

Wide Angle Zoom Macro

by Mark Webster

Underwater photography, in common with most things in life, is full of coincidences. I read with interest the article in the last issue of UWP by Alex Mustard and Jeff Hartog on their trials with fish eyes and fish eye zooms with teleconverters as this echoed my own recent experiments.

Like many other photographers I am considering an upgrade (some former film users may say return) to a full frame camera from my present DX equipment. Although I am probably waiting for the promised D700X I have been following the ideal lens debate with some interest. One of the FX problems is the performance of the rectilinear zoom lenses in particular the 14-24mm which seems to be very difficult to set up behind a dome. If you have been using the Tokina 10-17mm on DX then you will very disappointed at the prospect of losing the flexibility of this lens on full frame. However, the solution that Jeff has been experimenting with is to use this lens with a 1.4X teleconverter which produces a range similar to the 14-24mm zoom. I had been following the results of Jeff's trials with curiosity on the Wetpixel forum.

This started me thinking about how this lens would behave on a DX format with a teleconverter for close focus wide angle images and I was surprised to find that with a 2X teleconverter I could focus on something surprisingly small as well as medium sized wide angle subjects. So it was time



for some experimentation in the water but first of all I needed a zoom gear with an extension in order to use the lens in my Subal housing. Being an obsessive horder, I have a box full of old zoom gears and assorted bits from numerous housings and lenses and I was delighted to find that a combination of an old Hugyfot aperture spacer ring (Nikon F2A!), a home engineered 105mm extension sleeve and a 60mm manual gear provided exactly what was needed.



Tokina 10-17mm zoom with 2X teleconverter and zoom ring mounted on D300.

(Left) The medium wide end of the lens is suitable for reef scenic shots and CWFA compositions. Nikon D300, Subal ND20, 10-17mm FE zoom, 2X teleconverter, Subtronic Mini flash guns, ISO100, f11 1/60.

(Below) Larger macro subjects like this lobster spider crab are also ideal for the zoom range. Nikon D300, Subal ND20, 10-17mm FE zoom, 2X teleconverter, Subtronic Mini flash guns, ISO100, f11 1/60.





Each of the nudibranchs in this image are 12mm or less in length, distance from the dome to the subject approximately 50-60mm. Nikon D300, Subal ND20, 10-17mm FE zoom, 2X teleconverter, Subtronic Mini flash guns, ISO100, f14 1/25.

One of the concerns that I had was the potential for poor auto focus performance as this lens is a f3.5-4.5 and adding a 2x converter could compromise this. On this score I was pleasantly surprised to find that even in low light the lens had little trouble in focussing and locking onto subjects either very close to the lens or at a distance of 1-2m. Another pleasant surprise was just how close I could focus on a subject and the level of magnification produced.

My primary subjects for this experiment were some small nudibranch species which are found in large numbers mating in spring and early summer on some of my local dive sites. These nudibranchs are only 12-24mm in length (1/2" to 1") and so were a good subject to test the theory on. As can be seen on the accompanying images the larger species are quite dominant in the frame and still leave enough



If a larger subject turns up, like this John Dory approximately 350mm in length, then the lens will operate as a medium wide angle zoom. Nikon D300, Subal ND20, 10-17mm FE zoom, 2X teleconverter, Subtronic Mini flash guns, ISO100, f8 1/25.

of the wide background to include a sunburst or a reef background. Almost like a double exposure from our film days in the finished image.

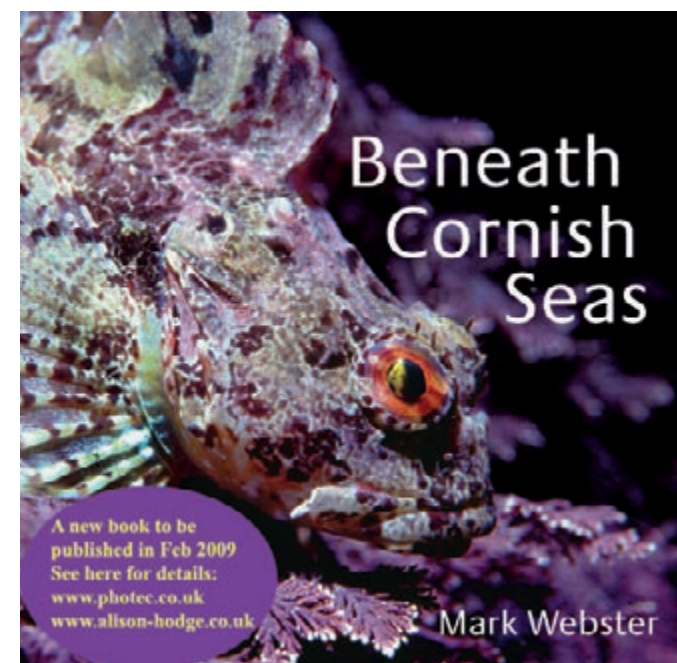
You will of course need to use an extension ring and a small dome to take similar images. For these shots I used a 35mm extension ring and an old Subal DP54 which was originally designed for the Nikkor 20mm lens. You do not need a full fish eye dome as the angle of view of the lens has been reduced dramatically (approximately 90-100 degrees at the wide end). However, you do need this much smaller shallow radius dome to enable you to get close enough to the subject and to be able to light it.

Despite losing the extreme wide angle properties of the lens the zoom range is very useful. You can capture subjects between a true macro reproduction and medium sized subjects and when

a larger subject turns up you can still capture it with your now medium wide angle lens as can be seen from the other examples here.

Whether you like the resulting macro images is of course down to personal taste. But the message should be to keep messing around with unusual lens combinations and never throw out those old bits of gears etc.! This was a little like turning the clock back to my early full frame film days when I produced similar compositions with a Nikonos 15mm lens and extension tubes. It worked well but positioning the subject and knowing when you had sharp focus were nowhere near as easy as with this combination, which also has the added flexibility of a zoom range.

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