Underwater Photography

a web magazine from Ocean Optics

Oct/Nov 2001

1984- 2001

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Nikonos? Subal? Nexus?

Bonica Snapper

£129 from Ocean Optics

Photographer?

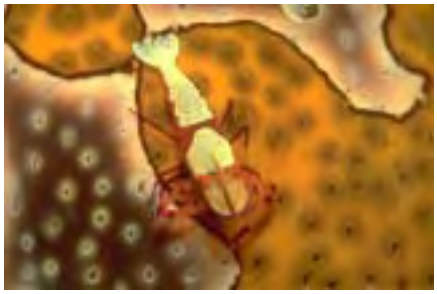
Andrew Pugsley

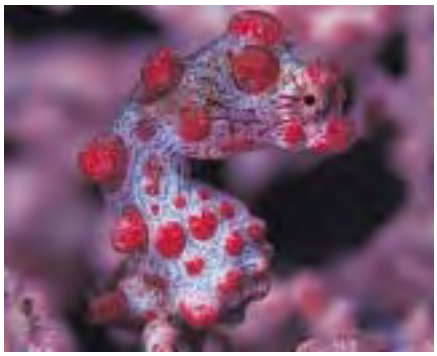
Ocean Optics Saturday staff

Tel 020 7930 8408 Fax 020 7839 6148

Underwater Photography

a web magazine
from Ocean Optics
Oct/Nov 2001
e mail uwp@uwpmag.co.uk





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From the publishers of DIVE MAGAZINE

Editorial

NIKONOS V camera body to be discontinued

Nikon have finally confirmed that the Nikonos V is to be discontinued. It will bring to an end the production of one of the most amazing range of cameras the photographic world has ever seen.

Nikonos cameras have been responsible for some of the most memorable images taken underwater over the past 40 years. Their demise will be sorely missed but I will always own at least one Nikonos V and one Nikonos 111 for they are, to me, irreplaceable.

Nikon are letting us down gently as the production is to be phased out rather than halted abruptly and they say that production of lenses and accessories will continue for the time being. Spare parts will be available for many years to ensure that the Nikonos V can be serviced and repaired.

I suppose it was inevitable as the digital world takes over but the Nikonos V has earned a special place in the carrying cases of most underwater photographers.

For those interested, here is the press release from Nikon.

"Nikon Corporation will stop making the NIKONOS-V camera body in the near future. Regional Nikon distributors and importers can be contacted for details as to when the product will be discontinued.

A customer base of divers and underwater photographers have favored this camera since it was introduced in 1984.

In light of relatively low sales volumes for this niche product in an age of growing operating cost-consciousness, however, Nikon determined that it could not continue to justify the cost and effort of specialized production required to manufacture it in small quantities.

We are sorry for any problems that this may cause, and ask you to understand our need to make this decision.

Nonetheless, Nikon remains proud and appreciative that the NIKONOS-V has enjoyed a long, distinguished product life.

Although the company has no current plans to introduce new underwater photography products, we will continue to stay abreast of the market for next-generation underwater cameras.

Although Nikon will discontinue manufacture of the NIKONOS-V camera body, it will continue to supply accessories for the NIKONOS-V, including interchangeable lenses, speedlight, close-up outfit unit, etc., at least until the end of 2002. At a later date, the company will decide whether or not to continue offering these accessories in 2003 and beyond. "

Over 9400 downloads!

On a brighter note, the first issue of UwP has been downloaded over 9400 times!

The statistics were downloaded from the web site on 22nd September and I'm absolutely amazed. It is far beyond our expectations and part of me feels it can't be true so if there is anyone out there who understands how these statistics are produced we would love to hear from you.

Over half of the downloads came from America which may indicate how much more they use the internet.

It would be a great help to know how you found out about UwP. When you get a chance could you e mail me

peter@uwpmag.co.uk

and let me know how you found us. Many thanks and I hope you enjoy Issue 2.

Your feedback is always appreciated to help us produce what you want from Uwp. E mail us

feedback@uwpmag.co.uk

BBC Blue Planet

As we go to press(?!) the third programme in the BBC Blue Planet series has been transmitted on British TV. I'm not sure whether it's being transmitted worldwide yet but if not, you are in for a treat.

Billed as possibly the last blockbuster natural history series it cost £7 million and took 5 years to film. The 3 principle cameramen were (in alphabetical order) Doug Allan, Rick Rosenthal and Peter Scoones. They and series producer Alistair Fothergill are to congratulated for all their hard work as are all those connected with the series.

Peter Rowlands
Editor
UwP

NEW LOOK FOR VISIONS 2001

October 27/28th 2001

Visions in the Sea, the annual, two-day underwater photography conference staged in London by Ocean Optics, will have a new look for 2001.

Now in its fifth year, the conference at Imperial College, Exhibition Way, South Kensington, on the weekend of October 27 and 28, will focus on specific aspects of underwater photography, including understanding light, creative flash, innovative close-up techniques, finding the picture, how to capture fish on their best behaviour and wreck photography.

The speakers dealing with these topics include:

Linda Dunk

Linda Dunk, the first woman chairman of the British Society of Underwater Photographers. She won BSoUP's open portfolio competition in 1994, 1995 and 1996 and was second in the Society's beginners' portfolio competition in 1993. Having enjoyed being in the business of taking pictures of the marine world for over ten years, Linda is keen to encourage more women to become active in this challenging but rewarding field.

Martin Edge

Martin Edge, who has a great passion and flair for teaching the skills of underwater photography and, probably more than any other person today, has improved the general standards of taking pictures in the sea. His book, "The Underwater Photographer", is now in its second edition and continues to be a popular guide to successful underwater photography. Martin has led innumerable photo expeditions around the world.

Mark Webster

Mark Webster, an established underwater photographer and photo-journalist, has an impressive list of successes in international events and has represented the UK four times at the CMAS World Championships of Underwater Photography, winning silver and bronze medals and third position overall in 1996 plus two top ten placings in 1998, the latter year in which first book, "The Art and Technique of Underwater Photography", was launched. During the last ten years, Mark has hosted regular photography workshops in Red Sea and has gained a reputation for passing on his skills and advice in an informal and productive manner.

Paul Kay

Paul Kay, British underwater photographer of the year in Dive Sights 2000, runs underwater photography courses and workshops with an emphasis on the understanding of the basic photographic techniques relating to underwater photography. Living in North Wales, he is a great enthusiast for diving in British waters as well as warmer parts of the world. He has been a freelance photographer for over 11 years and works in industrial and illustrative photography, produces stock landscape, environmental and underwater images and writes illustrated articles.

Charles Hood

Charles Hood, won the top prize and the title of underwater photographer of the year in Dive Sights 2000. He is constantly experimenting and breaking new ground with his approach to taking images in the sea and has a vast experience of taking pictures in British waters as well as overseas. He was one of the first to use two synchronised TTL flash guns underwater and took numerous awards at BSoUP and other international competitions before changing his focus to taking pictures that sell.

Alex Mustard

Marine biologist Alex Mustard, a new speaker at Visions, has a natural eye for a good picture as well as the scientific background to be able to find and photographic all types of life in the sea and to make his dives particularly productive. He uses his marine biological knowledge to enhance his photography and will be be passing on the secrets of his success by describing his approach

to photographing life on coral reefs. He believes that greater knowledge of the animals found on coral reefs and how a coral reef ecosystem works will add an extra dimension to our photography.

Jack Jackson

A highlight will be a talk on adventure photography by Jack Jackson, who has worked everywhere from the Arctic to the tropics, both on land and underwater. He is a regular contributor and lecturer at the London and Birmingham dive shows as well as travel shows in London and top venues in Europe and the Middle East. He is the author of hundreds of magazine articles and 14 books, eight of which deal with underwater subjects.

Nigel Motyer

Nigel Motyer is an engagingly irreverant underwater photographer whose self deprecating style belies an immensely successful portfolio. Nigel is highly respected as a natural history photographer. His work ranges from the local waters of the Emerald Isle to high octane diving in Cocos, where he received his first sharkbite. Nigel is widely published with images in Dulken, Tauchen, Diver, Dive, Sport Diver and Sub Sea Magazine and has extended his international reputation with third place in the Blue Dolphin competition and second place in the World Underwater Photography Championships .

Constantinos Petrinos

This year, the first day of the conference will conclude with a social evening during which popular Greek photographer Constantinos Petrinos, who is gaining a growing international reputation, will launch "The Realm of the Pygmy Sea Horse", a coffee table book of photographs and information about the marine life in Kungkungan Bay and the Lembeh Strait. As well as talking about the five months during which he took 25,000 pictures, Constantinos will describe the trials and tribulations of publishing the book himself after disappointments with several publishers.

There will also be slide clinics conducted by the speakers, a slide corner where delegates will be encouraged to show a selection of their work, and a print competition.

Imperial College is well served by public transport, being a short walk from South Kensington Underground Station and several bus routes.

Do not delay. Reserve your place at what will be yet another of the UK's biggest and most memorable underwater photographic events.

VISIONS IN THE SEA 2001 - booking form

Please reserve ..... place(s) for me for the underwater photographic conference at Imperial College, London, on the weekend of October 27/28, 2001.Delegate fee for attending the two day conference, including morning coffee and afternoon tea each day as well as a buffet lunch -- £99.95.

· A social evening with Constantinos Petrinos in the Holland Club, Imperial College, from 6.30 to 8.30pm, after which a cash bar will remain open for delegates who wish to remain. Additional fee of £10.00 includes two glasses of wine. Crisps will be available from the bar.

Please give name(s) of delegates and also list any special dietary requirements:

Name .....

Address.....

..... Amount.....

For payment by Visa or MasterCard please give the following details: Type of card: Visa or MasterCard

Number:..... .....Expiring on.....

Bookings can be made by phoning the conference hotline - 020 7930 8408 or fax 020 7839 6148.
Ocean Optics, 13 Northumberland Avenue, London WC2N 5AQ.

Underwater photography events

Beneath The Sea 2002

Beneath the Sea 2002 announces its 26th Annual photo/video competition and for the first time international Invitations.

Win the coveted David Doubilet award for excellence in underwater photography or the equally distinguished Stan Waterman award for underwater video.

In addition to the David Doubilet Award for excellence in underwater photography, the winning photographer will also win a trip for two with Nekton Diving Cruises.

The winning underwater videographer will win, in addition to the Stan Waterman Award for excellence in underwater videography, a trip for two aboard the Nimrod Explorer diving the Great Barrier Reef in Australia.

Come one . Come all . To the Beneath the Sea 2002 Photo/Video Competition.

The contest deadline is December 31st, 2001.

For contest rules and entry blank visit Beneath the Sea at their Internet site:

http://www.BeneaththeSea.org

There you can see the images of previous winners, get a set of rule and regulations, and download an application form.

There is a contest hotline: (718) 409-0240

Photo/Video Competition
Multi - Media House
103 East 86th Street
New York City, New York 10028

Contact: Maria Hults
Phone: (212) 876-2639
Fax: (212) 876-1630
E-Mail: mediahouse@att.net

If you would like an underwater photo event publicised, please e-mail details to events@uwpmag.co.uk. This is a free service we offer to photographers and photographic organisations so why not take advantage of the publicity?
Next publication date is 1st Dec 2001. We would also like to hear from anyone who has relevant dive sites news for underwater photographers i.e. a new E6 processing facility, photo course etc.

Web watch

Here are a few interesting sites to get this section started. Please let us know if you have any favourite sites which provide useful information or entertainment for underwater photographers. email webwatch@uwpmag.co.uk

Each issue we'll promote a particularly good site and this issue it is

http://www.ianskipworth.com/suig/links.html

Nudibranchs

http://www.a4454.freeserve.co.uk/scotnud1.html http://www.pictonb.freeserve.co.uk/nudibranchs/
http://www.seaslugforum.net/ http://www.bunaken.fsnet.co.uk/sulawesi.htm

Underwater photography groups

England: The Northern Underwater Photography Group http://www.nupg.org.uk
British Society of Underwater Photographers http://www.bsoup.org

America http://www.laups.org/ http://www.sfups.org/ http://www.ncups.org/
http://www.dups.org/ http://www.underwater.org/ (Great links to 14 other Societies)
http://dmoz.org/Recreation/Outdoors/Scuba_Diving/Underwater_Photography/Clubs/
http://www.mauiscuba.com/uwphoto.htm (Good links to other u/w photographers sites)
http://www.scubaduba.com/photography/nfphotoorganizations.html
http://scuba.about.com/cs/uwphotosocieties/

Competitions

http://www.uwimages.org/competition.htm

Underwater photography forums

majordomo@world.std.com
Put the word help in the body of the message.
The automatic server will send you the information you need to subscribe.

Please let us know if you have any favourite sites which provide useful information or entertainment for underwater photographers

e mail webwatch@uwpmag.co.uk

New products

C-1 Underwater digital photography for everyone

The Olympus Camedia C-1 is set to impress. Besides offering extreme user-friendliness, this compact innovation also features numerous functions and delivers quality images for great price-performance.

As a result, the C-1 is the perfect model for those who don't necessarily possess a technical background and are primarily looking to take good, enjoyable digital photos.

The PT-008 underwater housing is waterproof to 30 metres and follows the tried and trusted design of previous Olympus housings.

All of the camera controls are accessed by simple push buttons.

Camera features

1.310.000 pixel 1/3.2" CCD . Single focal length, equivalent to 35mm and 1-2x seamless digital zoom . Bright lens F2.8 . Optical real-image viewfinder . TFT LCD monitor, 3.8cm . TTL System Auto Focus . Exposure compensation +/-2EV Easy arrow key operation . 110(w)x62(h)x34(d), 165g (without batteries and SmartMedia Card) USB storage class and TV interface

The C1 and PT008 housing are available from Ocean Optics. Tel 020 7930 8408 http://www.oceanoptics.co.uk

PT 005s housing

Olympus keep coming out with new housings! The PT 005S houses the following cameras:

Olympus Camedia 2020, 2030, 3030, 3040, 3000.

As with all other Olympus housings, they are waterproof to 30 metres and have push button access to all of the cameras controls.

For further details please contact Ocean Optics. Tel 020 7930 8408. http://www.oceanoptics.co.uk

Subal Quad flash port

Ocean Optics have produced a special macro port for Subal housings which is smaller than the standard Subal version and also takes the Inon Quad flash.

Made from hard anodised aluminium, the Quad port has an optically flat glass port and a special groove to retain the flash firmly onto the port.

A version will soon (early Nov 2001) be available for Sea & Sea housings.

For further details please contact Ocean Optics Tel 020 7930 8408 or e mail optics@oceanoptics.co.uk

Electronic leak detector

A British designed and built leak detector is now being fitted in Subal housings from Ocean Optics but they can also be fitted into almost any other housing. The small circuit board and battery holder measure just 28mm x 23mm x 12mm (h) and the power is provided by a single CR2032 lithium battery.

The extra bright LED flashes red when water bridges the two coated contact pins and gives you an immediate visual warning that all is not well inside your housing.

These leak detectors are so sensitive that they will be triggered by fresh water and could save you from a terrible disaster.

The standard leak detectors cost £65+VAT for you to fit and specials can be made to suit the designs of other housings. For example Ocean Optics have commissioned the redesigning of a standard version to fit into a Nexus housing because there is so little space inside that the battery must be remounted seperately from the electronics to avoid them snagging the camera.

Further details are available from Peter Rowlands

Tel & fax 020 8399 5709

e mail petedeb@globalnet.co.uk

Nikon F80 -

Breakthrough Technology At A Budget Price

There's no question that underwater photography is an expensive passion. This has been particularly true when setting up a housed camera. In an attempt to cut costs some companies have promoted low cost camera/ housing combinations that, ultimately, have failed to deliver or have quickly forced the user to compromise their photography or upgrade at further expense. Often these combos have had a limited shelf life and essential aftersales has quickly been withdrawn. Optics has been forthright in stating that if you want to really exploit the benefits of a housed camera you should not skimp.

Cheap combos save money by utilising entry level cameras. These are cameras priced similarly to a high spec compact and designed to sway less committed photographers into using SLRs. Camera manufacturers hope they'll upgrade to more expensive SLRs over time. Housing prices are usually similar whether you house a budget SLR or a semi pro camera. So savings often amount to no more than a couple of hundred pounds - negligible when compared to the overall costs of buying a system and travelling abroad to use it.

Now a new budget priced SLR looks poised to rock the staus quo. The Nikon F80 has replaced the underated but highly efficient F70. The F80 is simple to use for getting started but offers many outstanding features that will appeal to the serious user. The lightweight camera draws heavily on technology first seen on the flagship Nikon F5 and pro level F100. This includes a five point autofocus selector allowing the photographer to choose off centre autofocusing to aid composition. This is an especially valuable feature for

half and half shots which fool centre spot autofocus. Responsive command and sub command dials allow fast shutter speed and aperture selection, spot, centre weighted and matrix metering are easily selected and the camera also has an auto bracket feature. Extremely useful are independent exposure compensator controls for adjusting either background or flash power from the camera. Thoughtfully Nikon have even incorporated a

dial in archtectural screen to aid composition. Street price is just £330.00 - one third of the price the classic F90X started off at.

Complementing the F80 is the new N80 housing from Subal. Closely following the sleek design of the F5 Procase, co -developed with Kurt Amsler, this new housing has all the hallmarks that have made Subal the UKs leading brand. The aluminium body sculpts around the camera reducing dead space to a minimum. The shutter release is the smooth action paddle type seen on the F5 and F100 cases which reduces blurry images from camera shake, oversized dials link to command and sub command camera controls and push buttons select autofocus area, operate the viewfinder and top screen illuminator and let you choose bracketing, sunlight or strobe compensation and flash modes. Exposure mode, metering pattern, manual and autofocus choices can all be made underwater. Lenses can be removed in seconds through the housing front using the lens release lever. Complete with hand grips, Nikonos TTL socket and leak detector the body sells for £1399.00. Naturally routine servicing is provided in house.

Steve, Andrew and A.J. have all been using the F80 underwater and have been impressed. As always with Subal supplies of the new housing are trickling through and forward ordering is advised at present. The system will be on display at Visions 2001.

Steve Warren

Ring of Confidence

By Mark Webster

Imagine you are cruising the reef with your trusty housing and 105mm macro lens looking for small critters to fill the frame. Your patience is rewarded when you spot the most gorgeous triple fin blenny sitting in the perfect position in a small crack in the reef. You approach slowly thinking about lighting angles and avoiding shadows and begin to adjust your flash arms, loosening fittings or creaking your bendy arms into position. Adjust the aperture as you raise the camera to focus on the blenny and approach slowly - at that moment the blenny high tails it leaving only a puff of dust suspended in the water!

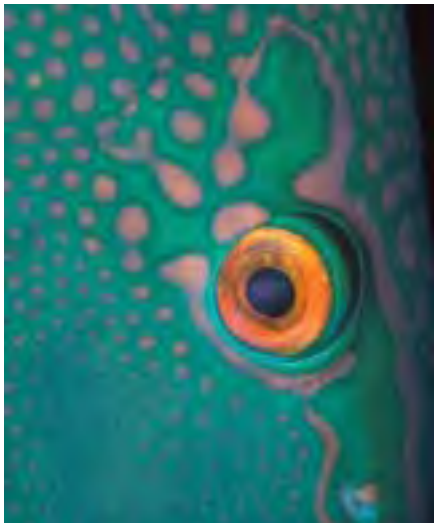
How often has this happened to you and why won't these fish co-operate and sit still?! The answer, for me, lies partly in the appearance of not only the camera and diver behind it but also the looming flash guns which are threatening to attack from the side. There is an answer to this problem but it flies in the face of one of the most basic lighting principles we have learnt in underwater photography.

I can recall several days way back in 1992 when I struggled to translate a German article in the now defunct UWF magazine which described the first commercially available ring flash made by housing manufacturer UK Germany. I seem to remember that Helmut Debelius had been using one for small fish photography, but at the time I naively dismissed the idea - surely this could only work in gin clear water otherwise all you will get is a frame full of the dreaded backscatter? Perhaps I should have improved my German at the time, but I forgot the idea until Visions in the Sea in 1999 when I listened to Martin Edge talk about his experiments with a ring flash prototype. This set me thinking again and I determined to experiment myself.

Before making a leap in the dark I decided to utilise some existing equipment and satisfy myself that this 'flat lighting' technique would work. My assumption was that backscatter may not be such a problem due to the extremely narrow angle of view of the 105mm or 180/200mm macro lenses and the proximity of the light source to the lens itself. With the aid of a small, sculpted port for my 105mm lens (courtesy of BSoUP member Ken Sullivan) I mounted two YS30's either side of the port and set to work in my local, and turbid, waters of Falmouth Bay. The results were excellent and I also discovered the joy of a compact point and shoot system, which seemed to be spooking the fish far less even with my clumsy approaches.

This was inevitably going to lead to an investment in equipment and it was at this point I happened to visit Ocean Optics and mentioned my attempts over a cup of coffee. With a flourish, Steve Warren produced a box from behind the counter containing what appeared to be the solution - a port mounted quad flash from Inon in Japan. This

"I have now been using the Inon Quad flash for nearly two years now and can honestly say that it has been a revelation."



was the only unit in the UK at the time and Steve convinced me that he had been saving this especially for me and suggested that I test it before coming to a decision - he had seen the look in my eyes and knew that I had already succumbed!

I have now been using the Inon Quad flash for nearly two years and can honestly say that it has been a revelation. Combined with my Subal housing and F90X the rig is compact and just slightly negative so it handles more like a Nikonos set up than a housing. Subjects which had eluded me in the past are much more approachable and there is nothing more to think of except stalking them - if you can see it through the viewfinder you know that you can light it even in the back of a hole - real WYSIWYG photography! The unit even has a focus light which comes on as you touch the shutter - this is more than bright enough, but it will eat the four AA batteries, so use sparingly or be prepared to use a new set with each film. I shoot mostly on TTL which is very accurate, although there is the choice of full, 1/2 and 1/4 manual powers and even a rotating mask which allows you to block one or two of the four flash tubes to create shadow and get creative.

I have also found that larger fish are also much more approachable and the lighting is excellent for those classic fish portraits with either a black or blue water background. Shooting at a distance of up to 1m (3ft) in reasonably clear water produces little or no backscatter, so you have to re-think those accepted basic rules we have all learnt about lighting angles. The lighting produced by quad flash may not appear to suit everyone, but the advantages far outweigh the drawbacks for me - so beware, if you are tempted to try one, you may get hooked!

Mark Webster

Author of
The Art and Technique of
Underwater Photography

http://www.photec.co.uk

The Cayman Islands

by Paul Ives

The three Cayman Islands - Grand Cayman, Little Cayman and Cayman Brac, are a British overseas territory. Although about as British as a pair of Levis or a Ford Mustang, they have long been heralded as one of the best diving locations in the Caribbean. So finding myself over there working as an underwater photography instructor seemed like a dream come true, and certainly seemed a million miles away from shooting advertising and commercial work in the UK!

So what makes these Islands so popular with divers, and especially underwater photographers? Certainly not the inflated prices! You could easily blow a whole week's worth of your instructor's wages (and hard earned tips) on one meal out and a few beers. Even the wealthy Americans can be seen popping into 'Hurleys' for a sneaky bit of self catering or dining at Burger King for 'a change'!

What does make these Islands popular for divers are the deep ocean currents and dramatic coral walls. In fact these islands are really sea locked mountains with some of their most beautiful scenery under the water's surface. But it's not just the colourful walls that make diving here so interesting, it's also the huge diversity of shallower dive sites and well known wrecks. The Cayman Island authorities are well aware of the treasure they care for. Strong foresight and a strong line on conservation has led them to create marine reserves and permanent mooring buoys on all permitted dive sites. Add to that year round clear warm water (certainly a treat for a seasoned dry suit diver!) and this really can be a diver's paradise.

Cayman is saturated with professional and well equipped diving schools and you would have no trouble finding an operator to suit your needs, but from a photographers point of view it gets even better ! With companies like Fisheye and Cathy Church providing a full menu of photographic services, from guided diving, private instruction on everything from an MX10 to a housed F5 system, E6 processing, and equipment rental, sales and service, it's all a long way removed from those isolated liveaboard adventures where even your backup camera doesn't want to work and there's nowhere for miles to hire a Nik 5!!

If all that does not satisfy your every desire, then the easy access to very deep water only yards from shore means there are many operators specialising in technical diving and rebreather technology. This could certainly add a new dimension to how you approach your photography.

Cayman walls are sheer, dramatic and covered with colourfull sponges and corals.
Housed f100 16mm fisheye with twin YS 120 flashes

I don't usually keep a record of exact aperture and shutter speed combinations these days - but always shoot on manual exposure, and usually use ttl flash except in difficult situations.

The pictures were shot with a Sea & Sea F100 housing or a Subal F90 housing, and I tend to like Ektachrome 100S for W/A shots and Velvia or Ektachrome 100VS for Macro stuff.

For me, one of the best features of Grand Cayman was the easy access to shore diving. Many dive shops have seafront locations and offer easy access to interesting and relatively unspoiled reefs all within a stone's throw of a bar ! Some of these offer great macro photography opportunities. If you're feeling adventurous some of the best wall dives can be found at the North West point of the Island (my favourite being Orange Canyon). These sites can be accessed from shore with a minimal surface swim when the wind is in the right direction. I personally prefer this approach to

The house reef off Sunset House has a 9ft bronze mermaid and a pair of friendly grey angelfish are always there to greet you.
Housed F100 16mm fisheye with twin YS120 flashes

Trumpet fish are common and found trying to blend into the reefs.
Housed F100 16mm fisheye twin YS120 flashguns

diving off the day boats as it offers the opportunity to really get to know the sites. I admit that this was easier for me as I could take off on my day off with a few full tanks in the back of the jeep and make several dives on the same site really 'looking' at and exploiting its photographic potential.

Most of my instruction was done on the house reef off Sunset House Hotel and after a couple of months I learned my way around the reef like it was my home town. Far from becoming bored with diving the same reef nearly everyday, it became like a welcome visit to my local bar, seeing friends that you know will be in the same seat or under the same rock and enjoying meeting those visitors that are just passing through.

This familiarity made you so relaxed that you really did start to see underwater. I suppose its a little like going on a scallop dive in a Scottish loch when for ages you just can't make them out in the silt , then all of a sudden you find one and realise they were there all the time, but you just weren't seeing them ! However it came to the point where I started to give my familiar underwater friends names and started to have underwater conversations with the 9ft bronze mermaid that lies just off the reef. This must have been the start of island fever !!

Grand Cayman is one of the few places where encounters with prolific marine life is all but guaranteed. It's possible to dive with a group of Caribbean reef sharks at the East end of the island. Although it's not a full blown adrenalin boosting shark feed like those conducted in the Bahamas, it enables you, with a patient approach, to get an opportunity to photograph these beautiful creatures on their own terms. Some of the shallower dives like Armchair Reef and Tarpon Alley, as the latter's name suggests, harbour huge numbers of well fed and easily approachable tarpon. The seafront restaurants also see the attraction of these fish and publicise 'tarpon feeds' to attract customers. All of this makes these huge fish plentiful in Cayman waters, although they remain a challenge for the photographer with their mirror like silver scales.

Turtles are also common in Cayman waters. A large turtle farm is located on the North side of the island, and it's probably the biggest tourist attraction on the island. Thousands of turtles are reared there every year, and although many of them end up as the 'special' in the seafood restaurants, there is also a big turtle conservation and release programme in effect. As a

Stingray city is one of the best 5metre dives in the world.
Housed F90 16mm fisheye Housed SB26 flashgun.

result it is possible to see turtles on most of your dives, although they remain wary of divers and a careful and unhurried approach is always needed to create a good picture.

The more remote and less dived North wall of Grand Cayman offers magnificent and pristine wall dives with unlimited wide angle photographic potential, and it's here you may encounter the eagle rays that fly gracefully along the walls during the day. Then in the late afternoon they can be seen heading through the channels of the outer reef into the shallows of the lagoon for the night. However after being based on the island for many years, world renowned photographer Cathy Church, was still waiting for her first great eagle ray shot ! So don't be disappointed if you don't get them on film in a week or two!

Stingray City however, will enable you to get as many shots of magnificent Southern Stingrays as you like! Most divers have heard of Stingray City, and it is often rated as one of the best 5 metre dives in the world! There's also the Sandbar, an even shallower site where the rays congregate. Both sites are hugely popular with divers and snorkellers alike, and require boat access - so unless you're able to charter your own boat for an early visit, be prepared to share the site with hundreds of other divers and cruise ship day trippers !

It is however an exciting encounter, and once your buddy gets the hang of enticing the rays with a little bait (a little like watching a novice matador practising his art) you will end up with endless photo opportunities. The rays are plentiful and playful, and even with other groups in the water it is possible to find an area away from where the divemasters are organising their groups, and if you're careful not to stir up the sand it is easy to shoot a whole roll of film in a matter of minutes. But beware, tease them too much and they'll give you a nasty suck - leaving you with 'hickey' or love bite larger than anything you ever got behind the bike sheds at school!

So, although there is a place called Hell on Grand Cayman, from an underwater photographers point of view it certainly isn't ! With year round great diving, and unlimited photographic potential it's easy to see why it remains so popular. Just make sure you have plenty of pocket money with you for those apres dive activities, and I promise you your shutter release finger will be well exercised. My time working on Grand Cayman was certainly a great experience and, as Arnie would say, 'I'll be back' !!

This young morey was very shy but still made an exellent subject.
Housed F100 60mm micro nikkor with twin YS120 flashguns

Paul Ives

www. paulives-photographer.com

for more information on Cayman

wwww.divecayman.ky
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Here is what is in the 2nd Issue:

The Color Yellow, a superb slide show. Edward Snjiders

Desert Isles, of the Coral Sea. Walter Starck

Secrets of the Southwest, spectacular SW coast of the UK. Mark Webster

"Just Let Them Come to You", Macro in New Zealand. Wade and Jan Doak

To'o i asi, the Saltwater people of Lau Lagoon. Mike McCoy

Lost Fleet of the Rock Islands, Palau. Tim Rock

Decompression, important new advances.....multi contributors

Video and Slide Presentations, techniques. Roger Roth

Video Features

Down and Dirty, in PNG and Indonesia. Ray Izumi

Byron Bay Down Under, in NSW, Australia. Tim Hochgrebe

Sealions of Pearson I., South Australia. Andrew Bowie

Gift for the Emperor, Andros I., Bahamas. Walter Starck

Stromatolites of Shark Bay, Western Australia. Jeff Mullins

Humpback Whales of Roca Partida, Mexico. Carlos Villoch

Lost Fleet of the Rock Islands

By Tim Rock

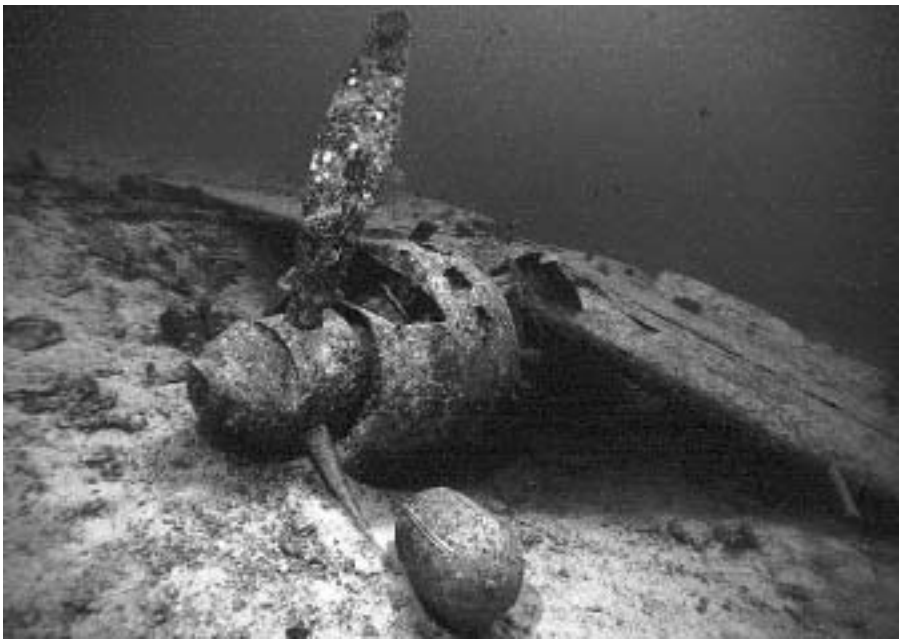
This article has been reproduced from the Golden Dolphin CD magazine. The images on the CD are larger and higher quality. See page 19 for full details of the Golden Dolphin CD.

Palau isn't thought of as a shipwreck haven but in truth, there are more ships sunk here than in Truk Lagoon. Some WWII casualties have been salvaged and others are located in the Rock Islands, which aren't always known for their great visibility. But there's still a lot of history left and it can be seen by the adventurous and those with a thirst for history and the unusual.

Japan took control of the Micronesian islands in 1914 and ruled them until the end of World War II. They built the islands in the Palau archipelago into progressive and productive communities that specialized in mining, agriculture and fisheries. When the war came, the islands were also heavily fortified militarily. The islands of Angaur and Peleliu were the settings for fierce battles; the one on tiny Peleliu lasting for three bloody months.

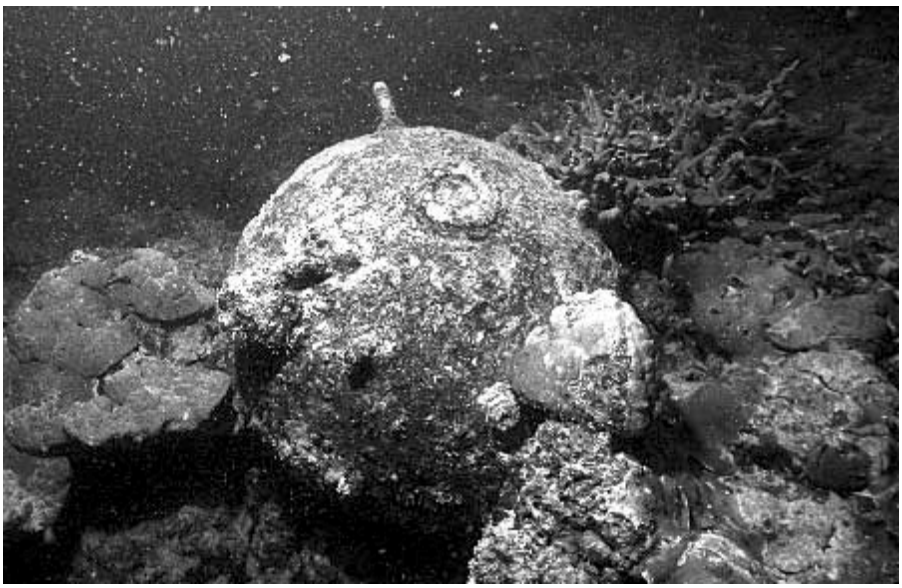
Months prior to Peleliu, a two-day air strike on March 30 and 31, 1944, designated as Desecrate One, sunk a major block of the Japanese fleet. Most were freighters, but small destroyers and many planes went down in the battles. Seaplanes were sunk at their moorings or trying to escape.

Many war remnants still exist today on Babeldaup, in Koror town, on Peleliu and in Anguar's jungles. Koror was wiped out after the U.S. forces took control of the islands. The job of rebuilding the intricate and productive Japanese infrastructure continues today, as the United States assumed a very passive role in administering the islands through the past four decades. The older people of Palau

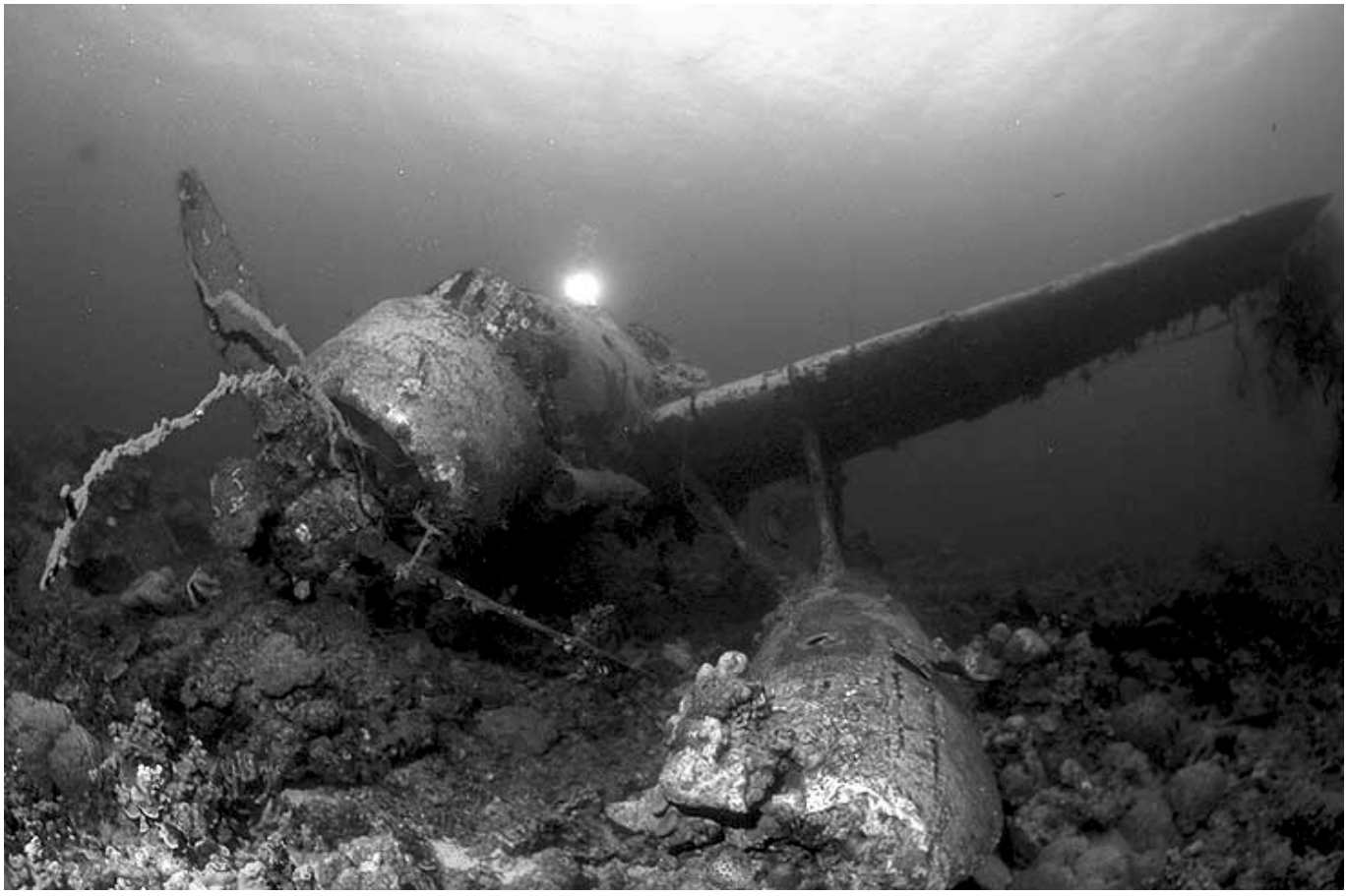


Near the western passage on the way to Short Dropoff, an upside down Japanese Zero 60 feet under is a haven for copper sweepers and leaf fish.

Still armed, this harbor mine sits embedded in coral on an obscure reef near Koror.



A popular snorkeling venue is this zero along the eastern coast.



A well-preserved float plane sits in the coral near Meyuns.

Brass lanterns are well-preserved in the Mystery Ship's bosun's locker.

still speak Japanese and sing Japanese songs when reminiscing about the peaceful days of their youth prior to the war.

For the diver weeks and even months of exploration above and below the sea are there for the taking. From the tip of Angaur where a new US WWII shipwreck was found, to the upper reaches of Velasco Reef, where a ship sunk by US President Bush Sr. lies, Palau is a treasure chest open to those who relish a glimpse at the war torn past.

Tim has been a professional broadcast and print photojournalist for 25 years. The majority of those years have been spent in the Western and Indo Pacific reporting on environmental and conservation issues. He works as a correspondent for numerous Pacific Rim magazines. He is the author of five Lonely Planet/Pisces series guides.
His photographic work is represented by his own Guam-based agency and by photographic agents worldwide.

Contact:
Double Blue Images - Photography by Tim Rock,
e-mail: timrock@doubleblue.com
www.doubleblue.com
www.timrock.com

A dive of two extremes

by Tony White

My love of macro photography, is no secret to anyone who knows me, and to this end I now spend a large part of my time underwater trying to perfect this art. Elusive as this may be, my love of these small and beautiful creatures drives me ever onward.

It was a beautiful February day that found me leaving Bitung Harbour, with the early morning sunlight dancing on the waves that marched up the Lembeh Straits giving a sense of peace to all who surveyed this tranquil setting. This place, in North Sulawesi, Indonesia is a magical dive destination of two extremes.

The seabed is miles of endless black volcanic sand with the plankton sucking into its narrow entrance reducing visibility down to between 5 and 10 metres. But amongst this apparent desolation live some of the most beautiful and bizarre creatures on our planet.

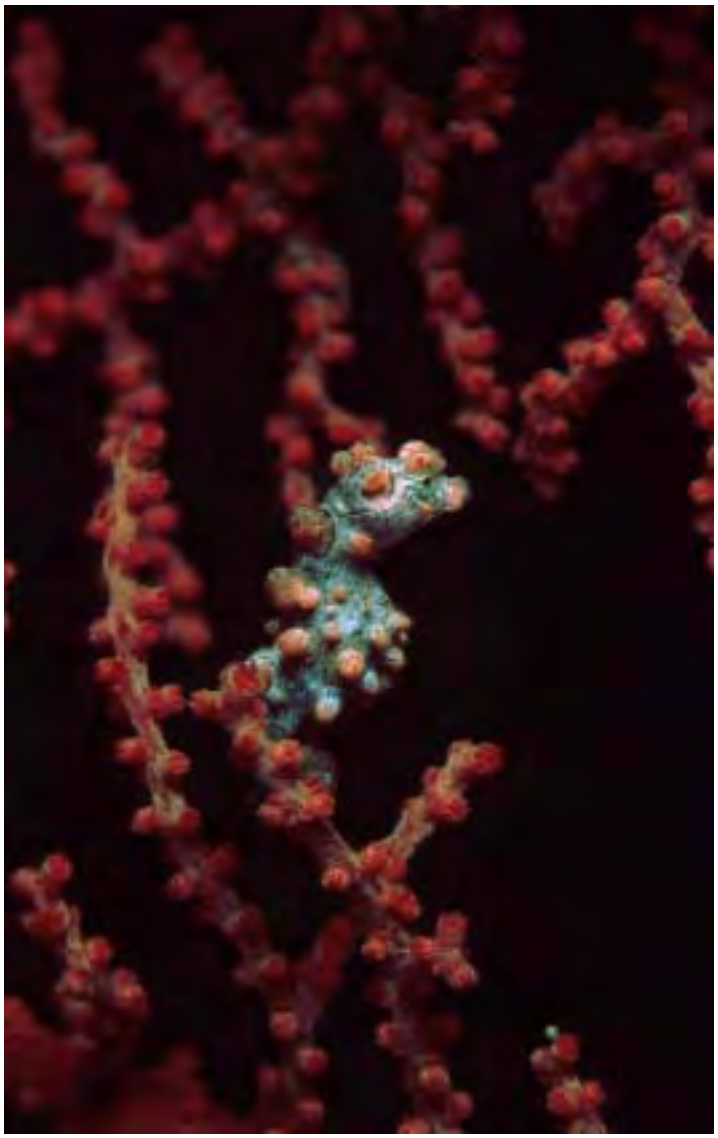
My quest has always to been to experiment and this was my intent today. When photographing marine life in the range of half an inch through to three inches, I settled on my Nikon 105mm lens. My other treasured piece of kit is a plus four Dioptre supplementary lens screwed on the front. Hopefully it will become apparent to all who read this article why I have made this choice as we go through the dive.

Today's dive site was Angel's Window, a tall pinnacle rising some 30 metres from the seabed, chosen as one of the only sites in Lembeh that has some reasonable background coral and also for its myriad of small critters. As we descended into the gloom, visibility settled at around 5 metres. We approached a ledge at approx 20 metres, which we knew to be home to a number of very colourful featherstars although it wasn't these that were to be the focus of our attention, but the creatures that lived in symbiosis with them. It wasn't long before we found what we were looking for. In the centre of one, we could clearly see a yellow squat lobster no more than half an inch in length.

Using the plus four dioptre reduces depth of field down to approx half an inch at f16, this should not be looked on as a problem but something that can be used to creatively enhance the subject perhaps to separate the subject from the background. I always lock magnification at its longest point and rock back and forwards until my eye gets the point of focus I deem to be the most important (usually the eye). Bracketing around f16, the increased magnification (up to one and a third life size) gives more dynamism to these minute creatures. Taking a break for a moment, I surveyed my surroundings and am always in awe at what is in reach.

All photos were taken with a Nikon F90x in a Sea & Sea housing with a 105mm Micro-Nikkor and +4 dioptre lens. A single diffused YS120 flash provided the lighting and the film used was Fuji Velvia underexposed by 1/3 of a stop using the compensation function on the camera.

On a nearby gorgonian sit two pygmy seahorses no bigger than my finger nail going about their busy daily life. I sometimes ponder, whilst watching them, what their perception must be of these giant creatures that all too often invade their world. Moving on down the ledge, always on the lookout for something different, I come across another patch of rainbow coloured featherstars by which floated a ghostpipe fish ever watchful of my approach but comfortable in his camouflage. As I approach he moves closer to his protective host.



On this dive, I always finish on the top of the pinnacle, which is home to a small colony of colourful nudibranches. This is where my lens set-up comes into its own. There are some beautiful red and orange corals here, but being the Lembeh straits nothing is so easy. Because of the concentration of plankton, the coral is festooned with strands, which makes what we observe rather ugly. One technique here is to use the limited depth of field to my advantage. Even at f22, focusing on the head of the nudibranch and again locking focus and using the rocking technique, the background although only 3 inches behind is blurred enough to give just a hint of the colour that although real is not what it seems.

These are some of the reasons that I have for the moment settled on this lens set-up and nowadays very rarely enter the water without it. To me, it gives that extra edge to creating macro shots which capture the magic of a world of two extremes.

Tony White
Sea of Dreams Ltd
e-mail seaofdreams@btinternet.com

Perfecting the balancing act

By Mark Webster

The most appealing underwater photographs are often those wide angle scenes which have an entirely natural look to them – the foreground is colourful and well exposed whilst the background is also visible and appears to stretch away into the distance. This effect is produced by using a mixture of natural or ambient light and flash or strobe light, which adds back the lost colour in the foreground subject. To achieve this we need to master one of the most essential skills in underwater photography, which is balancing these two light sources sometimes referred to as fill flash exposure.

Modern auto-focus cameras are brim full of programme modes and it might appear that the simplest solution is to select one of these and let the camera and TTL flash control do the job for you. Whilst this can be a successful option in many cases, the camera does not always provide the correct exposure, particularly in close focus wide angle compositions where the image might include an expanse of blue water and a sunburst. In order to achieve repeatable results it is important to understand why the camera may fail in certain situations and how to master this technique manually.

If you are using TTL then you would meter the background and set the aperture for the natural light exposure and then take the shot assuming that the electronics will quench the flash. However, most of us are using Nikonos compatible flash guns with our housed camera systems which under most circumstances offer very good TTL exposure control. The problem is that no matter how complex your camera's TTL metering system may be, these strobes default to a centre weighted metering pattern – in order to make full use of matrix TTL metering you need to use the appropriate dedicated land strobe in a housing. The result of this is that if your main subject does not dominate the central area of the image then the strobe may well emit too much light and overexpose the picture. This happens often when the centre of the image contains the distant background or open water, which causes the TTL circuitry to fire the strobe at full power as it receives no reflected light from the subject.

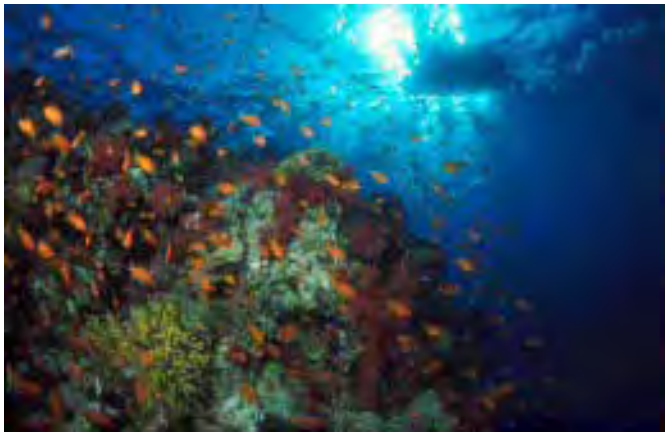
With experience you will recognise the compositions that are likely to result in over-exposure from your own camera/flash combination. Some flash guns have an adjustable power output in the TTL mode which allows you to reduce the level of a full

Balancing light from inside a cave can be awkward. Use centre weighted or spot metering to take the blue water reading and bracket the flash exposure. Nikon F90X, 16mm fish eye, Subal housing, F8 @ 125th, YS120/30, 100ASA.

Silvery fish shoals present another problem, that of reflection from their scales. For this situation you need to determine the balanced exposure and then ensure that the flash lights the subject obliquely, so that any reflection does not come back towards the lens. Nikon F90X, 20mm, Subal housing, F8 @ 125th, YS120/30, 100ASA.

Working in temperate waters means working with lower light levels. Balancing the flash output can be more of a challenge unless you have multiple manual powers on your gun. Practice hand holding the gun at a distance behind the camera to reduce the output. Nikon F801, 16mm fish eye, Subal housing, F5.6 @ 30th, YS120/30, 100ASA.

Close focus wide angle shots can be quite difficult to balance. Try to include the sun in the frame which will allow you to use a smaller aperture for the foreground subject. Nikon F90X, 16mm fish eye, Subal housing, F16 @ 125th, YS120/30, 100ASA.



In tropical waters you can expect the sun to dominate the exposure. Meter off to the side of the sun or perhaps use a surface feature like this boat to partially obscure it. Closing the aperture will darken the blue of the water and require more output from the flash to illuminate the foreground. Nikon F90X, 16mm fish eye, Subal housing, F11 @ 125th, YS120/30, 100ASA.

power dump which is one way of bracketing the exposure. If you don't have adjustable TTL powers you can achieve the same effect by adding diffusers to the front of the flash to reduce output. Another option to consider is adjusting the exposure compensation settings on the camera, but this is fiddly and will often result in an underexposed background. For me the easiest method is to resort to manual flash exposure, which provides finer exposure control and is easier to bracket several exposures.

For this you will need a guide number chart on the side of your strobe and understand how to use it! First you take a light reading for the background exposure which for example gives you a reading of F8 @ 1/60th. Then you must calculate the flash to main subject distance using the guide number, which we will assume is at 30cm (1ft) and will be F11. So now we have to reduce the output of the flash to match the exposure of F8. If you have adjustable manual power settings on your flash gun then it is simply a matter of turning the power down one stop. If you don't then you must

This is a classic balanced light composition. The sun is slightly hidden by the reef so the background exposure must be based on the diver's torch. Select a suitable aperture and shutter speed and concentrate on balancing the flash output to just highlight the colour on the reef. Nikon F90X, 16mm fish eye, Subal housing, F8 @ 60th, YS120/30, 100ASA.

physically move the strobe back behind the camera to a distance which will give an exposure of F8, in this case probably 45cm (1.5ft) or so. If you are using long flash arms then simply extend them back behind the housing, if your arms are not long enough then you will have to detach and hand hold the strobe. Be aware of the direction you are aiming the strobe as it is easy to miss the subject when it is not in your direct line of site. This technique requires some practice until you are truly familiar with the power output of your strobe but the results are worthwhile.

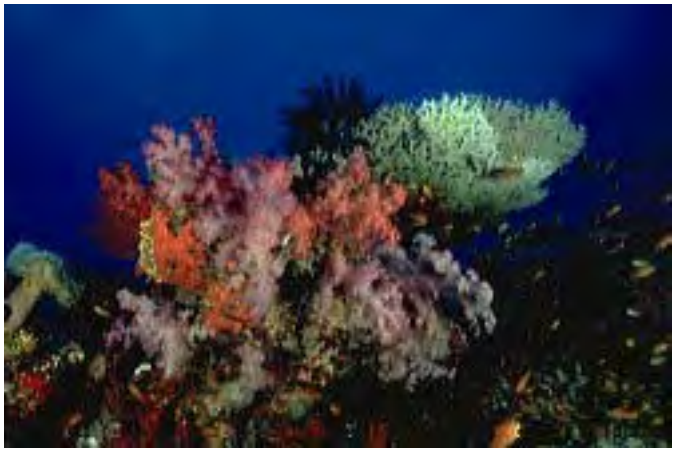
As always, practice makes perfect and it is worthwhile keeping a record of your successes and failures until you begin to recognise those situations where you can rely on automation or you need to adopt those old fashioned manual methods.

Mark Webster

Mark Webster is the author of 'The Art and Technique of Underwater Photography'
For further details visit Mark's website at www.photec.co.uk

Tips for Shooting Wide Angle

with Steve Norvich



If you are like me, you probably started out in underwater photography by shooting a Nikonos V (or Sea and Sea) with framers and extension tubes. As time goes by, however, certain limitations of this system can get frustrating. As such there is a tendency to move to a Single Lens Reflex (SLR) camera which is either amphibious by nature or is housed in a metal or Lucite housing from one of the many good vendors in the business.

An SLR allows more creativity and control over the results since in most cases you see what you are shooting in the viewfinder (in certain cases, however, less than 100% of the image is in the viewfinder),but it also requires more skill than simply placing a framer over a subject and pressing the trigger. While this will certainly remove many of the limitations imposed by not using an SLR camera, it also will whet your appetite for shooting reef scenics and large marine animals rather than small marine animals that move slowly.

These larger reef scenes are normally taken with a wider angle lens, which can vary from 14mm to 35mm. I personally favor the Nikonos 15mm lens for the Nikonos V camera, and a housed 18mm lens for a housed 100% viewfinder camera such as the Nikon F5. Don't take my personal preferences as more than recommendations of what I personally like.

Shoot in Manual Mode

When shooting macro subjects almost everyone uses TTL simply because it is easy and will work nearly all the time; wide angle, however is a different situation. While there are exceptions in macro photography, such as if your subject is extremely dark, extremely light or extremely reflective, or there is blue water in the frame, TTL will give good results probably 95% of the time or more. For macro, if one understands the limitations of TTL, there is no reason not to use it.

Wide angle photography on the other hand, most often has a fair amount of blue water in the frame and will not reflect back strobe light to the lens. This can potentially wreck havoc when using TTL, especially matrix balanced TTL as the foreground will then be overexposed or burned out. Some people still use TTL when shooting wide angle and attempt to compensate for the blue water by under exposing by 1, 2 or more f-stops or somewhere in between. This will sometimes work, other times not. If this is your preference, bracket with exposure compensation proportionate to the amount of blue water in the image.

What I do is determine the background exposure by spot metering on the blue water I wish to be exposed properly. This is usually away from the sun, normally at a 45-60 degree angle. It is essential to know where the spot meter is located for a given camera. For example, the Nikonos V, the spot meter is located in the lower center while most in most SLR cameras the spot meter is in the focusing area, generally the center of the frame unless they have variable focus points. Generally this suggests shooting upwards as much as possible because the difference between upper and lower blue water, shooting horizontally, is approximately two f-stops. If you simply shoot horizontally this will make the top blue water of your image look overly light and the bottom water overly dark. This combination of f-stop and shutter speed is my base exposure that I set manually. In tropical waters with reasonable visibility a good guideline for ISO100 is f8 at 1/60. If I am shooting scenes where the primary subject does not move much, such as a reef scenic, I use a higher f-stop and slower shutter speed to increase depth of field. For example, this reef scenic was shot using Velvia ISO 50 at f5.6 and 1/60 nearly straight upwards. Notice that the blue is an even color and does not go from light at the top to dark.

Remember that not all reef scenics should be

shot horizontally. Sometimes the subject, like the soft coral below, should be shot vertically. Some people tend to compose vertically naturally and have to think horizontally when appropriate, while others are just the reverse.

If I am shooting animals that move fast, I use a higher shutter speed and lower f-stop at the cost of depth of field. To get the best results with animals with predictable patterns of movement, I preset shutter speed, f-stop and focus and wait for the correct shot. Using Velvia at 50 ISO shooting upwards but not into the sun, will give a result of about f5.6 and 1/60. Fast moving animals such as sharks require a shutter speed in excess of 1/125. Notice the slight blur of the tail on the Silver tip shark below. In order to totally freeze the tail, it would require a synch speed of 1/250 which some cameras (including the Nikonos RS) do not have. This image was shot at f5.6 and 1/125 using Provia 100 in Kavieng, Papua New Guinea. The focus was preset and subject to strobe distance matched at 2 feet which resulted in shooting at quarter strobe power on an SB104.

The animal is highly reflective so it was better to slightly "under strobe" the subject.

Stopping sunbeams

To effectively freeze sunbeams requires shooting at 1/250. Notice the dancing sunbeams on the picture below shot at Devil's Grotto in Grand Cayman. This was shot at an aperture of f2.8 and 1/250 of a second.

Create Contrast

Successful images have a subject that stands out. Too often I see photographs where the subject blends into the background (sometimes called negative space) and simply fails to grab one's attention. This often occurs when shooting down on a subject. If you are aware of this problem when composing an image there are various ways to make a subject stand out or "pop". Making a subject "pop" involves creating contrast between that subject and its background or negative space. There are three easy ways that this can be accomplished.

Color Contrast

Photographing a subject against a background of a completely different color can create contrast. This could be a black background, which can be easily created by shooting with a small aperture, e.g.0 f16 or f22 and fast shutter speed, a blue water background, or a different color background as shown by the photograph of a manta ray against a sunburst and blue water background. While I lightly exposed the bottom of the manta with strobe light, it stands out quite nicely from the blue water. Again I had set up exposure matched strobe and focus for two feet and simply waited for the correct shot to occur.

Negative Space Contrast

Another way to create contrast is by using negative space to accentuate an interesting subject. This can be done by shooting in silhouette. Remember, if you cannot see a silhouette, you cannot shoot a silhouette.

This photograph of a manta ray accentuates the contrast between the light of the sky and the dark of the subject with no strobe lighting.

Shoot your strobes on manual not TTL

Once you have determined the basic exposure for your blue water background, you have a shutter speed and f-stop combination. F-stops are tradeoffs with shutter speed, as each will change the amount of light that reaches the film by * (if you increase shutter speed by one click, e.g. going from 1/60 to 1/125) or double the light by increasing the aperture by one stop, e.g. going from f8 to f5.6. Strobes, however, since they are shoot very fast relative to shutter speed, don't care at all about shutter speed selected. They care only about f-stop and distance to subject. Most strobes have a table of strobe to subject distances; however for best results, shoot a test roll to verify that this table is correct. Many strobe manufacturers tend to exaggerate their guide numbers to make their strobes seem more powerful than that of their competition. For wide angle photography, wide angle strobes which cover about 90 degrees are ideal. Optimally they should also have one stop increments in power setting. That is "full", "half", "quarter", and so forth.

What makes a picture work?

If an image is pleasing to the viewer it works, and generally this means that it is composed well. There are two ways to accomplish this.

The first is to think about what makes good composition while shooting your pictures and the second is to take all the pictures from a given photo shoot and throw away those that are badly composed. Which makes more sense? It is up to you, the photographer, to decide. I personally find that unless I think about composition while shooting that I have far too many images to throw away when culling.

Good composition means that picture elements produce an overall pleasing, unified, and harmonious whole. While this is highly subjective, there are some guidelines, which will help composition be pleasing and cause your eye to gravitate to the subject.

Rule of Thirds

Think of every image as if it were a tic-tac-toe layout with two vertical and two horizontal lines. The intersections of these lines are called "crash points" and these are the power points that will easily draw your attention or that of your viewer.

Placing your subject at one of these crash points will create an image that is more powerful and able to keep the interest of the viewer. It gives a feeling of balance and harmony and keeps the image from being boring. Too often, placing the subject in the center of the image makes the picture look posed. So, in effect this is asymmetrical composition where the subject is not centered or if it is centered, the eye of the subject is at one of the crash points. When the subject is placed on one of these power points or crash points, it is highly desirable that it be positioned such that movement is into the frame rather than out of the frame. The former feels right while the latter creates a discordant feeling.

Look at the preceding images in this article and notice that they use those points wherever possible.

The rule of thirds also suggests a one-third/two third ratio between background (negative space) and subject. Often, in underwater images, this means one third is black or blue water background or negative space and two thirds is subject. Be careful about overusing the black water background; I prefer blue water instead. You CAN, however shoot reef scenics with black water background if your subject is carefully chosen. Note that the ratio

of blue water in the image below is about one third of the total image.

If it is necessary to center a subject try not to have the subject centered and parallel to the bottom or top of the image. Often times creating a diagonal can cause a mundane subject composition to be more interesting.

Think Negative Space not Subject

While finding good subjects is essential to underwater photography it is not the end but rather a means toward an end. The best images are those with the best negative spaces and this is true of wide angle as well as macro or close-up photographs. What makes your pictures stand out from those of all the other underwater photographers in the world is how you compose and how you use negative space creatively. A good photographer does not take pictures; a good photographer makes images. This is especially true for wide-angle photography. Personally I often look for superb negative spaces and then find subjects within those areas.

Change your Viewpoint

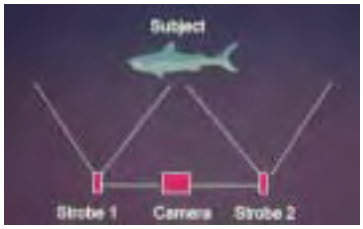
Try to get the most out of a given subject. Good subjects are difficult to find so don't simply take one photograph and move on. Shoot the same subject from different viewpoints, directions, and sides. Look for creative ways of showing how the subject fits into its world. Look for simplicity rather than complexity so the subject does not get lost in a myriad of detail. Consider shooting both vertical and horizontal compositions of the same subject.

Get Closer

If you want your pictures to be better than average get closer. Then, get closer again. Having less water column between your camera lens and your subject makes for better color saturation, better clarity, greater enunciation of detail, and less strobe power required to light the subject properly. In wide-angle photography this means using the widest lens available as long as it matches the dome port that contains it. If it does not, the corners of your image will be less than sharp.

Avoiding Backscatter

Backscatter is caused by lighting pieces of particulate in the water before or in front of the subject being photographed. Backscatter is not inevitable even in water heavy in particulate. The only way to avoid backscatter, other than photographing in crystal clear water such as found in a swimming pool, is to paint the subject with the edge of your strobe beam rather than aiming the strobe directly at the subject. Obviously decreasing the amount of water between the subject and the lens reduces the backscatter opportunities by reducing the water column between camera and subject, but painting the subject with the strobe edges will work even in murky conditions.



Dual Strobes

I personally prefer the use of two strobes rather than one especially for wide-angle photography. If you use only one strobe you are forced to point the strobe somewhat inwards and this will result in backscatter. Most often I have one strobe on the left and one on the right of the subject, both slightly above the camera, and both slightly pointing downwards and straight ahead (as opposed to angling inward). Depending on the size of the subject area the strobes will be closer or farther apart. Large scenics require long strobe arms. Remember, however, that the viewer will not be able to easily judge the size of your scenic because a wide angle lens will distort that. Start by shooting smaller scenes and then progress to larger scenics.

Lighting Ratios

For wide-angle photography, I use equal lighting ratios for both strobes. That means that the subject to strobe distance matched and has a power selection relatively the same for each strobe. What this really means is that if one side of the scenic is further away the strobe on that side will be at a higher power. When using this technique proper bracketing is desirable and occasionally essential to find the best effect. In this case bracketing is with strobe power settings for a measured distance rather than f-stops and shutter speeds which will be matched with the setting to create a blue water background.

Conclusion

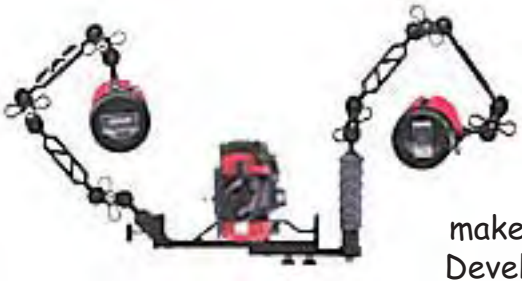
In conclusion, I hope that the tips discussed above will be useful to you and that you will try them in a situation where you can get immediate feedback by processing your film and then looking at results. Always evaluate your results and keep notes about what works, what does not and what your preferences are. Consistent evaluation will cause your photography to improve and you will avoid reoccurring systemic mistakes.

Steven Norvich

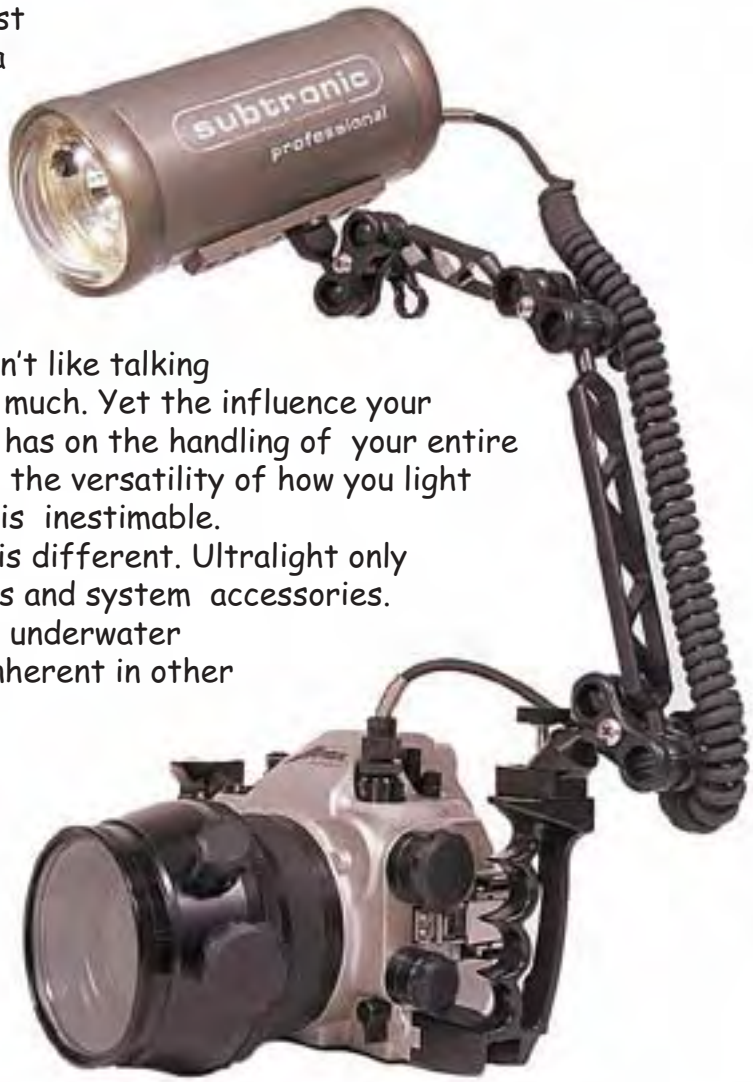
Win The Arms Race with Ultralight

Sometimes it seems like you've bought the best underwater camera and the finest strobe only to be thwarted by the flash arm.

Let's be honest. Most housing and underwater camera manufacturers don't design great strobe arms. And maybe that's why they don't like talking about them much. Yet the influence your strobe arm has on the handling of your entire system and the versatility of how you light your shots is inestimable.



Ultralight is different. Ultralight only make strobe arms and system accessories. Developed by top underwater photographers to overcome the problems inherent in other designs, it's also chosen by top underwater photographers.



Envisaged as a totally modular system, Ultralight lets you evolve your system as your skills develop and your needs change. With arms from 3 inches to sixteen you can adapt from supermacro to fisheye and choose between frame arms for buoyant guns and buoyancy arms for heavier units.

With the best holding clamps in the business strobe drift is virtually eliminated even in current.

The range of accessories encompasses tripods, basetrays, pivot trays and handles, modelling light mounts and meter holders. It is simply the most extensive strobe arm range in the world.

So when you select Ultralight you won't be cramping your style. You'll be broadaning your horizons.

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Solving Nikonos V TTL problems

by Peter Rowlands

The sad news that Nikon are to discontinue the Nikonos V makes it all the more neccessary to look after your existing cameras. The manual which comes with the camera is helpful enough but there are some tips they don't tell you about but UwP will!

The TTL flash contacts are probably the biggest cause of exposure failures and care should always be taken when removing a sync cord from the socket, especially just after the camera has been taken out of a rinse tank. The small gap between the centre of the flash plug and the threaded part you screw into the camera socket will almost certainly retain a small amount of water. If you unscrew the sync cord with the camera upside down this water could drop into the flash socket.

On a Nikonos 111 or 1Va this would not be a major problem and a small burst of low pressure air would expel the unwanted water. The problem with the Nikonos V is that the two extra pins for TTL signals are sprung loaded. This allowed Nikonos 111 and 1Va flashguns to be used but it did leave a weak link in the system.

The problem is that, being spring loaded rather than moulded into the solid insulating plastic as the other three are, water can get past the small pins and into the insides of the flash pin assembly and eventually, if there is enough pressure or water, it will actually get inside the camera and could do a lot of damage.

I know rinse water is supposed to be fresh but, in the real world, it rarely is so it will be slightly salty and will cause a resistance in the sprung loaded contacts which will fool the flash into thinking that it is giving out enough power when the system is next used. Unfortunately for those who didn't know this, it will seem as if everything is working as the flash will fire every time but it will only be a very small output and the shots will almost certainly be very dark or underexposed.

An early indication that you may have a problem is if the lightning bolt in the camera viewfinder flashes rather than stays on permanently when the flash ready light is on. If this happens you must try to clean and dry the flash contacts. Doing this may seem a bit nerve racking but you have no choice if you want to solve the problem. The following is what I recommend if you are on site and don't have access to a Nikonos repair facility:

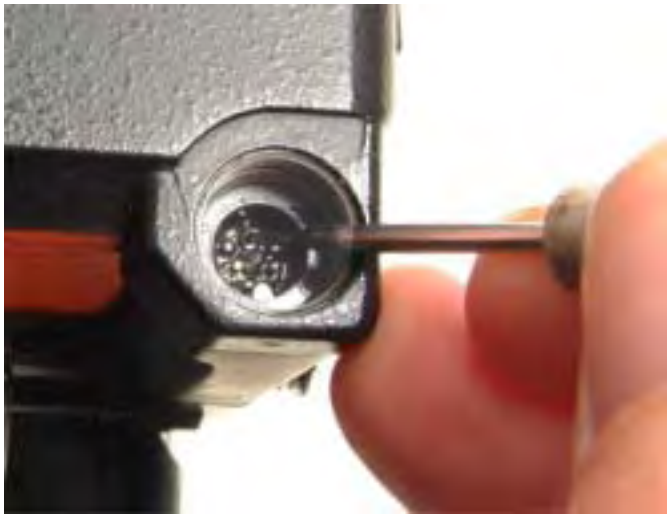
The weakest links. The two smallest connectors are sprung loaded and water/grease can get behind them. Water increases resistance and grease stops electical contact and even small amounts will cause TTL failure

The small gap between the centre of the flash plug and the threaded part you screw into the camera socket will almost certainly retain a small amount of water for a long time after a rinse.

You are not advised to remove the flash plug like this as drops of water can fall onto the flash pins and cause TTL failure. It is better to hold the camera normally and carefully remove the plug from underneath.

Diver's Best CL40 comes in a 1/2oz bottle which has lasted me three years so far. It is basically a contact cleaner which can be used if an application of degreasing liquid has not solved the problem (please refer to the text)

Diver's Best say don't do this but it has worked for me. Bear in mind that you haven't got much to lose because the only solution after this is to have a Nikonos repair technician replace the flash pin assembly from inside the camera and this is an expensive repair.



I didn't tell you to do this! Use a fine pointed device to push each of the two small sprung loaded pins up and down a few times and then blow the CL40 away with a blast of low pressure air.

The first option is to give the socket a blast of low pressure air. If you are lucky it may expel any trapped water or grease.

The second option is to drop some degreasing liquid into the socket. There are many varieties of degreasing liquids, some of which will attack the plastic, so be careful which one you use. I use an IPA based liquid called Isopropanol which is very good. I think RS components sell it in small quantities but I use it so much for my work that I buy it by the gallon!

With a generous amount of degreaser in the socket use a fine pointed device to push each of the two small sprung loaded pins up and down a few times. This will get the liquid behind the pins and inside the flash pin assembly. There it will degrease the contacts and should also absorb any moisture. A blast of low pressure air will then expel the remaining liquid either physically or by evapouration. I have found that this solves the problem about half of the time. For the other half there is one final, last ditch attempt to try...

I was given a small sample of 'CL40' about three years ago. It's made/marketed by Diver's Best in the USA. I don't know if they have an agent in the UK but their address is 112 Commerce Street, Riverdale, Atlanta GA 30236. I suspect that CL40 is merely a rebranded contact cleaner such as those sold by Maplin or RS Components but it has worked very well for me over the years so I'm not knocking it.

The CL40 instructions tell you not to do what I am about to recommend but it works for me a lot of the time! I apply a small amount of CL40/switch cleaner into the socket and depress the spring contacts as before, then blow it away with a blast of low pressure air. If you still have a problem, the only solution is to have a Nikonos repair technician replace the flash pin assembly from the inside of the camera.

Fortunately you can test the TTL system without film in the camera as follows:

Make sure you are wound on to at least Frame 1 and fire the flash straight into the lens with it set at the widest aperture (F2.5 on the 35mm lens). When you fire the flash you should get a very small flash and a very fast recycle time.

Now cover the lens with a lenscap or place the camera face down on a solid surface. When you fire the flash now the output should be much brighter and the ready light will blink a few times, go out and then the flash will start to recycle. This indicates that the flash has fired at full power and that your TTL system is working fine.

Next issue we'll look at more do's and don'ts to make sure you keep your Nikonos working.

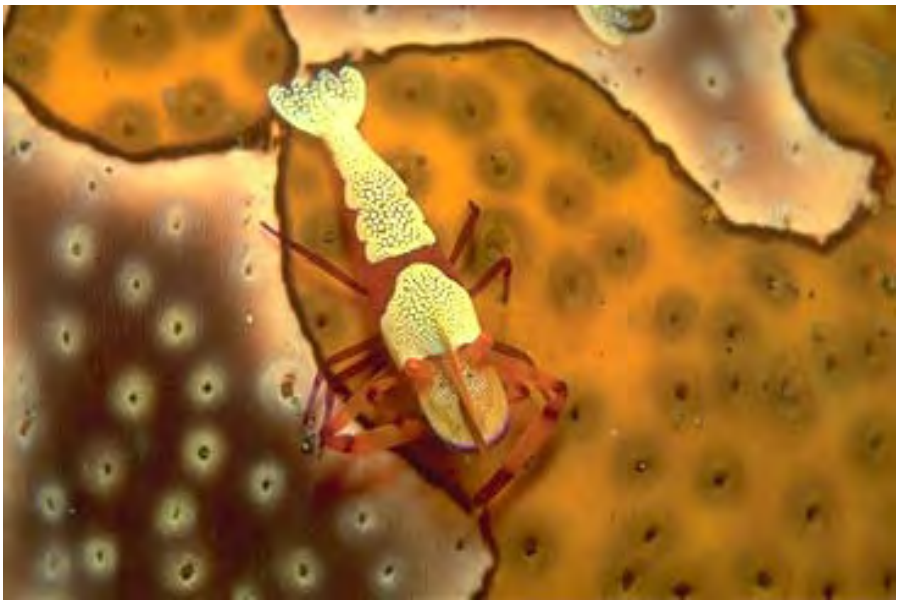
See you in Issue 3 of UwP on December 1st 2001!

Peter Rowlands

Do your homework

How the Pro's get those stunning Macro Shots

By Will Postlethwaite



Nikon F90X in Subal housing, 60mm macro , Sea&Sea YS120 and YS90. TTL. Fuji Velvia 1/100 f32

Nikon F90X in Subal housing, 60mm macro , Sea&Sea YS120 and YS90. TTL. Fuji Velvia 1/100 f22

The received wisdom is that macro photography underwater is easy so why is it that you can't get those stunning shots you see in the coffee table books and photo competitions? It does not take long to get to grips with focus and depth of field, aperture and strobe positioning for effect but if you are still struggling to get a shot with real impact then maybe you need to think more about your composition and, more importantly, choice of subject. This is where you need to do your homework.

Photo courses will start you visualising good composition by talking about the 'rule of thirds' and subject positioning within the frame. If you sort your shots out into two piles where the first pile follows the rule of thirds, diagonals and has the subject positioned well in the frame facing in the general direction of your lens and in the second pile the rest.Your best shots will be in the first pile.

Now you need to take pile one and look at the subjects. Are they interesting? Have you had to spend five minutes explaining to your Mum what they are and which end is the front? (We've all been there!) Do they have any impact in themselves or are they dull and lacking colour? Is the background messy or lacking colour or contrast with your subject? Do your friends all have pictures of the same things?

If, when you answered the last question, you came up with someone who gets pictures of stuff you never find that will be the same person who pours over the identification books with their evening beer. They will also be the person who is chatting to the dive guide on the journey to the dive site. This person is on the way to being able to get macro shots with real impact. They are doing their homework and already have an idea, as they drop off the boat, of what they are looking for and how they are going to get the best shot.

The oceans are full of the most amazingly beautiful tiny creatures but you have to know how to find them. It is a dangerous world down below and being small these guys have to hide or be eaten. Some hide in crevices and holes but more often than not they hitch a ride on something bigger. Animals that do this, called commensals, also get the

Nikon F90X in Subal housing, 60mm macro , Sea&Sea YS120 and YS90. TTL. Fuji Velvia 1/100 f22

Nikon F90X in Subal housing, 60mm macro , Sea&Sea YS120 and YS90. TTL. Fuji Velvia 1/100 f32

added benefit of getting access to food by riding on their host.

In the Indo-Pacific the feather star or crinoid is a most accomodating host where all manner of shrimp, crabs and fish live. A careful examination with a keen eye over a few will usually reveal an elegant squat lobster as shown. The others are for you to find!

One species that shows the most variety of colours is the shrimp Periclimenes imperator. It will hitch a ride on all manner of hosts and, like many commensals, adjusts its colour for camoflage. Two pictures here show the shrimp on two different sea cucumbers, a pink version lives in the gills of the Spanish Dancer.

Nudibranchs are colourful subjects in themselves but usually need a complimentary backdrop to make real impact. Fortunately they get some of their colour by recycling some of their food. Find out what they eat and they might be easier to find and somewhat more striking like the two shown here.

Not all nudibranchs are around all year and, like many sea creatures, are seasonal. Many creatures also have a certain depth range. A good subject in the UK illustrates this well.

Snakelocks anemones are a common shallow species around our shores. If you check around the base of these during the summer months you are very likely to find a little decorator crab hiding as shown.

Look in the books, find the charismatic creatures and learn how to find them. Show the picture in the book to your dive guide and ask him to find you one. If he looks blank get him to ask his pals and you might get a better guide! (Top photographers hunt out the top guides.)Once you know where they are and what they look like, now think about how you want to construct the frame around your subjects. If they are commensal on something with complimentary colours then fill the backdrop with their host. If they live somewhere rather dull or messy then shoot so as to get clear water behind them and stop the aperture down or increase your shutter speed to black out the background. You can also blur out the background by openning up the aperture and narrowing your depth of field but beware of negative space.

Go out and invest in a small library of good identification books and read them. The outlay will pay dividends and it is true that the more you know how to spot things the more you will see. But the most important result will be that you will focused and prepared before your dive and consequently more relaxed and in control when taking your shots which is probably the biggest contributor to getting pictures like the pro's.

Demelza & Will Postlethwaite are professional underwater photographers and travel writers Their images and articles are widely published in scuba diving magazines.
They teach underwater photography at
Cornish Diving,
Bar Road, Flamouth,
Cornwall
TR11 4BN
England
http://www.cornishdiving.co.uk

Is it worth the hassle?

Alexander Mustard

I always get the impression that the level of the sea rises whenever I take my Hasselblad in for a dive. Ok, that's a slight exaggeration, but there is no denying that taking medium format cameras underwater requires a sizable housing. Size also means weight to achieve neutral buoyancy; hardly ideal for travel. Manual focus, manual exposure, no TTL, I even have to wind the film on. Why do I bother? Well, the answer is clear, well translucent, and measures of two and a quarter inches square, that is 60 mm in new money. Medium format transparencies are not a small improvement over 35 mm, they are in a different world.

In this article I hope to pass on some of my experiences in my adventure crossing from a modern 35 mm SLR to a fully manual roll film SLR.

So what exactly is medium format? Medium format cameras take film larger than 35 mm but smaller than large format 4x5 inch. In practice, most medium format cameras use 60 mm roll film, in 120 and 220 lengths. Roll film is just another film format like 35 mm, APS and 110, which incidentally my first underwater camera used when I was still in single figures. Roll film is 60mm from top to bottom, and because it has no sprocket holes the height of the image is only slightly smaller. The width of the image can vary, and typical image sizes are 60x45 mm, 60x70 mm and 60x60 mm, that my Hasselblad produces. Most of the popular 35 mm brands of film are available: I use Fuji Velvia and Fuji Provia F. A 60x60 transparency has more than four times the area of a 35 mm, so with the same film it has more than four times the resolution (just like comparing CCD sizes of

Southern Stingray. Hasselblad 500C with Zeiss 50mm Distagon in a Hasselblad housing. F8 @ 1/60th. Sea & Sea YS120 on 1/2 Power. Fujichrome Provia 100ASA. Scanned by photographing transparency on a light box with a digital camera.

Clockwise from top left. Head on view of the flat port. The photographers view of the massive viewfinder. The camera mounted in the housing. Modern flash attached to new synch socket fitted by Warren Williams.

digital cameras, or pixel sizes of computer images).

My kit, which has all been pre-owned, consists of a rusty Hasselblad 500c SLR camera with a Zeiss Distagon 50 mm lens, which has a field of view roughly equivalent to 20-24 mm on a 35 mm camera. The housing was made in the 1970s by the Hasselblad Underwater Division and contains the viewing prism. When I got the housing it had been sitting on a shelf for a couple of decades, so I contacted Peter Rowlands about getting it serviced. Peter put me in touch with Warren Williams, who had worked on these cameras in their heyday. Warren soon had the housing functioning like new, well better than that in fact, because he replaced one of the old style synch plugs with a Nikonos type plug, so I could now use flash although of course without TTL.

In the water the Hasselblad sheds its pounds. It is slightly negative and a little nose heavy, but with a handle on each side it is easy to control. The viewfinder is monstrous and I can almost look through it with both eyes simultaneously. The view is dimmer than that of a 35 mm camera because of the slower lens (f4) and its large size of the viewing screen. Although in well lit tropical waters the screen is bright and makes focusing straightforward.

As a photographer of the electronic age, I had previously believed that my fingers were for operating autofocus, and that manual settings on flash guns were just that, a feature only for the instruction manual. So the change to the battery-less Hasselblad was a shock. But I quickly warmed to the system and using it became a pleasure. Its chunky gears are as smooth and certain and the extra concentration required makes each photograph more precious. The involvement in the creation of each image is such that my 35 mm pictures now feel like snap-shots. The satisfaction is immense. Many of the rewards of underwater photography are not just in the results but in the process of going in the water and putting images together.

Electronic aids remove some of the difficulty, but also some of the pleasure.

Manual exposure is a problem and endless bracketing is not practical with only 12 shots per roll. I always dive with a second camera to meter for ambient light. This solution works well partly because I do not have a light meter and also because it gives me a second system to use once my 12 “big shots” are exposed. My general technique has been to trust my ambient light readings and then bracket for the flash by shooting at different flash distances and powers. For the future, I have been offered a 70 mm film back, which will give me 70 shots per dive and a lots more flexibility for bracketing.

Another factor I have had to consider is that a medium format lens with a similar angle of view to a lens on a 35 mm camera has a much reduced depth of field, because of its longer focal length. I have been

Size matters. In comparison to the petite Nikonos V the Hasselblad is monstrous. However, its bulk belies its surprisingly easy handling in the water.

using the Hasselblad in well lit waters, and the depth of field has not been reduced too critically. To enable me to use smaller apertures and increase depth of field I have tended to use 100 ISO film, where I might shoot 50 ISO on 35 mm. Even higher film speeds could be used to get around this problem, especially with the increased quality of fast slide films introduced in the last few years. Another solution for the reduced depth of field is in subject selection and composition. A simple background is not harmed by being out of focus, for example blue water is not ruined if it is not sharp. In my opinion reduced depth of field can have a positive effect. Many underwater photographs are taken to maximise depth of field but with less range in focus the subject can have more impact, something Steve Norvich pointed out for macro photography in the last issue of Underwater Photography.

The Hasselblad produces a square picture format. A big advantage of this is that flash positions do not have to be changed as much as there are no vertical or horizontal compositions. I have also found the square format a suitable shape for many marine subjects and a refreshing compositional challenge.

One unforeseen problem of my medium format adventure is in showing people my images. I do not know anyone with a medium format projector, my 35 mm lupe does not fit the larger trannies and I can not use a standard slide scanner either. Of course there are solutions to these problems, but although obvious this is a bit of a frustration.

In conclusion, if you ever get the opportunity to use a medium format camera underwater then I strongly encourage you to grasp the opportunity with both hands (and you’ll need both). But should you trade in all your 35mm gear for medium format? I think not. As great as the trannies are, a modern housed 35mm SLR remains the most efficient tool for underwater photography. Medium format is best reserved for special occasions.

Alexander Mustard

Dear Friend,

Jean-Michel Cousteau

James Taylor

Pierce Brosnan

The three of us have never teamed up like this before. But we all share something in common: a deep love of the ocean and marine mammals. That's why we're very disturbed by a U.S. military program that, if approved, will soon be bombarding millions of whales and dolphins around the world with intense noise.

You may have read about the U.S. Navy's "Low-Frequency Active" (LFA) sonar program. The military has been testing this new, high-powered system in secret for years. Now, the Navy wants to deploy it across 80 percent of our planet's oceans. LFA sonar is designed to detect enemy submarines by flooding vast expanses of the oceans with sound. Leaving aside the military wisdom of this sonar — which is still in dispute — the environmental dangers are becoming increasingly clear.

Here's the problem: LFA noise is billions of times more intense than that known to disturb whale migration and communication. Whales and dolphins depend on their sensitive hearing for survival. To put it simply, a deaf whale is a dead whale. Deafening noise from the LFA system will interfere with the vital biological activities of marine mammals. Scientists fear that long-term exposure to LFA could push entire populations over the brink into extinction.

Inevitably, there will also be marine mammals unlucky enough to swim too close to LFA loudspeakers. Imagine an acoustic wave so powerful that, even at substantial distances, it can destroy your hearing, cause your lungs or ears to hemorrhage, or even kill you.

We've already seen a glimpse of the resulting carnage. Last year, whales from four different species

stranded themselves and died on beaches across the northern Bahamas during a Navy military exercise.

All but one of the dead animals examined by researchers had suffered hemorrhaging around the inner ear — the telltale sign of acoustic trauma. The U.S. Navy's own report concluded that it is "highly likely" that the stranding was caused by the use of mid-frequency active sonar. But despite this tragic event, the Navy now wants to deploy LFA, the most extensive active sonar system ever devised.

We know that different frequencies will affect different marine mammals and that the lower the frequency, the farther it penetrates the ocean. We believe it is unconscionable to expose marine mammals around the world to more high intensity sonar. If you agree, then please join us in taking immediate action; it will take you only a few seconds.

Just go to http://www.nrdcaction.org/

We believe it is unconscionable to expose marine mammals around the world to more high intensity sonar. Just go to http://www.nrdcaction.org/index.asp?step=2&item=518

index.asp?step=2&item=518. The Natural Resources Defense Council (NRDC) and Ocean Futures Society (OFS) have set up this web page to make it easy for you to send electronic messages of protest to your U.S. senators and representative. Congress is now deciding the Navy's funding for next year — tell them to "Turn Off LFA Sonar" by cutting off its funding.

And please forward this message to your family, friends and colleagues. NRDC used web activism to help generate a million messages of protest to Mitsubishi and, just last year, stopped the company from destroying the last unspoiled birthing ground of the Pacific gray whale.

Congress cannot ignore millions of us. Together, we can keep whales and dolphins safe from high-powered sonar.

Thank you for your time and your concern.

Sincerely yours,

James Taylor
Pierce Brosnan
Jean-Michel Cousteau

http://www.whalecenter.org

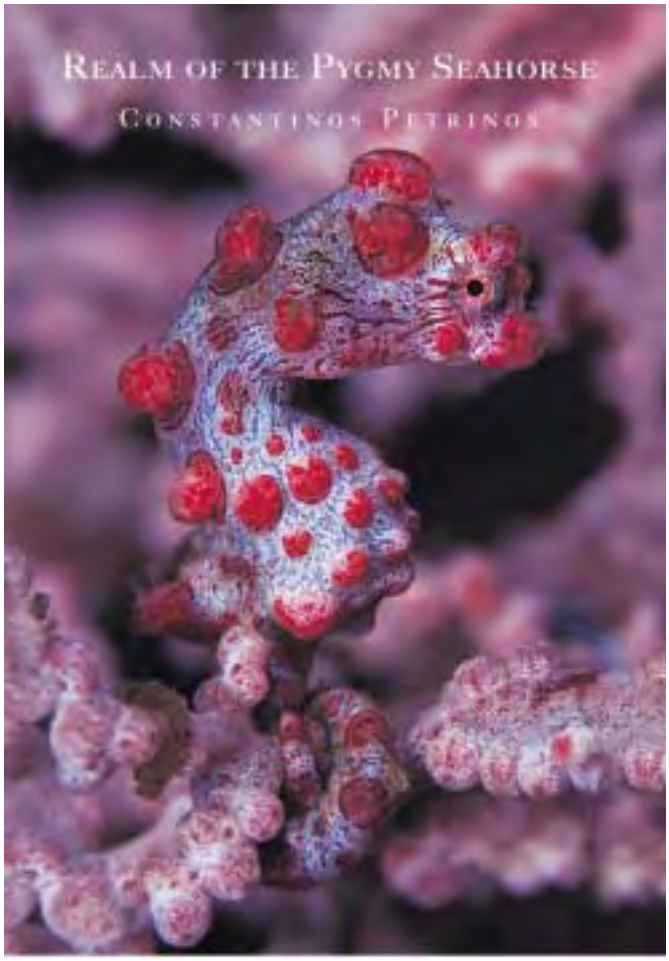
http://www.bornfree.org.uk

http://www.wdcs.org

http://ens.lycos.com/ens/jun2000/2000l-06-15-06.html

Realm of the Pygmy Seahorse

Reviewed by Anne Owen



Those of us who were lucky enough to be included on the distribution list of Constantinos' frequent e-mail 'newsletters' sent from Kungkungan Bay Resort while he was photographing for his book will feel that we have been waiting a very long time to see the final product - 'Realm of the Pygmy Seahorse'.

Well, the book is finally here and the wait has most definitely been worthwhile. This is an outstanding book, which will appeal to non-diving coral reef admirers, as well as to divers and underwater photographers. I read it at a single sitting, then went back to feast some more on the beautiful images.

Constantinos set out to document the immensely rich eco-system in the Lembeh Strait in Northern Sulawesi, Indonesia and in the course of 5 months, he completed 320 dives and took 25,000 slides, of which 280 are beautifully reproduced in the book.

Lembeh Strait is in many ways far removed from the traditional idea of an ideal underwater photographer's dream destination. There is little coral, visibility is often low and most dive sites are fondly described as 'muck dives', that is, the bottom is merely an unpromising slope of fine, black volcanic sand. However, Constantinos is able to reveal a complex community of surprising creatures with myriad highly specialised life-styles and a stunning variety of coloration, variously designed to aid concealment, warn would-be predators or attract potential mates.

Constantinos starts his book by putting Lembeh Strait into the context of the huge and populous country of Indonesia and explaining how this otherwise obscure corner of the planet came to be so highly valued by underwater photographers and marine enthusiasts. Throughout, he is generous in acknowledging the assistance offered him by the people of the area, especially the staff of Kungkungan Bay.

Arranged into chapters each one of which focuses on a different topic, the text and images work closely together to explain a number of aspects of the ecology of the area. Constantinos' writing is brim-full of nuggets of behavioural observations, such as how clownfishes become immune to the poisonous tentacles of their host anemones, or how species from cuttlefish to frogfish change and

use their colour. This could be rather dry, but his style is immensely readable and conveys strongly his personal passion for the natural world, as well as the great depth of research that he has done. He tells many anecdotes of missed photo - opportunities, flooded cameras and other disasters, but this cannot detract from his craftsmanship and the professionalism that he brings to his work.

The photography is not only technically superb, but often highly creative too. Unsurprisingly, there are few wide-angle images in this book, which is just one of many features that differentiates it from many other 'coffee table' offerings from underwater photographers. Portraits of fish and other animals in their natural environment make up most of the images, enhanced by a thoughtful layout and informative captions. Personal favourites of mine include a rare image of two male mandarin fish engaged in a fight on the reef at dusk, a tiny octopus making its home in a cockle shell and a breathtaking close up of the eyes of a smasher mantis shrimp.

In his introduction, Constantinos tells us of The Lembeh Strait Preservation Society efforts to achieve Marine Park status for the Lembeh Strait and expresses his wish that this book will provide a valuable resource to help them in that task. I am sure that everyone who reads this book will join him in that wish.

Review by Anne Owen, FRPS

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The Snapper builds into a neat system capable of creative pictures down to 150 ft, even in low visibility. It's so simple to use and, with prices starting at just £129, it's stunning value for money. This really is a breakthrough in price and performance. There's no better introduction to underwater photography.

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