

Mucky Thoughts from Lembeh

By Mark Webster

Tropical reef diving is wonderful and perhaps offers the most appealing conditions for underwater photography with often crystal clear waters and an abundance of colourful subjects. In fact many divers, and some photographers, do not dive under any other conditions and regard temperate or turbid waters as strictly off limits. If you live in the UK or another temperate location then you will know all about photography in challenging conditions, although we are occasionally blessed with good visibility. Diving in these conditions hones your photographic skills and prepares us for unexpected poor visibility when travelling to more exotic destinations.

However, we do sometimes expose ourselves to turbid conditions in warm waters quite deliberately. If you have been to the Lembeh Strait, or any other classic muck diving location, you will know that the experience is somewhat addictive simply because of the fantastic diversity of subjects this location offers. Having just returned from my fourth visit to Lembeh I realise that I still yearn for more despite the sometimes difficult conditions for

photography. So what is the appeal of Lembeh and how can we overcome the problems that turbid conditions present?

The reason for the immense diversity here are the nutrient rich waters which means there are high levels of plankton year round which not only reduces visibility and light levels, but also presents the opportunity of including lots of backscatter in our images. You will also encounter sand and silt in the water column, particularly close to the seabed, which may be the result of strong currents or the activity of your fellow divers, but whatever the cause we need to try and minimise the

Cuttle fish – a cuttle fish may seem almost a mundane subject for Lembeh, but they can be very co-operative.

This one can see its reflection in my dome port and got quite excited until it reached and touched its reflection and was left a little confused I think. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, ISO 100, f11 1/25. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, Subtronic Mini flash guns, ISO 100, f11 1/25.



Dive boats at Lembeh Resort – Nikon D200, 18-200mm zoom, Programme mode.



impact in our images. The majority of the subjects in Lembeh Strait are bottom dwelling critters which often display remarkable camouflage either for predation or defense and this can compound the problems.

Buoyancy control is critical in these sandy and muddy conditions if you wish to reduce the seabed disturbance for yourself and fellow photographers. The first requirement is to optimize your weights so that you can use your BCD effectively and then learn to use breath control and minimal fin movement to control your position when shooting close to the seabed. An invaluable tool to help you to hold position, seen throughout Indonesia but especially in Lembeh, is the pointer or prod. This is simply a piece of stainless steel rod typically 2ft/60cm in length (sometimes longer) which you can use to hold position in the sand or rubble. This enables you to keep yourself off the seabed and reduce the need to fin when there is a current as well. If you do not have one then you must buy one as soon as you arrive!

Strobe positioning is of course crucial to controlling backscatter and, whilst it is tempting to leave your strobes in a fixed position in close up and macro photography, it is wise to consider the lighting angle with each new subject. This is sometimes a challenge as the guides are often

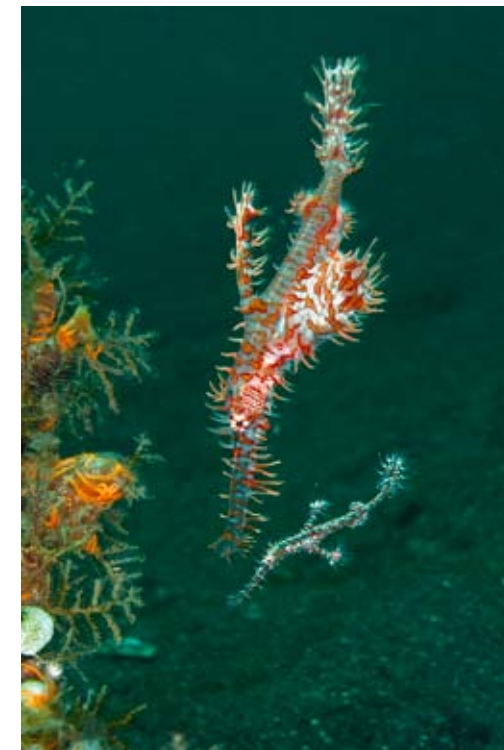
finding a new subject every few minutes and if it is your first visit here then you will want to try and record them all. These subjects range in size from true macro (say 1"/24mm in length) to larger fish like scorpion fish, frog fish and ghost pipe fish. So the distance to your subject is also changing with each new subject which will impact strobe positioning.

If you have only one strobe then the classic angle of 45 deg from the side of the camera towards the subject works well for stand off distances of 1-2ft (30-60cm). We are trying to position the cone of light from the strobe so that the edge of it illuminates the subject and not the water and suspended particles between the lens and subject. As you get closer to the subject you will need to move the strobe closer to the camera and try to envisage the cone of light. You may find that you end up pointing the strobe directly ahead or even a little away from the subject in order to use the edge of the beam. When the distance to the subject is only a couple of inches or a few centimetres then you may have to point the strobe directly at the subject, perhaps from above, in order to illuminate it effectively, but at these distances backscatter should be less of an issue.

With dual strobes the same procedure applies, but now you need



Hairy squat lobsters – some macro subjects like these squat lobsters are found elevated from the seabed, in this case on a barrel sponge. Backscatter from disturbed sediment is less of a problem which allows you to concentrate on the best way to light the subject without casting shadows. Nikon D300, Subal ND2, 60mm micro, Inon Quad flash, ISO 100, f16 1/125.



Ornate ghost pipe fish – these spectacular looking fish are normally found with crinoids or gorgonians and are very patient subjects. If you want to capture the whole critter in the frame then their really is only one composition as they normally hang vertically like this. Using a slow shutter speed will include some natural light or you could make tighter compositions of perhaps just the head and vary the orientation. Nikon D300, Subal ND2, 60mm micro, Inon Quad flash, ISO 100, f16 1/125.



Star gazer – this is one subject you will shoot down on as they live buried in the sand and are normally only seen emerging at night. But if you ask your guide for one then they can easily find you one in a seemingly barren patch of seabed. Nikon D300, Subal ND2, 60mm micro, Inon Quad flash, ISO 100, f11 1/60.

to try and envisage the two cones of light and the way they will intersect on the subject. The objective is again to try and avoid illuminating the water and particles between the subject and lens. Small strobes are ideal for the close up and short stand off distances in Lembeh, but you can also use larger wide angle strobes effectively as well. Bringing your strobes in close to either side of the port/camera and pointing them straight ahead will work well, but again you must be

aware of the change in distance and subject size. You may find it necessary to diverge the strobes or point them a little away from the subject in order to use the two beam edges. Ring flash uses this same beam edge principal, although the light surrounds the lens, and works well at stand offs of up to 1-2ft/30-60cm although much will depend on the design of your particular unit.

Because many so many of the critters are on the seabed the



Giant frog fish – this mated pair were sitting on the seabed close to a pile of junk. Apparently they are long term residents at this site, although there were no yellow sponges close by to mimic. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, ISO 100, f11 1/25. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, Subtronic Mini flash guns, ISO 100, f11 1/25.

temptation is perhaps to shoot down on the subject which will often demonstrate the efficacy of the camouflage but may not produce a powerful or descriptive image of the subject. The real challenge is to try and get some separation between the subject and its habitat so that a viewer can see the detail of the strange critter. We can sometimes achieve this by looking for subjects which may have contrasting surroundings but

this is rare here, so the best solution is getting as low as possible with the camera to try and exclude the majority of the background or position the subject against open water. This may be difficult to achieve in some circumstances if there is other marine life around your subject and you also need to be aware of other critters that may give you a nasty surprise when you settle onto the seabed – look out for Inimicus scorpion fish in particular



Striated or Hairy frog fish – this is perhaps the most spectacular species of frog fish which can be quite difficult to photograph well particularly when they are very hairy to match the surrounding collections of weed like this example. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, ISO 100, f11 1/25. Nikon D300, Subal ND2, 10-17mm FE zoom + 2X teleconverter, Subtronic Mini flash guns, ISO 100, f11 1/25.



Bargibanti pygmy seahorse – these cute little seahorses are still a must have image for most photographs and, like clown fish, are hard to resist no matter how many images you have of them. They are challenging as they are so small, requiring extra magnification, and can be difficult to light well. Nikon D300, Subal ND2, 105mm micro, Inon wet lens, Inon Quad flash, ISO 100, f16 1/125.

which are plentiful here and, whilst they are a great subject themselves, you do not want to make contact with them! Sometimes it is necessary to shoot the subject 'blind' if you cannot get your eye low enough to see through the viewfinder or screen, which can work quite well with a little practice. Having a 45 degree viewfinder can be a bonus in these situations.

If it is not possible to get low enough for effective subject separation then try playing with the angle at which you light the subject in order to create some stronger shadows. This will define the subject more effectively but of course this may also increase the amount of backscatter recorded. You can also soften and blur the background by opening up the aperture to reduce the depth of field. This will require good control of the flash power and if your guns do not have sufficient settings then either pull them back further from the subject or reduce the power with diffusers.

Of course not every subject is bottom dwelling and critters like ghost pipe fish (often in crinoids and sea fans), pygmy seahorses and a number of free swimming fish do make life a little bit easier. Shooting larger subjects clear of the seabed still presents the same backscatter issues but you should not need to deal with

disturbed sand and sediment so much. There are also small subjects like whip coral gobies and shrimps and the hairy squat lobsters found on barrel sponges which are elevated from the seabed.

Tiny subjects like pygmy seahorses and crinoid squat lobsters and shrimps offer a different challenge. You will need additional magnification for these subjects, perhaps 2:1, which requires additional wet or dry diopters or perhaps a teleconverter if you are using a DSLR. As you are so close to these subjects backscatter will be less of an issue, but you will still need to concentrate on your lighting angles to avoid casting shadows on the subject from crinoid arms or sea fan branches.

It is worth bringing your wide angle lens or mid range zoom here as well to shoot some of the larger subjects in their habitat. Combining a fish eye with a teleconverter is a popular technique for getting very close but you will also need a smaller dome to do this effectively. Lighting these wider images can be even more challenging and you are almost certainly going to have to spend some time removing at least some backscatter in post processing.

Although conditions are challenging here and at other true muck locations all this is forgotten when you are presented with such an

amazing selection of subjects. The other big plus is of course that the majority of them are sessile and will completely ignore your intrusion, probably assuming that you cannot really see them. So your subject is not likely to move off which gives you the opportunity to explore the various lighting techniques, angles and exposure for each.

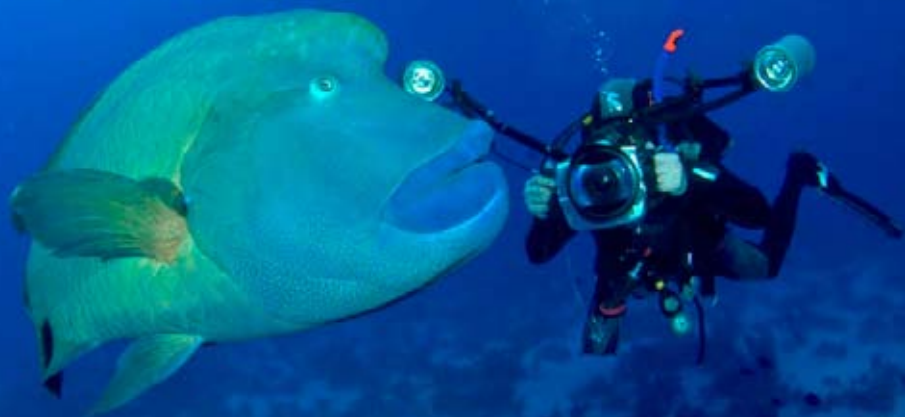
If you have not been to Lembeh Strait yet then you should put it high on your must visit list. It is now getting busier with a number of new resorts opening in the last couple of years but there are, at least for now, more than enough dive sites and critters to keep everyone happy.

Trying to perfect your lighting when you capture the image is what we all strive for, but don't let it dampen the pleasure of the moment as there is always Photoshop and Lightroom to help you save the day!

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Underwater Photography Workshops with Mark Webster 2010



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Bikini Atoll is now closed once again. But you can take a dive trip for just \$4.95 and see the majesty of the "Nuclear Fleet!"

GHOST FLEET



Expanded Version!

An eBook by Joseph C. Dovala

of BIKINI ATOLL

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