuck with that lens for the entire dive.

What then happens is your wallet has a heart attack, and you buy a second more advanced super-duper-all-singing-and-dancing DSLR, and you take both of the cameras and housings and flash in at the same time. One camera fitted with a close-up lens, the other with wide-angle. Wow!! What just happened? Now, I need twice the memory on my computer and hard drives and twice the amount of time to do any post production and captioning of my photographs!

Do I stick with the 105mm macro lens or should I carry another camera system with a 15mm wide angle lens and thereby take in the whole scene of the anglerfish and my dive buddy, Neil?

Lawson Wood was raised in the Scottish east coast fishing town of Eyemouth and spent his youth exploring the rock pools and shallow seas before learning to scuba dive at the tender age of 11. Over 44 years later, he has been fortunate to make his passion his career and has authored and co-authored over 45 books, mainly on our underwater world. Wood is a founding member of the Marine Conservation Society, founder of the first Marine Reserve at St. Abbs in Scotland, and made photographic history by becoming the first person to be a Fellow of the Royal Photographic Society and Fellow of the British Institute of Professional Photographers solely for underwater photography. ■



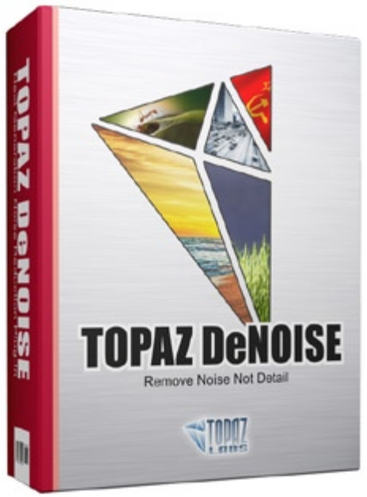
Diver Neil Finlayson with Anglerfish or Monkfish (*Lophius piscatorius*), St. Abbs, Scotland
Specs: 15mm lens, 100asa, 1/80th second, single Sea&Sea YS350 flash at F5.6

Seahorn Snoot

Constructed from aluminum and PVC, the Seahorn Snoot enables your favourite strobes to concentrate diffused light onto a small area. With a length of 14cm without attachments, the 35-degree angle beam opens up a new world of creative lighting possibilities for macro photography. In addition, three additional attachments are available: 15.5cm with honeycomb attachment (5.5cm opening for light), 21cm with macro attachment (2cm opening for light) and 29cm with super macro attachment (1.5cm opening for light). Weighing in at a mere 242 grams, the Seahorn Snoot is available for a wide range of strobes including Ikelite, Inon, Sea&Sea, Patima and 10bar. Cost: US$60.00 plus shipping. For further information, visit: **www.scubasymphony.com**

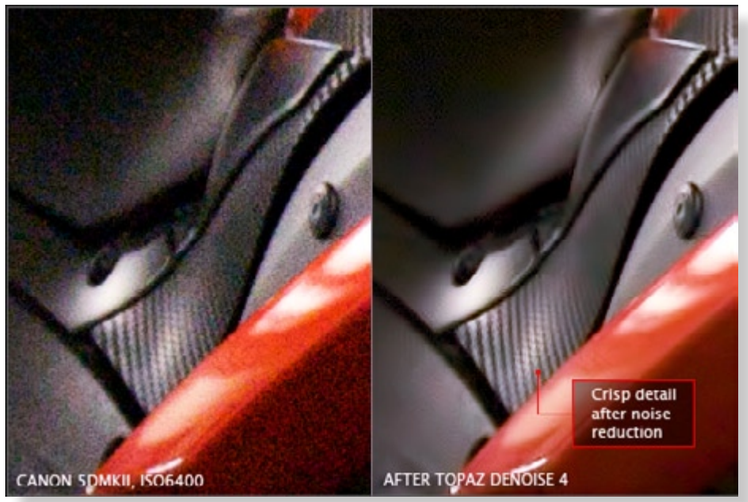
Aquatica Dome

Aquatica introduces the BK-7 coated glass Mini Dome 100. The newest addition to Aquatica's burgeoning line of ports, the Mini Dome 100 is ideally suited for fisheye lenses such as the Nikon 10.5mm, Tokina 10-17mm and Sigma 10mm. Constructed from grounded BK-7 mineral glass, the Mini Dome 100 boasts a diameter of only 100mm (4 inches). Rated to a depth of 90m, the reduced frontal signature allows an extra close approach for close-up wide angle subjects, providing extra room to position strobes for that perfect shot. Optical anti-reflection and scratch-resistant coatings are included at no additional cost. Travelling underwater photographers will appreciate the lightweight and compact size, especially in these days of increased travel restrictions. Set for release in Spring 2010, the Mini Dome 100 will soon be made available for use with other housing brands. Suggested retail price: US$699.00. For more information please contact: **info@aquatica.ca**



Topaz Labs releases DeNoise 4

Topaz Labs announces "IntelliNoise," a new proprietary noise reduction technology that makes its product debut in the newly upgraded software program, Topaz DeNoise 4. IntelliNoise analyzes patterns in the entire image to discover underlying detail and to recover it in the final result. Inhouse tests have shown that up to four stops of noise can be eliminated while maintaining image detail and sharpness. Available as a plug-in, the software works with a variety of host programs including Photoshop, Aperture, and Lightroom for Mac and Windows. Topaz DeNoise 4 with IntelliNoise is a free upgrade for existing DeNoise customers and retails for US$79.99. For more information, visit: **www.topazlabs.com/denoise**



Ikelite

Ikelite has announced its housing for the Canon HF-20, HF-21 and HF-200 video cameras. Rated to a depth of 60m, Ikelite's robust polycarbonate design enables full view of the camcorder and control functions, with the camera's large LCD screen clearly visible through the housing back. The included UR/Pro Color Filter provides color correction in tropical blue water with available sunlight up to 80 feet (24 meters). An optional filter #6441.81 is also available to achieve more natural tones in green water settings. The housing port is threaded allowing the use of the optional #6420 Ikelite lens or 67mm threaded wide-angle and macro lenses available from other manufacturers. The base removes instantly with a unique toggle clamp for traveling or attaching of the optional Pro Video Lite 3 battery pack. The handle assembly detaches from the housing by removal of just two nuts for packing. **www.ikelite.com**

Aquatica port adaptors

In a bid to attract potential customers, Aquatica has announced the addition of two new port adapters, the first in a planned line of accessories to help future users migrate to the Aquatica system. The first accommodates the Subal older generation ports (type 3). As it fits inside the Aquatica bayonet, it does not add any extension, and all lenses normally associated with their ports can be used starting from the Nikon 10.5mm. The second will accept Sea & Sea NX generation ports. While adding a mimimal amount of extension, it has been calculated to accommodate the popular Tokina 10-17mm without restriction. **www.aquatica.ca**