

Macro Wideangle

by Alex Mustard

I realise my title an oxymoron. The alternative was teleconverter-fisheye. Sometimes coming up with new ideas requires a little unhinged thinking. Sometimes imagination is more important than knowledge. But most of the time it isn't. I always enjoy trying new ideas, techniques and kit in an effort to produce different types of underwater photos. But I'd be the first to admit that success is like gold dust. Luckily, it is only the ones that work out that I write about in UWP.

This article is about my experiments during the last 9 months using fisheye lenses in conjunction with teleconverters to create macro photos with a wide angle perspective. I very much consider this a work in progress. This article is not a finished set of instructions to a plug and play technique, but I hope that the lessons I have learned are useful should you want to try it too.

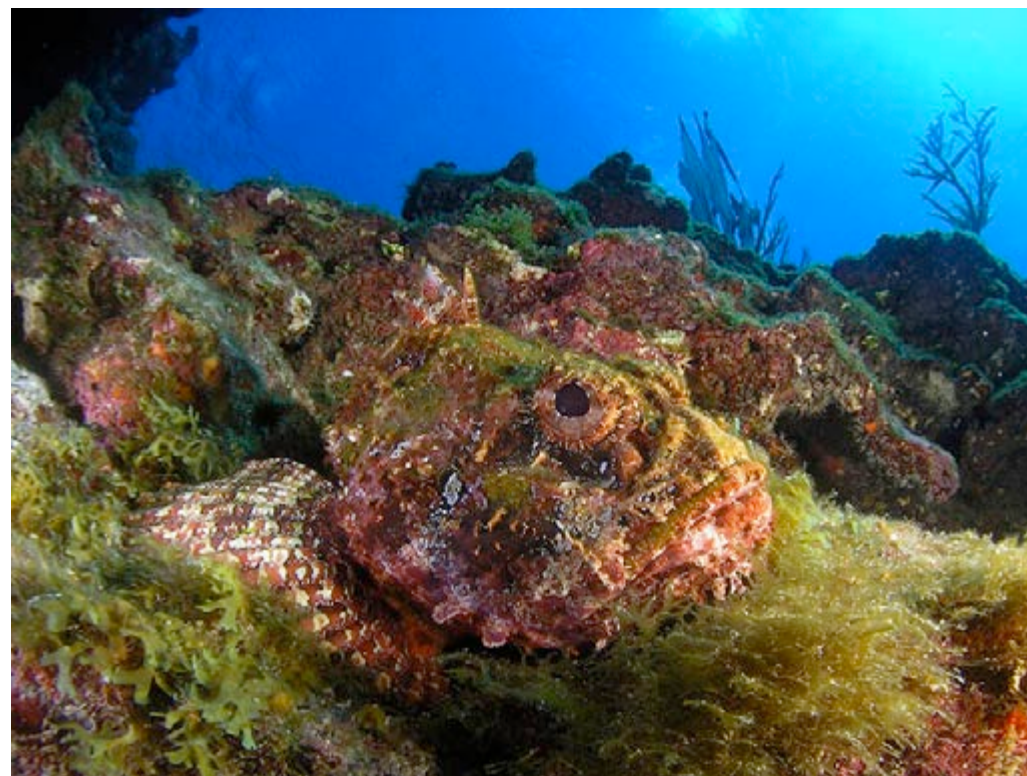
My main aim for trying this approach came from a desire to broaden my critter portfolio. Macro lenses are obviously the best tools for shooting these subjects, but put together a talk, a portfolio or an article and macro critter shots soon become

samey, lacking visual variety.

My first attempt was to try critter dives with normal wide angle lenses, both fisheye and rectilinear. They helped, but unsurprisingly only produced standard wide angle views – photos of the environment with a critter in it. Nice natural history shots, but lacking in impact. What I wanted was a technique that could give me bona fide macro detail view of a subject in the foreground, with the background clearly communicating the environment it is living in.

I must also admit that much of my desire for this type of image came from seeing the photos I had produced when I tried digital compacts with wide angle lenses. Many compacts have excellent close focus, and when used in combination with a wide angle lens they enabled me create exactly this type of image. The downside was that the image quality from these cameras was great for slide shows and home printing, but lacked the image quality needed for publication. I needed a way to duplicate this style of image with my DSLR.

My solution was to experiment mounting my close focusing Nikon 10.5mm fisheye lens on



My motivation for this technique came from compact shots taken with wide angle lenses very close to subjects. I wanted to reproduce this look on my DSLR. Olympus 5060. Inon UWL 100 with dome. 1/160th @ F8. INON Strobe.

various teleconverters – until I was able to achieve high foreground magnification while still maintaining a wide angle of view. I settled on using the 10.5mm with a 1.5x Kenko teleconverter, which allowed me to photograph my car keys filling most of the frame in the foreground, while still letting me get most of the camera shop in as a background. This felt about right for most critters!

Underwater this setup proved

ideal for some of the larger critters. Most nudibranchs are just a bit too small, but frogfish, ghostpipefish, scorpionfish, octopus etc were spot on. A major advantage was that the wide angle lens and very close focus made the water look very clear, even when it wasn't.

To see if the images could really cut it as close-ups, I entered one in a close-up themed competition at the British Society of Underwater

Photographers – to see whether an audience of my peers would accept the photo as a proper close-up shot. The picture won.

The biggest drawback of this technique is that to get the magnification you must get very, very close to the subject. And I mean close – just a few cm away from the dome. Using this setup quickly makes you realise that we already use the most suitable lenses for underwater photography!

So the first challenge is finding cooperative subjects. Not as easy as it sounds. You have to be prepared to sacrifice high productivity per dive for a few special images. Dive site choice makes a big difference too: on a muck dive there are usually plenty of candidates, but on a normal reef dive I have really struggled. Also if you are diving with this setup you have a higher potential to scare your subject away. Often it is best to find your own subjects or at least wait until everyone else has finished – if you scare a great critter off you will not be popular with the rest of the



An early test shot with a seahorse. The macro-wide-angle technique allows me to get macro details on the subject, while still getting a feeling of the environment it lives in. Nikon D2x + 10.5mm + 1.5x teleconverter. Subal. 1/25th @ F6.3. Dual Subtronic strobes.

group. That said, I have found most creatures are willing as long as you choose the right subject and invest in a careful approach.

Luckily this setup does not preclude shooting normal wide angle (albeit at the reduced coverage of the fisheye with the teleconverter attached) and on several occasions I have ended up doing this, frustrated at a lack of suitable macro subjects. The teleconverter does not stop the lens focusing on

distant subjects: the biggest subject I have shot with it was a passing submarine!

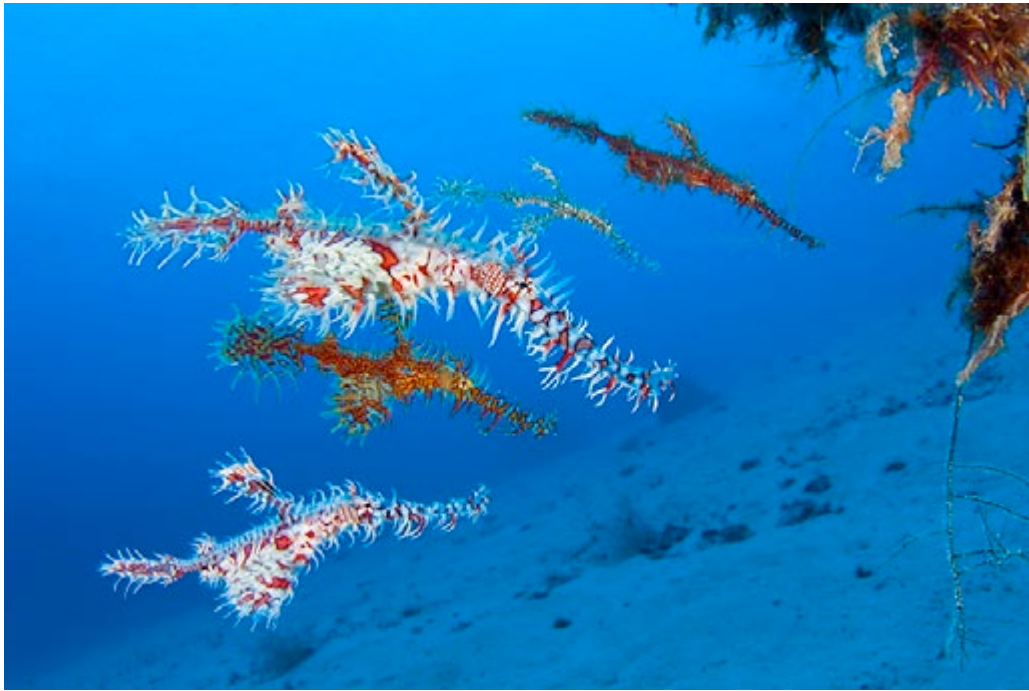
The main challenge with the macro-wide-angle technique is lighting. I use two different lighting configurations depending on the positioning of the subject. Lighting is simplest when the subject is swimming or sitting up on a sponge or lump of coral. Here I use a standard macro front lighting – with two strobes either side of the port, often angled



Larger critters, such as this medium sized stonefish, are much easier to shoot than very small critters. Also without such a need for high magnification, the details in the background are much more pleasing. Nikon D2x + 10.5mm + 1.5x teleconverter. Subal. 1/25th @ F7.1. Dual Subtronic strobes.

This technique is best lit with strobes balanced with ambient light Nikon D2x + 10.5mm + 1.5x teleconverter. Subal. 1/25th @ F7.1. Dual Subtronic strobes.





When subjects are above the seabed they make lighting much easier. For these ghostpipefish I just used standard macro front lighting. Nikon D2x + 10.5mm + 1.5x teleconverter. Subal. 1/15th @ F10. Dual Subtronic strobes.

slightly in. Lighting is tougher when the subject is resting on the seabed, as is often the way with muck diving critters. In this case I use top-down lighting, positioning the strobes with the arms going straight up from the housing, with the strobes pointing down at the subject. The advantage of this approach is that it creates an even pool of light right across both the foreground and the main subject. If I use front lighting in this situation it always burns out the sand closest to the camera.

The final development I have incorporated is to use a small dome port because I find it makes it much easier to get light onto very close subjects. This is not essential, and if you just want to give this technique a try then use a standard dome (with the appropriate extension ring for the teleconverter). It is also worth mentioning that because of the very small camera to subject distance you do not need powerful strobes. I usually have mine set down on 1/8 or 1/16.



If the subject is on the seabed, like this mimic octopus, then top down lighting is best as it stops the seabed in the foreground from burning out. Nikon D2x + 10.5mm + 1.5x teleconverter. Subal. 1/40th @ F8. Dual Subtronic strobes.

As with all high magnification photography, depth of field is limited and it is important that you focus precisely. Usually when we shoot wide angle we can be a bit lazy with focusing. Not here. If you allow the point of focus to lock just behind the subject, then the depth of field may not save the photo. Backgrounds are not always pin sharp, but there is still enough detail there to clearly communicate a sense of the environment.

This technique is primarily a

balanced light technique and as a result you have to trade off between depth of field and exposure time. Generally, since the subjects are non-moving and the camera is usually resting on the sand, I am prepared to use long exposures in order to get a bit more depth of field (you can see the settings in the captions). But care must be taken to avoid blur from camera shake or subject movement. This technique is also effective on night dives, where you don't have to worry about balancing ambient light.



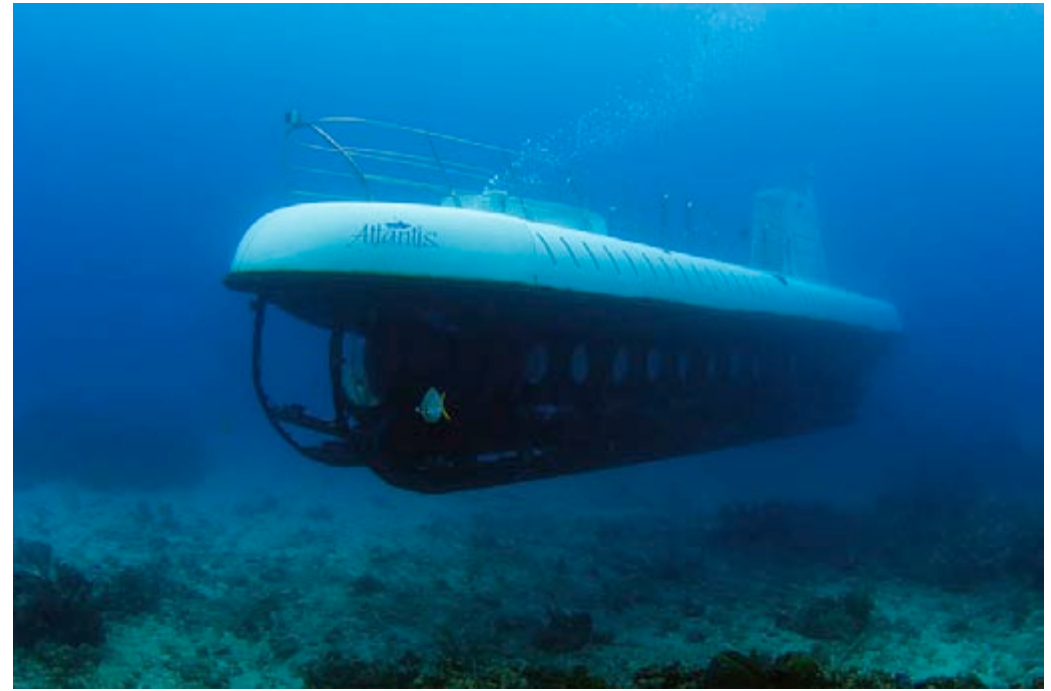
The technique is also suited to night dives, particularly for shooting medium to large species, such as this 50cm (1.5 ft) epaulette shark. Nikon D70 + 10.5mm + 1.5x teleconverter. Subal. 1/40th @ F8. Dual Subtronic strobes.

Personally, I think that this technique is better with small cameras and housings. Smaller housings make it easier to get the camera down to the eyelevel of the critter when it is on the sand. Probably, the ideal way to employ this technique is with a second camera and a camera-sherpa. Alas, I do not even have a second camera body, let alone a housing or sherpa! The advantage of the second camera approach is that you can shoot normal macro until you find the perfect creature for macro-wide-angle. This

overcomes the major frustration with this technique – the lack of suitable and cooperative subjects.

As I said at the start, this is still work in progress. I have yet to do a dedicated critter diving trip with it, and I haven't even found a well positioned frogfish when I've had the lens on my camera. I would also like to experiment more with different strength teleconverters.

That said, I'm already convinced that this technique has an important role in my muck diving photographic



The teleconverter does not limit photography of large subjects. I was even able to photograph this passing submarine. D2x + 10.5mm + 1.5x teleconverter. Subal. 1/30th @ F6.3.

arsenal. It provides excellent portraits of animals in their environment and allows me to shoot wider scenes, ideal as opening shots for critter portfolios. I am very happy to say that this was one occasion when a seemingly crazy experiment has paid off. If only it always did!

Alex Mustard
www.amustard.com

