





An experience without equal

At Wakatobi, you don't compromise on comfort to get away from it all. Our private air charter brings you directly to this luxuriously remote island, where all the indulgences of a five-star resort and luxury liveaboard await. Our dive team and private guides ensure your in-water experiences are perfectly matched to your abilities and interests. Your underwater encounters will create lasting memories that will remain vivid and rewarding long after the visit to Wakatobi is concluded. While at the resort, or on board the dive yacht Pelagian, you need only ask and we will gladly provide any service or facility within our power. This unmatched combination of world-renowned reefs and first-class luxuries put Wakatobi in a category all its own.



"After years of travelling to the best dive sites in the world and often experiencing poor conditions, we found Wakatobi Dive Resort. They have a perfect balance of luxury with outstanding diving."

~ Kate Pagdget-Koh



www.wakatobi.com

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Underwater Photography

A web magazine UWP92 Sept/Oct 2016



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Underwater Photography 2001 - 2016
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Publisher/Editor Peter Rowlands
www.pr-productions.co.uk
peter@uwpmag.com

New wrecks

Augusto Salgado's excellent article on the new wreck off Porto Santo, the second biggest island off Madeira, is yet another reminder of how a €345,000 investment in cleaning and making a ship safe to dive will turn into a multi million Euro boost to an island's economy.

It's not rocket science, really. Everyone wins and there's now a mature science on how and where to sink these ships upright.

I fully accept that they don't have the history and none of the 'mystique' of a traditional wreck but they are a magnet to visiting divers. In addition we have to realise that the wreck diving world is past its prime.

In the UK, for example, the James Egan Layne in Whitsand Bay, Cornwall was once the UK equivalent of the SS Thiselgorm in the Red Sea. A World War 11 multi cargo vessel sunk in an easily accessible 25 metres of water with little or no tidal restrictions. The trouble is she went down just over 70 years ago and recent winter storms are reducing her to a pile of scrap. Even HMS Scylla which was sunk just over 10 years ago is starting to show signs of decay.

I haven't been to Scapa Flow diving for a long time but I suspect the German High Seas Fleet which was scuttled nearly 100 years ago

Editorial

must be collapsing too. If ever there was an argument for an investment in new wrecks, Scapa Flow and Orkney must be the leading example.

The UK's track record in this department is laughable and shows no sign of improving. It's quite frankly embarrassing and I apologise on our behalf, again.

Canon 1DX Mark II Review

I was very pleased to see Backscatter's detailed review of this groundbreaking camera featured not only on their website but also as a front page feature on the excellent DPreview website.

I am not privvy to how or why it was used there but it's always good when underwater photography is featured on mainstream sites. Part of me wonders whether sales of such high end cameras have slowed down as we all realise we have a great camera in our pockets all of the time - our mobile phone - and that sales to underwater photographers might have become a significant part of their sales figures overall.

I speculate without any real facts as usual :-)

Photokina and DEMA

Every two years the photographic world exhibits at Photokina in Cologne, Germany and being in September it is perfectly timed for the build up to Christmas sales. Sure, there are several large shows internationally throughout the year but Photokina still holds a special place in the calendar and I believe manufacturers schedule their releases around this show whenever possible.

This year promises to be more eventful than ever with several camera models in need of a revamp to take advantage of improved chip designs and, for video, 4k capability.

Then we have DEMA in the US in November. This is a diving, rather than photography, trade show but it has a significant underwater photography presence with its Imaging Center providing a focal (pun intended) point for exhibitors and visitors alike.

The only problem for underwater photo equipment manufacturers at DEMA is that they have to put up with endless enquiries about will they be making housings for the latest announcements from Photokina.

We are served by some really good manufacturers but I do feel for them at this time of the two year cycle.

Increasingly higher ISO capability

I'm sorry to disappoint the measurebators out there but I have to go on record and say that I believe, for underwater photography, increasingly higher ISO capability is a complete red herring.

True, on land, you can capture that campfire sunset in stunning detail but we can't have fires underwater. In addition as the light levels fade, so too do the colours and no amount of higher ISO will actually replace those lost colours. Or have I missed something really basic and obvious? Please tell me if I have.

I accept that if you reduce to black and white there will be some amazing images with this new capability at much greater depths and that is a real advantage but for ambient light colour photography I can't see any.

Also most of you (I personally don't) go down with at least one, and probably two, 'pocket sunlight' strobes which restore the colour and then you will probably have to turn down the strobe power or the ISO to prevent over exposure :-)

I just don't buy it..

Peter Rowlands
peter@uwpmag.com

www.uwpmag.com

News, Travel & Events

Sailfish and the Sardine Run Gulf of Mexico & Isla Mujeres, Mexico February 4 - 10 and Feb 10 - 16 2017

Photograph sailfish hunting sardines in the blue water off the tip of the Yucatan Peninsula. Photographer Gregory Sweeney is your escort on our private charter that leaves daily from the docks of Isla Mujeres. We stay all day for the maximum time in the



water photographing and enjoying this incredible encounter. Only snorkeling gear is required. We charter the most experienced sport fishing guides who know the water and patterns of the sardines and predators. Limited to 5 passengers on boat plus guide and crew. This is an excellent opportunity for photographers to capture dramatic images and video. Freediving and excellent swimming skills are recommended in order to enjoy this athletic experience.

As an extra activity, we will do a Mako Shark cage dive and breaching excursion.

Limited to 5 and includes:
5 days on a private charter leaving

daily from Isla Mujeres for a full day looking for and freediving with sailfish and their baitball 6 nights in a beachside resort with swimming pool and shared room equipped with tv, free wifi, phone, AC (single available) weight belts A shared golf cart to help move equipment to/from the boat Light breakfast (at hotel) and Lunch (on boat)

www.gregorysweeney.com

Brooks Institute to close

The well-known photo school Brooks Institute has announced that it will be closing, ending a 70-year run. Brooks Institute was one of the few places that offered higher education in the field of underwater photography.

The Ventura, California, school announced at a staff meeting yesterday that the doors will permanently close on October 31st, 2016, and that all classes in the fall semester have been cancelled.

Just a day earlier, the Ventura County Star reported that there was a significant shakeup in leadership: President Edward Clift was dismissed by the school's new owner since 2015, Green Planet, prompting the majority of the board of trustees (4 members) to resign.

Brooks Institute had been struggling with declining enrollment, falling from 2,563 in 2005 to 350 students in 2016, VC Star says. The school had been reportedly been working on a move to downtown Ventura to attract more students, but owner Christine Lin apparently decided that shuttering the business entirely was the best decision instead of waiting to see if a turnaround would take place.

www.brooks.edu

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www.sirenfleet.com

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Lightroom Total Immersion Workshop: Little Cayman

Oct 29-Nov 5, 2016 & Nov 5-12th, 2016
with Go Ask Erin



Lightroom Total Immersion Fall 2016 will take place at Little Cayman Beach Resort.

This 7-day total immersion workshop is the perfect combination of fantastic diving and expert Lightroom training. You'll learn how to apply Erin's simple step-by-step workflow and image editing techniques to photos you shoot during the week at beautiful Little Cayman Beach Resort. This workshop is hands-on, high-intensity, and FUN! Think Bootcamp in Paradise.

The Total Immersion class sessions introduce a new concept or skill daily. Each day, another technique is added, building on previous work. As the days go by, a

practical workflow emerges and is repeated, all while enjoying gorgeous diving in the renowned Bloody Bay Marine Park.

In order to get the most out of this workshop, you must have basic computer skills and understand how to navigate your computer's operating system.

Week 1: Oct 29-Nov 5, 2016 (BEGINNER). Week 2: Nov 5-12th, 2016 (ADVANCED)

Lightroom Total Immersion is limited to 12 participants, in order to ensure plenty of one-on-one time with Erin.

Sign up soon - these spots will go fast!

www.goaskerin.com

www.uwpmag.com

GregorySweeney.com *Photography Adventures*
Scuba with Sea Lions
 April 2017

Sailfish Hunting Sardines
 February 2017

Wades Hughes' winner

This shot by Wade Hughes has just been announced as winner in Animal Portrait category of this year's Australian, New Zealand, and New Guinea Nature Photographer of the Year Awards.

Judge's comments:

The photographer turned a trumpet fish in whip coral into a study of linework and graphic colour. Well framed, with coral filaments flowing in from the opposing corners, and tightly cropped, drawing our focus to the beautiful central eye - stunning.



Red Whip Ambush, Painted Flutemouth *Aulostomus Chinensis*

Fish have few facial muscles to enliven their portraits but their behaviour opens up some opportunities. Here, a painted flutemouth hovers among the waving stems of red whipcoral. Patient and sharply watchful, it will be rewarded when a passing small fish or crustacean fails to notice its deadly presence.

South-east Sulawesi, Indonesia

Canon 5DSR, EF100 f2.8L macro IS USM plus Kenko 1.4x teleconverter, 1/250, f/16, ISO 100, 2 x Inon Z240

www.anzang.samuseum.sa.gov.au

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 App for iPad and Android Tablets
 By GERALD R. ALLEN & MARK V. ERDMANN

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SEE: www.reef-fishes.com for more information

"Definitive."
 - DIVE MAGAZINE

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 98 NEW species
 2,700+ NEW maps
 4000+ photographs

CONSERVATION INTERNATIONAL



THE SARDINE RUN
Shark & Shoal Diving Adventures

2016 Departures Still Available
www.TheSardineRun.co.za

“Shark in a Bus”



“Shark in a Bus” is our heritage marine museum housed in a 1957 Leyland bus, representing two lifetimes of collecting around Australia.

The collection represents all of Australia and was put together primarily in the 1960’s and 70’s. It features a giant Great White Shark (White Pointer) as well as whaling artifacts, fossils, sharks jaws and hundreds of other amazing exhibits. There’s even a sea dragon and pieces of the US space station Skylab!

We love our sharks and our curator Paul is keen to share a lifetime of sharky stories and experiences, as well as answer your questions about these incredible creatures.

Follow us on Facebook and check out our gift shop for fossil shark teeth and other cool shark stuff!

www.sharkinabus.com

Martyn Guess u/w photo courses



Learn how to take superb underwater images from someone whom knows how with a proven track record of award winning photographs.

If you are looking for one to one or group photographic courses please contact me. Maybe you want to brush up before a dive trip on key underwater photography skills or to understand how your new camera functions. Courses are structured for 1 day or weekends in the UK (Surrey) or overseas trips can be arranged.

Beginner to experienced photographers catered for from either the basics of underwater photography or perhaps you want to learn about super macro or snoot lighting or remote lighting for example!

Please contact me to discuss your requirements and availability.

www.martynguessphotography.com

www.uwpmag.com

Scubacraft SC3



Scubacraft is operated by a single person both above and below the water surface. On the surface, the combustion engine is used for power and directional control through a steering wheel and throttle arrangement. In order to submerge, the main engine shuts down and seals airtight. Occupants then fit scuba equipment before the craft sinks down into the water where electric thrusters provide the power and hydrofins control the direction.

In normal operation Scubacraft is designed to have slight positive buoyancy at all times, submerging under power using the thrusters. If at any time the craft loses power it will slowly float back to the surface in a controlled manner. If so required, Scubacraft will be able to lose its positive buoyancy in a special 'park' mode, thus allowing occupants to depart from the craft and perhaps swim off to explore inside a shipwreck before returning to Scubacraft.

Scubacraft features a system

of limiting the maximum dive depth to suit specific market demands. Scubacraft has emergency backup systems that ensure any system issues will result in the craft rising safely back to the surface. Even with total failure of the main buoyancy system, Scubacraft can snorkel its main engine at the surface and rise up onto the plane under power.

More advanced safety features include an automatic depth control (ADC) system that assists the operator in maintaining depth, controlling ascent and descent. VHF radio, underwater communications, lights and GPS are accessories that enhance safety and performance in operation.

Scubacraft also features an integrated SMB (Surface Marker Buoy) system that indicates its presence underwater to all surface craft and incorporates an EPIRB (Emergency Position Indicating Radio Beacon) transmitter.

www.scubacraft.com

Shark/Ray behaviour Lamave joins Philippine Siren in Tubbataha



While the Tubbataha 2016 season is barely over, we look forward to coming season, which is already filling up swiftly. Check out this exciting event in spring 2017: hop on board the Philippine Siren on our 29 March- 4 April 2017 – 6 nights cruise and get even more out of your Tubbataha liveaboard dive trip!

- Assist the LAMAVE team in monitoring tiger shark and gray reef shark behaviour.
- Join in for exploratory dives to deploy new acoustic receivers to track individual (whale) sharks, manta rays and analyse the gathered data from existing receivers.
- Help with identifying individual tagged species of (whale) sharks,

manta rays and turtles to be able to count their numbers.

LAMAVE - Large Marine Vertebrates Research Institute Philippines - is the largest independent non-profit non-governmental organisation dedicated to the conservation of marine megafauna and the protection of their habitats in the Philippines. They have been working with the Tubbataha Management Office and it's rangers since 2015 to assess the biodiversity, shark/ray behaviour and study the whereabouts of shark/ray species in the Tubbataha Reefs Natural Park.

www.lamave.org
www.wwdas.com

www.uwpmag.com

Bluewater Photo's SoCal Shootout September 9-11th, 2016

The 2016 SoCal Shootout is coming!! Bluewater Photo is excited to run this competition again, and registration is now open. This weekend long competition brings together underwater photographers of all levels throughout Southern California.

Starting Friday morning and spanning through Sunday night, participants have the opportunity to

shoot photos in the Pacific Ocean anywhere south of Pt. Conception to north of the Mexican border to be eligible. Continuing into its 6th year, entry for the competition is still only \$40. Those interested in participating can sign up online.

Entrants can enter up to 8 photos or three video entries, or a mix of the two. Please see the website for complete information and rules.

www.bluewaterphotostore.com/socal-shootout

How would you like to own the land by Hairball in Lembeh?

*For Sale :
Unique Lembeh
Coastline Land*

Lembeh in North Sulawesi in Indonesia is generally viewed as the world's top muck diving destination. And in Lembeh, Hairball is probably the most famous dive site.

Prime plot of 27,000 m² (coconut plantation) available (freehold), with fantastic views from about 320 meters of coastline facing Lembeh Island, next to the famous Hairball and TK1 dive sites.

The land has an existing quality 2-room bungalow, staff house, road (and sea) access, water and electricity (and back-up generator).

Enquiries welcome.

Contact Colin Marshall at
COLINTRMARSHALL@yahoo.com

Martyn Guess Scuba Travel workshops Dumaguete & Bali

For over 20 years Martyn Guess has been found on the back of a dive boat, camera in hand. In those years he's travelled the globe and photographed the marvels underwater extensively. Many UK photographers will have seen him at events up and down the country, as well as seen his work picking up prizes at UK and International competitions.

Now, he's sharing all that experience. In 2017 Martyn will run photography workshops with the UK's leading dive tour operator Scuba Travel. Very special destinations have been chosen for these inaugural trips, Dumaguete (Philippines) in April 2017 and Bali (Indonesia) in August 2017.

The workshops are aimed at intermediate shooters, looking to master more advanced techniques. Most days there will either be presentations on a specific topic or group image reviews. Group post processing sessions will be encouraged.

Both trips have been carefully



timed for the marine life. Dumaguete promises to be a macro fest whilst The Best of Bali trip is a more varied workshop, with both superb macro but also great wide angle opportunities .

Scuba Travel's complete workshop packages are fully ATOL bonded and include Cathay Pacific flights (40kgs hold), airport transfers, all your accommodation, dives and the photo workshop. The dive centres have been chosen for their outstanding photographic support.

Join Martyn in Dumaguete for £3150 per person or in Bali for £2545 per person.

www.scubatravel.com



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The Revolution is Now

And it starts with the **Nikon D500**

Choice of Port System:

- New Dry Lock (DL) port system for maximum flexibility, improved security, and expanded support of popular larger diameter lenses
- Four Lock (FL) port system model for legacy users who want to use their older Ikelite lens ports

Choice of Flash Options:

- Pre-installed manual electrical flash bulkhead and hotshoe for the fastest and most reliable triggering with most popular underwater strobes
- Optional TTL hotshoe and Nikon TTL Converter provide true strobe communication between the camera and Ikelite DS strobes
- Optional remote strobe triggering via extension cord or optical slave sensor; third party accessory support for triggering via Pocket Wizard transceivers

Choice of Depth Rating:

- 50' (15m) back for shallow water, pool and surf use makes the system lighter and easier to handle at the surface of the water
- 200' (60m) back provides access to almost every function and withstands daily use up to recreational dive depths
- Enjoy the best of both worlds; backs are available for purchase separately to mix and match

Standard Features:

- Vacuum valve standard on DL models; optional on FL model
- Supremely functional control layout with access to all important camera features
- ABC-PC and Lexan construction is strong and fundamentally corrosion resistant
- Balanced aluminum base with left-hand quick release handle
- Made in the USA

New Products

Nauticam NA-1DX MKII for Canon EOS-1DX Mark II



Nauticam is proud to announce a new underwater housing crafted specifically for the latest Canon flagship full frame digital SLR camera, EOS-1DX Mark II. Canon calls the 1DX Mark II “the ideal tool for any professional image creator.” 1DX Mark II is a class leading still photo camera and a professional level 4K video system wrapped in a single body. This is an incredible advantage for an underwater shooter!

Nauticam housings are evolutionary marvels, with advancements from previous systems providing the foundation that new models are built on. The new Nauticam NA-1DXII housing incorporates advances from the Nauticam housings that came before it, but features enhanced ergonomics,

more and better control access, and reduced size / weight thanks to cutting edge manufacturing processes.

There is clear continuity within the Nauticam DSLR lineup, and this consistency in control layout is something that professional image makers appreciate. Whether using a 1DX Mark II, 5DSR, or 7D Mark II the control access is remarkably similar, and instantly familiar.

At first glance it seems that Nauticam engineers have literally thought of everything. The truth is, they just listen. The thousands of Nauticam users, constantly in the field, have thought of everything. The engineering team integrates this user feedback, and the product line gets better and better with every new model release.

The NA-1DXII Housing comes standard with twin Nikonos flash connectors and an optional LED flash trigger is available for rapid fire optical triggering (manual power), and a new TTL Flash Trigger enables automatic flash triggering!

No system is easier to assemble or break down. The camera drops into the housing with a quick release camera tray. No controls need to be preset, as housing functions for dials and switches align automatically. The large 120mm housing port opening allows even the largest popular pro Canon wide angle lens (11-24mm f/4) to be used, and the camera can even be mounted in the housing with this large lens attached.

www.nauticamusa.com

ACQUAPAZZA

NEW TYPE

Underwater Housing for the Sony α 6300

APSO-A6300

ZEISS 50mm Macro, 12mm Wide and 16-70mm that are suitable for high image camera were added.

<http://acquapazza.jp/en>

Nauticam
innovation underwater



NA-A6300 Housing
for Sony A6300 Camera

www.nauticam.cn

Nauticam 蓝天海

Ikelite housing for Panasonic Lumix GX85, GX80, GX7 Mark II with TTL



So far Panasonic leads the game in 4K digital cameras and this latest series is no exception. The GX85/GX80/GX7 Mark II is great for any photographer seeking cutting-edge technology in still and video capture in a compact and travel-friendly body.

Panasonic is known for proving a straightforward and highly customizable control set. We extend this underwater, providing larger controls and push buttons which are easy to access even with thick gloves. Whenever possible, controls are located in the same configuration as on the camera to replicate the muscle memory and familiarity you've already developed by using your camera on land.

Control symbols laser engraved into the back of the housing will never peel off or fade even with years of

use. The camera's large, super-bright LCD screen is viewable edge-to-edge through the back of the housing.

Our latest front-loading camera mounting system makes installation and removal a breeze. The camera mounting plate allows ready access to the battery and memory card, and features a standard 1/4-20 mounting point for attachment to a tripod topside.

www.ikelite.com



APSO-A72

Underwater Housing for the Sony ILCE-7M2/7RM2

At 42.4 megapixels and an ISO of 409600
You can take a full-sized
mirrorless SLR camera underwater!



<http://acquapazza.jp/en>

NEW MIDX HOUSINGS



NIKON MDX-D500



CANON MDX-80D



SONY MDX-α6300

WWW.SEA-SEA.COM **SEA&SEA**
THE UNDERWATER IMAGING COMPANY

Easydive Leo3 Plus



100%
MADE IN ITALY

After 8 years of projecting and developing Leo1 & Leo2, continuous research and electronic implementation, we believed it was time to approach the international market through a brand new prosumer universal housing!

The Leo3 Plus shows several enhancements: e.g., being slightly higher, allows the camera built-in flash to pop up so to better take advantage of the standard double optical fiber connection;

- Double standard Nikonos 5 pin flash connectors: inside, a switch allows selection between different modes: 5 or 3 pins, syncro, 1 or both active connections;
- The electronic control unit may be switched on/off underwater, which results in the possibility to take advantage of cameras auto-off. When the electronic control unit is switched off, the camera goes stand-by. To



100%
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switch it on again, simply light the unit and push the shutter button. That way the camera may be switched on/off as you like;

- Porthole ring at your choice, which makes leo3 compatible with most ports available on the market, even other brands'. In a nutshell, at the front of the housing the standard leo3 port ring (equipped with a blocking system) may be replaced by the leo2 adapter ring or by other brand's rings upon request. Thanks to this device, nothing changes on the port focal point and therefore no changes to the camera support tray are required;
- Visible and audible leak alarm performed by 4 flashing led;
- Predisposed for vacuum system (optional).
- The only one Lifetime warranty!!!

www.easydive.it



Nauticam NA-RX100IV for Sony RX100 IV



"Amazing 4K Compact"

With the ability to shoot stunning 4K video and 20mp stills, this camera and housing package offers image quality approaching that of an SLR system with the size and convenience of a compact. Controls are simple, but well thought out with easy to access push buttons. Dual command dials immediately access frequently used manual settings like Manual Focus, F-Stop, and Shutter Speed. The addition of excellent wet lens options make for one versatile, powerful, compact package.

www.reefphoto.com

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Sea & Sea MDX-a6300 Housing



The new compact housing for Sony Alpha a6300 mirrorless digital camera, the SEA&SEA MDX-a6300 housing features two accessory ports, luminescent buttons, external port lock and lens release, LCD tilt allowance of 10-degree, and many more.

Compatible with both the Sony α6300 and the Sony α6000 by replacing the included accessory rubber caps.

The weight of the MDX-α6300 is roughly the same as the MDX-α6000. However, the underwater weight has been improved by redesigning key components and precision machining.

A very compact system that produces excellent images.

The MDX-a6300 is compatible with SA8 accessories, making it a compact, high quality system.

Also available in limited edition orange finish

The Sea & Sea MDX-a6300 (SS-

06182) will be Available in August 2016.

Material : Corrosion-resistant aluminium alloy (machined)

Depth Rating: 75m

Dimensions (WxHxD): 195mm x 125mm x 100mm

Weight: approx. 1,265g (housing only)

www.sea-sea.com



Nauticam NA-D500 for Nikon D500



“A New Era”

With 153 focus points and 10 fps continuous shooting, there has never been a Nikon DX camera with the level of autofocus and continuous shooting capability as the Nikon D500—not to mention the revolutionary addition of 4K UHD video. This extraordinary camera demands an equally impressive housing, and the Nauticam design team has left no detail overlooked. In addition to the superior ergonomics for which Nauticam is renowned, each NA-D500 comes with an installed manual optical flash trigger—standard!

www.reefphoto.com



High definition in the palm of your hand.
APSO-RX100M4

Underwater Camera Housing for SONY RX100 M4



<http://acquapazza.jp/en>

UW Technics Optical/Electrical TTL Converter for Nauticam housings for Nikon cameras



NN-2/IS supports both optical and electrical strobe triggering and is compatible with popular strobes from Inon and Sea & Sea. In this case, optical strobe triggering is the way to go. The full functionality of the system is supported, and it eliminates the problematic electrical sync cables from the equation.

For Nauticam underwater housings for Nikon D4 and D4S, we recommend UWT-NNV2/D4S.

Most of the supported Nikon cameras have a pop up flash, and when used with these compatible strobes already offer automatic flash control. In these cases the main advantage of the flash trigger is speed. The recycle time of the camera's pop up flash is no longer a limitation, meaning continuous shooting and rapid fire sequences are now possible!

TTL is undoubtedly an important feature, but there is no disadvantage



in manual flash modes when you want them. This one product can serve as both a TTL Trigger (with optical or electrical sync) AND a manual flash trigger.

UW-Technics TTL Advantages:
Continuous Shooting (in both TTL and Manual Modes, up to the capacity of the external flash for continuous shooting)

Faster Shooting response
Increased Camera Battery Life
Less Heat, and Lower Risk of Fogging

Increased Reliability Over Traditional Electrical Sync TTL Options

Compatible Strobes:

Inon D-2000, S-2000, Z-240

Sea & Sea YS-D1, YS-D2

Support for other strobes coming soon!

www.nauticamusa.com

FROM POINT & SHOOT TO PROFESSIONAL



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THE OLYMPUS TG-4 AMAZING SUPER MACRO



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BACKSCATTER.COM

Neoprene Rear Cover for Ikelite 8" Dome Ports



Two velcro strips attach this clever pouch to the back of the Neoprene Front Cover for 8" Dome Ports to protect the inside of the dome from dust. A durable plastic top zipper opens a compartment to store lubricant, spare o-rings, allen wrenches, and other small parts right where you need them.

9 x 6 x 0.5"
1.6 oz
0.35mm neoprene
Plastic zipper
MSRP \$10

www.ikelite.com

Nauticam NA-G7XMKII available now!



Nauticam is pleased to unveil NA-G7XMKII, the premier underwater housing available for Canon G7X Mark II. G7X Mark II camera stands out from a crowded class of advanced compact cameras thanks to its overall image quality, snappy autofocus, excellent manual white balance, and useful built in macro mode. This impressive feature set, paired with the most ergonomic, rugged, and easy to use underwater housing available forms a perfect underwater imaging combination.

Depth Rating: 100m
Weight: 900 g
Dimensions: 150mm x 103mm x 110mm (W x H x D)

www.nauticamusa.com

THE NEXT GENERATION YS-D2 Underwater Strobe



READY & TTL
AUDIBLE CONFIRMATION
DUAL POWERED
MODELLING LIGHT
ILLUMINATED REAR
CONTROLS (BACKLIT)
FASTER RECYCLING TIME
WIDER EV RANGE
AND MORE...



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SEA&SEA
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Deepshots gear range keeps expanding



Shameless advertising maybe but I wanted to say a few words about the current Deepshots missing bits gear range. Since I started experimenting with 3D printing about two years ago I had 2 designs in mind. They were for the Olympus Zuiko 12-50mm and the Olympus Zuiko 9-18mm. Although the 12-50 is still the best seller gear, due to the fact that no good alternative manufactured gear exists, the range has grown.

Today the range has grown to cover 12 Panasonic and Olympus lenses. Another really popular unit has been the Olympus 14-42EZ gear. Although being a kit lens with many Olympus camera the company never bothered to make a zoom gearing for it. Remember that Deepshots gears can always be used with both Olympus and Nauticam housings.

I have shipped gears all around the world from Brazil to Japan

and the gears are even sold in few underwater photography shops from UK to Cayman islands. There has also been few interesting custom gear projects. I have worked with UK based TV and film companies usually around their spanking new Sony A7 system, which seems to be very popular with such companies. Some Deepshots gears ended being used in a BBC documentary “Life that Glows” with David Attenborough. Talk about celebrity endorsement!

If you have a special lens and want to use it for underwater photography but no manufacturer makes a gear for it.. drop me a line. I might be able to help. Meanwhile if you are micro four thirds user head to my little shop and see whats' available from the stock: Deepshots missing bits gear shop

www.deepshots.co.uk



Nauticam NA-A6300 for Sony A6300



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Aquatica news



Aquatica is pleased to announce that we will have available in September 2016 housings for the Canon 1DX MKII, Nikon D5 and Sony A6300. More information will be available soon...

www.aquatica.ca

HugyFloat



The HugyFloat system creates a 100% neutral buoyancy for your camera or video equipment. This innovative system is adjustable on-the-spot (at the start of the dive) and will guarantee a neutral buoyancy - due to its constant volume - throughout the dive at any depth.

www.hugyfot.com

Mangrove V30 Video Light



Videocompact V30, amazing new video & focus light with white, red, blue (ultraviolet) lights. We have packed a lot of features in to a very compact package this time around. To start we have a massive 5600 lumens of white light to cover all of your regular lighting needs, which we give you 2 different levels to choose from.

www.aditech-uw.com

Gates housing for Canon ME20

Gates Underwater Products has announced the release of their housing for the Canon ME20F-SH low light camera. It is integrated with the Transvision StarliteHD OLED monitor in the Gates Starlite ST5 housing. The system is designed to offer the ability to capture low light scenes using natural lighting underwater like coral spawning, natural bioluminescence and predator activity at night.

www.gateshousings.com

A red and black AquaTech camera housing is shown resting on a rock in a shallow, rocky stream. The background shows water flowing over rocks.

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NA-D500 Housing for Nikon D500 Camera

www.nauticam.com nauticam.smugmug.com

Ikelite Wide Angle Ball Arm



This is a great choice to mount almost any strobe or video light to an Ikelite quick release handle. The two segment arm is easily adjustable on-the-fly and perfectly suited to any shooting scenario from macro close-up to super wide angle.

Our 1-inch ball components feature a groove and o-ring to prevent slippage for improved holding power with less force. While underwater, clamps may be finger-tightened to keep lighting in place yet allow repositioning without loosening the clamp. All parts are hard coat type III

anodized for a long lasting, scratch resistant finish. Ikelite 1-inch ball components are compatible with most 1-inch arm system components from Aquatica TLC, Ultralight, Sea&Sea, INON, Nauticam, and others.

The slotted arm sections provide opportunities to mount an additional lightweight accessory almost anywhere along the length of an arm by adding a Sliding Ball Mount.

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i-Divesite SS-1 & 2 Symbiosis lighting System

A complete underwater lighting system for UW photography and videography. A revolutionary 2-in-1 solution with strobe and video light in same package.

i-Divesite has answered underwater photographers cries all around the globe and released a system that has a powerful strobe and a powerful video light in the same package. Both the strobe and the 2000 lumen LED light take their power from 4300Ma Li-ion battery pack. The battery and the light head can also be interchanged so future light upgrades will be available. The symbiosis' auto mode, whist not STTL, provides accurate exposures and works with all digital cameras.

You can also use the white or the red mode of the video light unit as your spotting light as it dies down when the flash fires. The SS-1 flash has a guide number of 24 and if you need some more power see the SS-2 model that has a guide no of 32.

Features:

- Guide no 24
- Red light spotting light mode
- 3400mAh Li-ion battery pack: up to 1000 flashes per charge (when not using the video light)
- Standard YS-type fiber optic cable connection
- 0.8s recycle time from full discharge



- 2000 lumens video light, with 100 degree beam (interchangeable)
- Video light burn time: 100 minutes (full power) (without using the flash)
- Video light colour temperature: 5700K (Ra80)
- 8 step video light power setting
- Depth rated to 60m
- Weight on land: 970g
- Included in the box: Battery pack, Wall charger, Strobe diffuser, YS and 1" Ball mounts, Spare O-ring kit, Light head opening tool

The SS-2 is the bigger brother of the two SS units with 32 guide no flash output

www.oceanleisurecameras.com

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Store owner Marco Heesbeen won a Golden medal at the CMAS World Championship of Underwater photography.

You're gonna need a bigger boat

Aquatica A6300 housing for the Sony Alpha a6300

The Aquatica A6300 is a housing designed to be small, compact and easily handled just like the camera that it is designed for. With 24 MP stills and 4K video capabilities coming in at a retail cost of \$1000 dollars, the SONY Alpha a6300 is a great camera for the beginner and professional Underwater Photographer alike.

At the core of the design is the shell, machined on a state of the art 5 axis CNC machine from a solid block of 6061 T6 aluminum alloy. The shell is then anodized and painted with a



black polyester powder coating. This type of finish is capable of handling the toughest conditions a professional photographer can throw at it.

www.aquatica.ca

Ikelite achieves a state of Zen



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Ikelite users, your voice has been heard. Ikelite SLR shooters have been asking for the Zen Underwater DP-100 Dome Port for Tokina 10-17 FE, in an Ikelite mount ever since its introduction. That wish has become reality in the DP-100IT.

The Zen Underwater DP-100 turned conventional dome port wisdom for a somersault with outstanding optical performance in a travel friendly form factor. Not only is the DP-100 the ideal dome for travel, but it goes places underwater that big domes fear to tread.

Designed specifically for the Tokina 10-17 f/3.5-5.6 Fisheye lens, the Ikelite version of this port will be available the second week of November. It's time to take your Ikelite housing to an enlightened state.... of Zen!

www.zenunderwater.com

Acquapazza Canon 8-15mm F1.4 port and Sigma MC-11 extension ring

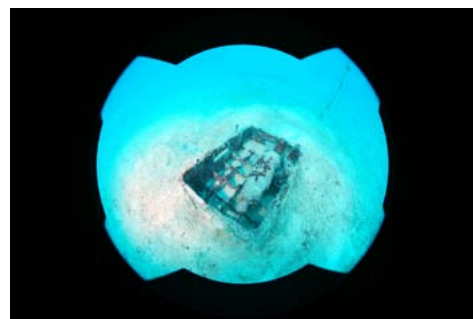


Japanese housing manufacturer Acquapazza have developed an extension ring for the Canon 8-15mm F1.4 lens. This lens can be zoomed by the control on the left side of the APSO-A72 (and also APSO-A7) housing and focused manually using the extension ring control knob. The INON Dome port 2 and shade are mounted on to the Acquapazza extension ring.

These two shots are at 8mm and 15mm. If the shade is removed it becomes a circular fisheye at 8mm.

This combination is well matched to the MC-11 Sigma Canon converter with an extension ring which provides fast autofocus at a reasonable price. The MF/AF control can be switched too. The lens name and focal length are also written in the EXIF data.

www.acquapazza.jp/en



8mm

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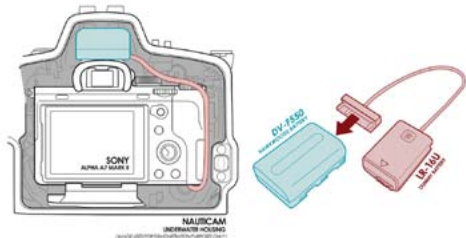


15mm



IKELITE HOUSINGS FOR THE NIKON D500

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The FG7X II Housing is manufactured to the highest professional standards of function, style and durability. It was purpose designed for the Canon G7 X Mark II compact camera. The FG7X II is the most compact, sturdy and ergonomic housing in the market for this camera.

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The FG7X II has been successfully depth tested to 80 meters (240 ft.) and dive rated to a maximum depth of 60 meters (200 ft.).

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Olympus TG-Tracker

by Jussi Hokkanen

If you are familiar with the Olympus Tough range cameras then you already know how the TG-Tracker feels and looks. The TG-Tracker is a miniaturised version of the tough camera that has been turned on its side. It feels very sturdy but also light. The first thing you will notice of course is the screen. The screen can be folded against the side of the camera or used as a more normal video camera flip screen. It is small and not necessarily the greatest quality screen I've seen but extremely handy thing as long as you resist poking it as unlike GoPro ones the TG-Tracker screen is not a touchy one. This is due to the fact that it needs to be able to take 30m pressure as the whole unit is waterproof as it is without any extra casings. It goes without saying that the Tracker body is also shock-freeze-dust-etc-proof, so it is ready for some rough handling.

The Olympus TG-Tracker is called TG-Tracker because it tracks what you are doing. Built-in to the camera there are sensors for Altitude, Depth, Temperature, GPS location and Acceleration. You can see this data live when logging or later as a log file that you can download and view with Olympus' free to use app for smart phones. Even if you are not filming and in case you are lost in the wilderness you can still use the TG-Tracker, for example as your compass.

Another interesting feature in the TG-Tracker, that is missing from GoPro cameras, is the built-in electronic image stabilisation. After a quick test I can say that the image stabilisation works but it's



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not really comparable to the proper Olympus PEN image stabilisation systems. Remember that turning the stabilisation on will limit your angle of view.

The TG-Tracker camera angle of view is wide! When not using it in its 4K mode and image stabilisation turned off the angle is 204 degrees (diagonal). That's crazy wide as the camera actually sees behind itself. It quickly became apparent during my test that the 204 degree footage has some extreme fisheye looking distortion, which is not necessarily anymore pleasant in a moving image. Any movement of the camera makes the periphery of the frame wobble weirdly. This was especially visible in video which had straight lines

near the frame edges. The TG-Tracker's "narrow angle" mode without the stabilisation is more traditional GoPro-like 150 degrees, dropping to 125 degrees respectively with the stabilisation on. I found both these modes more pleasant to use. For underwater none of the above modes are unfortunately usable.

As mentioned earlier the Tracker can be taken underwater down to 30m depth without a housing. I'm used to dive with proper O-ring sealed housings so a small jump of faith is needed with the Tracker as it only has small gasket around the battery compartment door. There is also another waterproof seal to consider as when taking the

camera underwater you will need to interchange the standard convex lens port for a flat underwater one (supplied). The convex port for topside use sits too close to the camera lens and once in water will result in a blurry image. Some might remember the early GoPro issues with domed housing ports and many 3rd party fixes that popped up from nowhere to deal with the issue. The problem here is the same; The TG-Tracker is myopic underwater with the standard port. Once the flat underwater port is attached and sealed you are ready to go. Your view angle however is limited to 95 degrees once in water. So still quite wide, about the same than GoPro and comparable to about 20mm lens (in old world terms).

Like all Olympus waterproof cameras the TG-Tracker also comes with an underwater white-balance mode. This is a valuable setting as currently there are no filters available for the camera. Olympus should really make an underwater filter as an accessory. This way they would have at least some hope of catching the diving market, which is currently almost totally held by GoPro. The TG-Tracker underwater mode works reasonably well near the surface but will peter out when going deeper.

The Tracker has a normal tripod socket so using any standard underwater trays or lighting systems will be easy. It's also supplied with a small mount that allows the use of any GoPro compatible mount or grip or adapter etc... However you don't have to buy a handle straight away as a very nice pistol-grip is provided with the camera.

Unfortunately the TG-Tracker is not able to



compete in image quality with GoPro cameras. The resulting files are mushy and high-contrast colours somehow make the images look dated. GoPro footage has always been famous from its natural flatness, which keeps the highlights from blowing out and leaves lots of space for post processing. Not the case with the TG-Tracker.

Did I mention 4K? Well the Olympus camera is able to record 3840 x 2160 resolution video on 30 and 60 frames per second on paper but when comparing the footage for the standard TG-Tracker 1080p file I do not really see much difference. I compared the Tracker 4K footage with GoPro Hero4 black 4K and you can't escape the fact that the Hero video quality is by far superior.

Of course we need to remember that the Hero4 Black is about £100 more than the TG-Tracker but still. The more fair comparison is the latter 1080p comparison with the Hero4 Silver.

The super wide-lens of the Olympus TG-Tracker is an interesting touch but in practice I think



it might just be too wide. Due to the huge barrel distortion the footage looks unnatural and the "narrow" 150 degree mode should be well enough and more useful in day to day filming. The Tracker lens also has an atrocious amount of chromatic aberration in the super-wide mode which is visible in all the images

Olympus has brought out something completely new in to the action camera market place: A fully waterproof, tiny, mega-wide video camera which can dive with you to 30m and back and even record the depth. This little thing will fit to any BC pocket and is easy to use as it does not need a clumsy underwater case. I forgot to mention it even comes with built in video light which also works as a torch in case you just need to find your keys. The "massive" 60 lumens output and the position just above the lens does more harm than good for underwater filming but can be handy in some dark topside close-up situations.

As a first generation model it's surprisingly



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well thought unit. There are a few niggles in the menus which I'm sure will be polished out in the future models (hopefully there are going to be some). Like the completely bonkers up-side down recording feature, which is hidden in to the angle of view menu. It took me good 10 minutes of desperation trying to find the feature as it is so easy to turn it on accidentally. (Hint: look at the little upside-down arrow in the field of view menu)

However the substandard sensor resulting in bad image quality is a major mistake from Olympus. How can they think they will be able to compete with the market leader that

already has 99% slice of the pie if you don't give it an up-to date sensor? Isn't Olympus a company known for high image quality cameras? I've used and reviewed a pile of amazing Olympus cameras over the years. Let's hope the TG-Tracker 2 comes out quickly and has a decent sensor and a better lens. I know Olympus is capable of doing this!

Jussi Hokkanen
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Zeiss Batis 18 Mm F/2.8 & Zen DP-200 Dome

By Phil Rudin

Zeiss the company founded by Carl Zeiss in the mid 1800s' is among the most renowned of lens manufacturers. The company offers a wide range of optical products ranging from vision care and medical use to camera and cine lenses. Among the Zeiss products is a line of lenses for the Sony FE mount mirrorless cameras. The Zeiss "Batis" line of auto focus lenses recently expanded to include an 18 mm F/2.8 rectilinear lens of exceptional quality.

For past issues of uwpmag.com I have reviewed both the Sony A7 II with the Nauticam NA-A7II housing (issue #86) and the A7R II with Ikelite A7R II housing (issue #90). In those reviews I pointed out that the Sony A7 lens line was a work in progress and that the system lacked a quality Fisheye lens and that wide angle prime lens offerings were mostly manual focus or non-Sony autofocus/manual focus lenses using mount adapters like the Metabones.

The Zeiss Batis autofocus lenses were specially developed for the mirrorless full-frame Sony A7 camera line. The introduction of the

Batis 18 mm F/2.8 autofocus lens is a giant step forward for underwater photographers using Sony A7 systems for both still and video work. The F/2.8-F/22 lens has a minimum focusing distance of just 25 cm (9.8 inches) with a reproduction ratio of 1:9.5, with a diagonal angle of view of 99 degrees, weighing 330 g (0.74 lbs), 77 mm filter thread and completely weather sealed.

The Zeiss Batis 18 mm is compatible with all Sony E-mount cameras and has a 27 mm equivalent on APS-C cameras like the A6300. The lens has an innovative OLED distance and depth of field display on the barrel which is quite useful for landscape photography but of no use inside an underwater housing where it can't be seen.

Zeiss is known for creating lenses with vivid and richly saturated colors, this lens definitely lives up to those exception. Zeiss T* anti-reflective coating has been applied to all lens surfaces to help minimize reflection and improve image clarity. The lens has a rubberized manual focus ring and linear autofocus motors





Striped Eel Catfish, Sony A7R II, Zeiss Batis 18 mm F/2.8, Nauticam NA-A7II housing, Zen DP-200 port, ISO 640, F/8.0, 1/200th

that are quiet, fast and quite accurate.

During my film days 18 mm rectilinear primes and the nearly equivalent Nikonos 15 mm at 94 degrees diagonally were the gold standard for underwater photographers. Most modern lens manufacturers have now opted for zooms to cover this focal length and 18 mm full frame autofocus primes are now as scarce as Hens teeth.

The Zeiss 18 mm is without doubt the best wide prime lens I have ever used. The Zeiss 18 mm has excellent image sharpness all the

way into the corners from F/4 on. The Zeiss Batis 18 mm is truly deserving of the legendary Zeiss moniker. The Zeiss 18 mm F/2.8 retails for \$1499.00/£1189.00.

Zen Underwater DP-200mm Fisheye Dome Port

High quality rectilinear lenses will not perform any better than a “kit” lens underwater if they are not mated with a quality dome port and proper extension when needed. I am asked all the time if a particular



Green Turtle, Sony A7R II, Zeiss Batis 18 mm F/2.8, Nauticam NA-A7II housing, Zen DP-200 port, ISO 200, F/9.0, 1/250th

lens will work with a port not really designed for that lens. I can't stress this point enough, if you are going to invest in a high quality camera and lenses you need to seek out the very best port combinations to complement your lens choices. Not all port combinations work the same when shooting with the Zeiss 18 mm.

For this review I was shooting the Zeiss 18 mm with Sony A7R II 42MP in a Nauticam NA-A7RII housing and my port choice was the ZEN DP-200 mm optical glass dome port. My kit included the Nauticam

N100 to N120 35.5 mm port adapter with focus/zoom knob and the Nauticam N120 by 20 mm extension.

Zen Underwater was founded in 2007 with headquarters located in Fort Lauderdale, Florida USA. Zen's goal has been to design and develop the highest quality optical glass ports available. All optical glass surfaces are coated with a magnesium fluoride broadband anti-reflective coating to minimize reflection and control lens flare for distortion free images.

I have used a verity of Zen Underwater ports since they were first



Schooling Batfish, Sony A7R II, Zeiss Batis 18 mm F/2.8, Nauticam NA-A7II housing, Zen DP-200 port, ISO640, F/8.0, 1/250th

introduced always with excellent results so it is no surprise to me that they are being used by hundreds of professional photographers world wide. The hand crafted Zen DP-200 (8 inch) fisheye dome port has a unique universal modular mounting system which can be adapted to Aquatica, Nauticam, Nexus, Sea

& Sea and Subal housings.

The Zen DP-200 port retails for \$1399.00/£1283.00 and ships worldwide with a removable metal dome shade and neoprene port cover.

Field testing the Zeiss 18mm

The Zeiss 18 mm is one of several lenses for the A7R II that need to be mounted onto the camera from the front of the housing before the port is mounted to the N100 to N120 port adapter. The 20 mm port extension needs to be mounted onto the port and the locking device needs to be secured before it can be mounted on the housing. The best workflow for installing the port is to mount the camera body in the housing with the lens cap on, switch on the vacuum alarm switch, secure the rear half of the housing in place, then mount the lens, install the port and then draw the vacuum.

Once the lens and port are mounted they will need to be removed if you forgot your flash card, need a new battery or did not switch on the optical flash trigger. This process becomes quite easy after a few assemblies. The Zeiss 18 mm draws far less battery power than lenses like the 90 mm macro so battery life is much less of a problem with up to three dives between batteries changes.

For best corner sharpness with the full frame A7R II camera I would try to stay in the F/8 to F/16 range although I got plenty of expectable images in the F/5.6 to F/7.1 range as well. I found the system balanced very well with my two Nauticam 10 inch float arms and 8 inch ball arms while using two Inon Z-240 strobes. Focus was spot on without the need for a focusing light.

With the Zen port I didn't see any reflections

from the port glass often associated with shooting at or near the surface. No white lens markings were showing up in my over/under shots and I experienced little to no flare with the dome shade in place. With a 77 mm filter you have room to spare in the N120 port.

At \$1499.00/£1189.00 the Zeiss Batis 18 mm F/2.8 may not be everyone's first choice for wide angle rectilinear but for those who have already spent \$3000.00+ for a 42 MP prosumer body it may make the most sense.

By comparison the Sony 16-35 mm F/4 zoom does not focus as close as the Zeiss 18 mm and at \$1350.00 for the Sony lens, with another \$175.00 for the zoom gear and 50 mm port extension the Zeiss 18 mm may actually be more cost effective. Along with Zeiss class leading image quality you also get a smaller overall system size and a stellar top side lens for travel, astro, landscape and more.

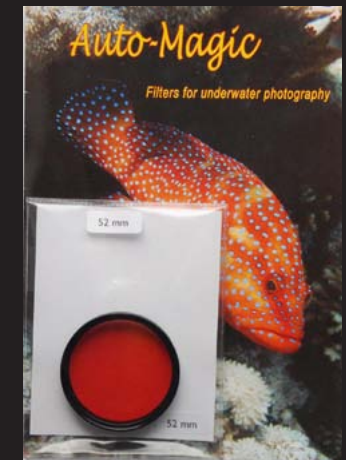
Thanks to ZenUnderwater.com for assistance with test equipment for this review.

Phil Rudin



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We've got you covered!



Magic filters are now available in 3 options. Original Magic for use in blue water with DSLR and compact cameras with Manual White Balance, Auto-Magic for compact cameras in automatic point and shoot mode. GreenWater Magic for use in green water with DSLR and compact cameras with Manual White Balance. Prices start at just £19.

The Auto-Magic formula is now available in a Plexiglass filter that can be added or removed underwater.

www.magic-filters.com

Nauticam WWL-1 Buoyancy Collar and Lens Cap

by Peter Rowlands

In my review of the Nauticam WWL-1 wet lens in UwP87 the only gripe I had was with the neoprene lens cover “I think a lens of this quality deserves better protection which a solid lens cover would provide.” In addition I pointed out that the lens was quite nose heavy and a buoyancy collar should really be an optional extra.

True to their reputation as a listening manufacturer I was sent both recently and I have to say that they really complete this great lens package and make it much easier to handle underwater.

To be honest there isn't really much that can be said about a quality, solid lens cap which clicks into place very positively and is easy to remove and fit. You will need a chunky pocket to keep it in during the dive as I would suggest that it's safer to take it with you and remove and refit it on the dive as the time most likely to suffer damage is when it is being handled prior to a dive.

The WWL-1 lenscap is slightly positive in seawater and there are two trains of thought about this. If it floats you should always be able to find it - conversely if it sinks and your are on the seabed, it won't go far. Either is personal preference and with a very, very small amount of weight you could achieve neutral buoyancy, which will be my choice.

A point to bear in mind is that if you were an early adopter of the WWL-1 lens you may need to return your lens shade to your Nauticam dealer to have retaining grooves machined in it and re-



anodized.

The WWL-Buoyancy Collar does what it says on the tin. The Nauticam WWL-1 wide wet lens has an equivalent weight underwater of 620g / 22 ounce but with the buoyancy collar mounted, the equivalent weight is reduced to 160g / 5.6 ounce. This makes handling over a long dive much easier on the wrists and being slightly negative means you can remove the lens and it will stay on the seabed while you shoot with the 14-42 lens.

You will need to fit an extension to the port removal lever as the collar would impede the standard lever. This is supplied with the collar.

The WWL-1 Lenscap is £74 in the UK and the Buoyancy collar is £47. They provide



solid solutions for a quality piece of glass and, when fitted, provide reassurance and handling performance which I would say is well worth the money.

www.nauticam.co.uk

Peter Rowlands
peter@uwpmag.com

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never equaled”

Nikon D500 Review

By Jim Decker

The D500 is Nikon's long awaited update to the D300. With blazing shooting speed and Nikon's first dive into 4K video, see how this camera performs in the water in our full review with images and video.

This camera is pro level in every sense. The tough as nails build quality is designed to take whatever extreme conditions that you're going to throw at it. Will it survive a total flood? No, but with the weather sealing it can stand quite a few splashes.

The speed of shooting is very impressive. Shooting at 10 frames per second in RAW with a lossless RAW buffer of 200 shots puts this level performance in the category of the Nikon D5 and Canon 1Dx Mk II which have 200 and 170 shot RAW buffers respectively-but at around 1/3 of the cost of these flagship cameras. In the underwater world where getting the perfect shot with uncooperative subjects requires spur of the moment reaction times and lots of shots to get "the one" perfect shot. The Nikon D500 makes this possible where few other cameras can.

The Nikon D500 inherits Nikon's latest and most advanced autofocus system, with 153 focus points, 99 of which are cross type focus points for



greater accuracy and speed. For wide angle moving subjects, it's no problem to set to AFC, hold down the AF-ON button and fire at will, even for small depth of field super close focus wide angle shots. In looking at the resulting shot sequences of the super close wide angle shots, the photos were all in focus despite continuously changing distances.

The auto focus with the 105mm macro lens was ridiculously quick and accurate. Even when a critter unexpectedly moved and I focused on the background, the focus snapped back in instantly. This level of performance continued to work with a super macro wet lens. Usually a super macro wet mount lens will make it tough for the camera to achieve autofocus due to the extremely small depth of field and extreme amount of defocusing. Most times looking



*For this turtle shot I used AFC with 153 point focus. I was able to hold down the AF-ON button and fire away at will while the camera tracked the focus of the nearest focus point, keeping everything super sharp as the turtle moved throughout the frame. This allowed me to fire shot after shot rapidly to give me lots of great shots to choose from for that 1 perfect shot.
Tokina 10-17 mm Nikon | ISO 200 | 1/125 sec at f/8*

throughout the viewfinder shows no discernible objects due to the non-existent depth of field, just showing a blob of color, but the D500 had no problem focusing even in these extreme conditions.

With all the recent mirrorless cameras that have come out in the past couple of years I haven't really had a chance to shoot SLR too much. I have to say that I have missed

having an optical viewfinder for wide-angle photography. Framing a highly backlit scene with an optical viewfinder is much easier too see as your eye is physically looking at the scene throughout the lens as opposed to a mirrorless camera that composes off the screen. In a heavily backlit situation the screen on the mirrorless will show objects in the foreground as dark silhouettes, making it difficult to



© Jim Decker

Framing through an optical viewfinder allowed me to accurately see the exact edges of the image as opposed to black outlines normally seen with mirrorless or compact cameras.

Tokina 10-17 mm Nikon | ISO 100 | 1/160 sec at f/11



© Jim Decker

Even shooting at a ratio of 2.25:1 macro with paper thin depth of field, the Nikon D500 had quick and accurate autofocus, with minimal hunting. The Aquatica flip diopter holder on the port of the Aquatica AD500 housing made flipping in a diopter for super macro a cinch.

Nikon 105mm VR | ISO 250 | 1/250 sec at f/40 | AOI UCL-09 Close Up Lens

tell your exact composition. Also the focus is faster than I have seen with recent mirrorless cameras, making getting the shot easier.

4K Video

About the only disappointing aspect of the D500 is the video implementation. While it does shoot 4K video, it does it on a much smaller area

of the sensor. It's a 1.5 crop factor, making the total crop 2.25 from a full frame camera. This makes the resulting video much less wider than in photo mode. While this won't work for serious video shooters, I can say that anyone wanting to pick up some video at a spur of the moment will be able to pull off decent looking videos. I was able to pull off a custom white balance even as deep as 45 feet

This stingray was traveling quickly across the sand and difficult to chase down. When it settled down to search the sand for food, it was only there for seconds. The speed of shooting the Nikon D500 allowed me to pull off a series of shots in quick succession to before it took off again.

Tokina 10-17 mm Nikon | ISO 100 | 1/250 sec at f/11



and have accurate looking color, but sometimes it took multiple attempts, sometimes many, to execute the white balance.

Conclusion

Pulling off successful underwater photos requires lots of shots on the spur of the moment to get the one shot that works. High performance photography is what this camera is all about. Super fast focus and fast rapid fire shooting with an almost limitless RAW buffer are the difference between getting the shot and not. At 10 frames per second and a 200 shot RAW buffer, you'll hardly ever run out of speed or capacity with this camera. The Nikon D7200 is only 6 FPS with a 18 shot RAW buffer,

and while the Canon 7D Mark II can match the speed with 10 FPS, you'll quickly run out of shots with a relatively small 31 shot RAW buffer.

On top of the great performance, the image quality is top notch compared to just about any APS-C sensor camera on the market, and will stand up against a few full frame cameras too. Could I pull off the shots in this review with a lesser camera? Sure, but the chances of actually pulling it off are greatly increased with the high performance of the D500.

Jim Decker
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Ikelite SonyA6300 review

by Phil Rudin

Ikelite Underwater Systems is a USA based company which has expanded its distribution network to cover most areas of the world during its over fifty years in business.

Ikelite has developed a large and loyal customer base built on a foundation of excellent customer support and product reliability.

During DEMA 2013 Ikelite debuted a new housing with a unique port system for the Canon EOS 100D/SL1 DSLR which I reviewed in issue #78 of UWPMAG.com.

At DEMA 2014 Ikelite debuted a new line of mirrorless camera housings featuring the same port system which I reviewed in issue #85 of UWPMAG.com using the Olympus E-M5 II housing.

In March 2016 Ikelite announced a housing for the new Sony A6300 camera which uses the mirrorless port system for Sony E-mount and FE-mount lenses and also offers a port adapter for the modular eight inch DSLR dome port. I had an opportunity to field test this new system on a recent trip to the Philippines and offer the following observations.

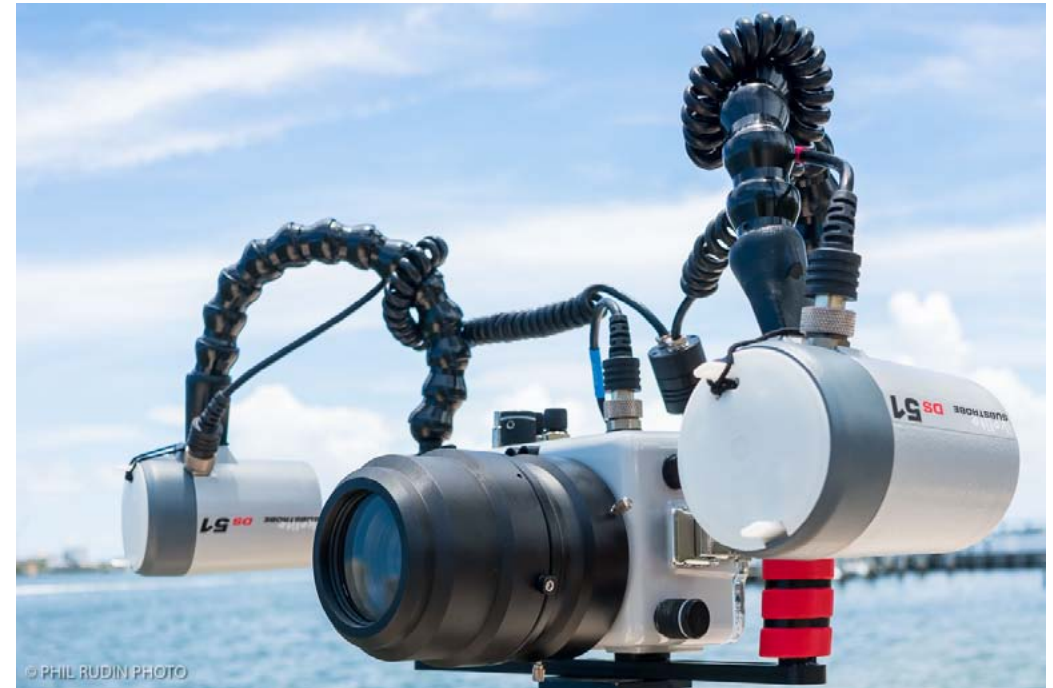
Sony A6300 Camera

The Sony Alpha A6300 mirrorless camera was announced in early February 2016 as the flagship camera in the mirrorless E-mount (APS-C) line which has evolved from Sony's NEX line of cameras.

The A6300 has been developed around a new high quality 24.2MP APS-C sized Exmor CMOS sensor and BIONZ X processing engine. The A6300 shoots 4K video in the Super 35mm format with full pixel readout and no pixel binning.

Improvements over the Sony A6000 include superior image quality, better ISO sensitivity from ISO 100-51200, advanced AF with 425 phase detection points, new dust and moisture sealed magnesium-alloy body plus much more. The A6300 has become one of the most highly reviewed and highly rated cameras in the APS-C sensor class.

The A6300 has the same focus peaking (showing a color for the in focus areas during manual focus) used in the Sony A7R II "pro" grade camera body and while many will never use manual focus it is nice to



know it is available if needed.

The most impressive features of this camera for me was the outstanding image quality, low light performance and the improvement in overall camera speed. I found that for underwater photographers the most

significant drawbacks with the A6300 are its rather slow 1/160th. flash sync speed in TTL, the rather poor battery life with the Sony 90mm macro lens and for videographers a continuing problem with manual white balance.

The Sony A6300 sells in the

US for an MSRP of \$998.00 for the body and \$1149.00 with the 16-50mm F/3.5-5.6 kit zoom lens. I consider the A6300 a value at this price point compared to many other APS-C high end mirrorless and DSLR cameras because of the outstanding image quality and feature set.

Ikelite A6300 Housing And Port System

The Ikelite Sony Alpha A6300 housing is a completely new design and very much like a smaller version of the Ikelite Sony A7R II housing I reviewed in UWPMAG.com issue #90. The A6300 housing features the same opaque gray ABS-PC polycarbonate material for the front section of the housing and a transparent DSLR style polycarbonate housing back.

The new color provides extra protection from the sun during long boat rides and allows better contrast when viewing the LCD screen. The new Sony A6300 housing much like the previous A6000 housing supports TTL for the complete line of Ikelite DS series TTL strobes using Ikelite electronic single or dual sync cords. Each housing has an integrated TTL encoding specific to the camera model tuned to Sony's exposure protocol. The TTL circuitry is sealed in a unit attached to the inside top of the A6300 housing with a sealed cable which attaches to the camera hot shoe. The TTL unit is powered by the Ikelite DS strobes and requires additional battery or maintenance. Exposure compensation in TTL mode is supported using the camera's built-in controls which can be accessed in several ways and assigned to different function buttons to suit the user's needs.

Strobes can also be fired in TTL using the two fiber optic ports on the front of the housing which



mimic the camera's on-board popup strobe. Fiber optic cables can be used with TTL strobes like the Inon S-TTL, Sea & Sea DS-TTL and more. The housing also includes a button to raise the on-board flash for people like me who forget to do so before entering the water. The older Nikonos SB strobes can also be used in Non-TTL mode with strobe to non-TTL Ikelite sync cords.

Every Ikelite A6300 housing is pressure tested to 60 meters (200 feet) and the ABS-PC construction provides corrosion resistance with a minimal amount of maintenance. The light gray color and clear back give a direct view of the main



Sofy Coral Fan With Diver, Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

O-ring seal and an excellent edge-to-edge view of the three inch 921,600 dot LCD screen. The A6300 housing has no pickup finder for the 1,440,000 pixel EVF which is of little use without an accessory add-on optical viewfinder which can't be installed in



(Above) Dwarf Hawkfish, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso125, F/18, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

(Left) Hairy Squat Lobster, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso200, F/20, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

this housing. I found the A6300 LCD worked well and I did not miss the EVF during my test dives.

The control buttons on the housing back are large and well placed for a housing of this size. Button control symbols are laser engraved on the back of the housing so they won't peel off or fade. All of the cameras essential button controls can be reached and most are accessed in the same way as when the camera

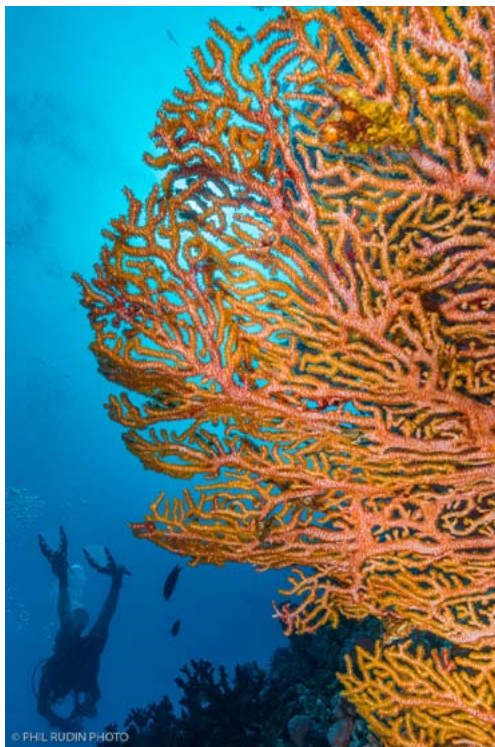
is being used above water even with gloves.

Since I am not a video shooter I reassigned a different function to the video button to prevent video recording which can occur if you accidentally bump the control button. It is quite easy to move the mode control dial to the movie mode and use the shutter button to activate video if an opportunity presents itself.

There is a shutter lever and a

(Right) Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso200, F/10, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

(Far Right) Nudibranch, Puerto Galera Philippines, Ikelite/Sony A6300 Housing, Sony 90 Mm Fe Macro Lens, Iso100, F/20, 1/160Th, Two Ikelite Ds 51 Strobes In Ttl Mode.



thumb lever for AF/MF & AEL which makes back control auto focusing quite easy and intuitive. If you prefer using the front shutter release level to auto focus that is the default setting for the A6300. Both focusing options worked equally well, however my preference is the back focus configuration which I used while shooting for this review and which I also use with my personal gear.

The housing also includes a lens release control which is located on the left side of the housing. This is a very useful control since several of the Ikelite supported lenses need to be mounted from the front of the housing while the port is removed. The camera is attached to the camera tray by a standard 1/4-20 screw, the tray allows access to the battery compartment and memory card slot without needing to be removed. When the tray slides into the rear of the housing both the lens release and rear thumb control lever

need to be raised to allow space for the camera.

Once the camera body is installed you can then slide the TTL sync cord into the hot shoe and secure it with a clockwise turn of the locking device. My suggestion is to keep the body cap on the camera and have the housing facing port side down at all times. The camera tray has no locking device and could slide out if tilted to far backwards. The back plate can then be secured to the housing using the two locking clamps which will hold the camera firmly in place.

A lens can then be mounted to

the front of the camera and the port is then mounted over the lens. Once you have installed the camera a few times this process becomes second nature. The housing has a zoom/focus wheel on the left side, some Ikelite dome ports also include zoom/focus control wheels.

Ikelite offers optional trays with one or two grips which can be used with removable ball heads for flex arms or O-ring ball heads for standard arm clamps.

The housing has two 1/4-20 mounting points on the bottom to attach the Ikelite tray and the tray has

a bottom tripod mounting point. Be aware that the assembled system is fairly light in salt water when using the eight inch dome and the macro port. I found no need for float arms or buoyancy floats to keep the system well balanced for use with one hand. I always keep the system slightly negative so that I can but it down if I want.

Ikelite offers a verity of ports to support both Sony E-mount and FE-mount full frame lenses. Supported lenses include the E-mount 16-50mm "kit" zoom, 18-55mm zoom, 16mm with the fisheye and ultra-wide

converters, 10-18mm zoom, 30mm macro Zeiss 50mm macro and Zeiss 12mm F/2.8 plus more. Sony FE (full frame) lenses include the 28mm with the fisheye and ultra wide converters, 24-70mm F/4 zoom and 90mm macro. Ikelite also supports the Canon 60mm and 100mm macro lenses using the FE to E-mount Metabones adapter. Keep in mind that the full frame lenses have a 1.5X crop factor on the APS-C sensor. Consult the ikelite.com web site for port charts as additional lenses are always being added as the system expands.

The A6300 housing tips the scales at 1430 g (3.1 pounds) without ports, the dimensions are 160 x 191 x 132 mm (6.3 x 7.5 x 5.2 in). The housing ships in the US with the waterproof bulkhead cap, lubricant and a manufactures one year warranty for an MSRP of \$975.00. Ikelite trays, arms, ports, gears, strobes, cords and more are sold separately.

Field Testing

I field tested the Ikelite A6300 housing system on a recent trip to Puerto Galera and Verde Island in the Philippines. My system included the housing, two Ikelite DS 51 strobes used with an Ikelite TTL dual sync cord, a ball arm strobe mounting system, Ikelite Gamma II light, eight inch modular port with port adapter 5516.80, Ikelite 5516.50 flat macro port and Ikelite 5516.70 port extension. The macro port was paired with the Sony FE 90mm F/2.8 G OSS macro lens and the eight inch dome port was used with the Zeiss Touit 12mm F/2.8 E-mount lens.

Both lenses are mounted to the camera from the front of the housing as I described above. I used different methods when mounting each port for best results. I found that mounting the dome port worked best when the port is face down on a flat surface.



Scorpion Fish, Verde Island Philippines, Ikelite/ Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

It is very easy to then lineup the housing over the port and push it firmly into place before screwing in the three retaining screws that hold the port adapter to the housing. The eight inch port is threaded and the port adapter screws into the port before it is mounted to the housing.

I strongly suggest that the O-rings and port threads both be lubricated regularly and disconnected every few dives if you don't want them to stick together. The mirrorless port adapter is only a few millimeters long so the eight inch port will sit close to the housing.

If you are using fiber optical sync cords with your strobes they should have the 90 degree mount and they should be installed before the dome port is mounted to allow clearance between the cords and back of the port. The port may rotate a bit causing the port shade to vignette. This can be avoided by centering the shade before you enter the water.



Dive Master Ramil, Verde Island Philippines, Ikelite/ Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso200, F/16, 1/160Th, A/V Light.

The Zeiss 12mm is a wonderful lens and with the eight inch port the configuration is near natural in salt water so I was able to handle the system with one hand. The Zeiss 12mm and the Zeiss FE 18 mm for the Sony full frame cameras have become my goto lenses for most wide angle when I want



the rectilinear perspective rather than fisheye. The size and weight of the Zeiss 12mm is impressive for such a high quality lens. The Zeiss 12mm F/2.8 is expensive at \$999.00 in the US so you may also want to consider the Sony E 10-18mm F/4 with the eight inch port for your wide angle needs.

Once I mount the Sony FE 90mm macro lens on the camera I carefully slide the macro port over the lens making sure I don't accidentally bump the manual focusing ring on the lens. The manual focus ring slides forward and back to switch between AF (forward) and manual (back) when shooting above water. This is a great feature for land photography but if the manual focus ring is bumped off the AF possession while installing the port, which by the way I have done several times the AF will not work.

The macro port installation process will then need to be repeated when the focus ring is reset. This is NOT an Ikelite issue it is a "pilot error" issue which has occurred using other manufactures housing when using the Sony 90mm macro lens.

The FE 90mm macro remains a bit of an enigma for me, with arguably the best or near best image quality of any macro lens made it still has drawbacks. The amount of battery power required to move all that outstanding optical glass is an issue

Sony clearly needs to address with improved battery life over its entire mirrorless camera line.

While I was able to do three tank dives using the Zeiss 12mm without need for a battery change I was lucky to exceed 170 images before the battery died while using the 90mm macro. The same short coming exists using the 90mm lens with the Sony A7R II which shares the same battery. The 90mm macro has three focus limiting possessions, full or infinity to 1:1, infinity to 0.5m and 0.5m to 1:1. These focus settings help to prevent the lens from "hunting" for focus depending on the distance to subject for which you are shooting.

I find the 0.5m to 1:1 setting to be the most useful underwater in most scenarios. Since most of us are using this lens for close focus, macro or super macro it makes sense to use this setting to reduce the "hunting". It takes a bit of getting use to because if you are to far from your subject the lens will not focus. The 0.5m to 1:1 setting forces you to remain in the distance range where this lens shines underwater.

I use Saga and Nauticam CMC closeup lenses which are designed for smaller sensor cameras when shooting super macro. The Sony FE 90mm macro retails for \$1098.00 in the US.

Other macro options for the A6300 include the Sony 30mm macro which works best for fish portraits and the Zeiss touit 50mm macro for smaller subjects. I have not used these lenses with the A6300 so you may want to look for other reviews before making an investment. Lenses like the E-mount 16-50mm kit lens can also be used for closeup and macro which can reach 0.9:1 at 46 mm with the Nauticam CMC-1 C/U lens. The Canon 100mm macro lens offerings with Metabones adapter seems a bit large for a compact system and may also use as much battery power as the Sony FE 90mm macro.

Since I am frequently ask about camera settings, I shot with the camera in manual mode at ISO 100-200 for most macro with the highest sync



Coral Fan With Diver, Verde Island Philippines, Ikelite/Sony A6300 Housing, Zeiss 12Mm F/2.9 Touit Lens, Iso100, F/6.3, 1/100Th, Two Ikelite Ds 51 Strobes In Ttl Mode.

speed which for A6300 is 1/160th using electrical sync or fiber optic cables, my F/stop range is from F/8 to F/16. For wide and fisheye lenses I shoot in manual mode at ISO 200-400 and 1/15th to 1/160th with an F/stop range from F/5.6 to F/16. These settings are a starting point and will change depending on the subject matter, water conditions, depth, time of day and more.

The Ikelite DS 51 TTL strobes work well with this housing reducing the overall size of the system while providing ample power. If you are looking for small travel strobes at an attractive price point the DS 51 should

be on your radar. The MSRP for the Ikelite DS 51 strobes is \$450.00 in the US.

The Ikelite A6300 housing is a great choice if you are looking for an interchangeable lens system that combines reasonable price, size and quality. Most A6300 users will be shooting with the kit lens to start and adding lenses and ports if they do not already own higher quality lenses.

Thanks to the Ikelite team for their assistance with the underwater equipment used for this review.

Phil Rudin

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Keep Calm and Hold Your Breath

by Josef Litt

In 1989 CEDAM International, an organisation dedicated to the preservation and conservation of the marine environment, brought together a panel of experts to draw up a list of marine areas worthy of special protection. This list was announced as the Seven Wonders of the Underwater World. It will hardly come as a surprise that Galápagos Islands feature on this list. I believe that the exceptional underwater life around the two most northern islands of the archipelago, Darwin Island and Wolf Island, is the reason for this recognition.

Darwin Island lies 160 km northwest of Isabela, one of the main islands of the Galápagos archipelago. The island does not provide a natural berthing place so it is no wonder that the first land visit happened only in 1964 with a help of a helicopter. The massive tip of a now extinct and mostly submerged volcano, that rises a thousand meters from the sea floor, now offers nesting and breeding opportunities to many sea birds.

Winds and waves formed an impressive stone arch on a rocky outcrop located less than a kilometre away from the main island. The formation is known as Darwin's Arch and, in my mind, belongs to the top ten dive sites worldwide. The walls of the jagged rock underneath the arch are washed by raging sea currents frequented by whale sharks, whales as well as large schools of Hammerhead sharks.

Research performed in 2009 and 2010 by



Canon 7D, Tokina 10-17 Fisheye @10 mm, Nauticam NA-7D, ZEN Underwater 100 mm dome port, ISO320, f/13, 1/60 sec, manual exposure, no strobes

the Charles Darwin Foundation, University of California – Davis and the Galápagos National Park described the daily behaviour of the hammerheads. The sharks tend to stay close to the rocky areas, generally lazing around during the day. Occasionally they swim away from the island toward the open water and back. The longest recorded swim was 40 km out to open ocean and then back to the island. How they navigate is not clear. Klimley (1993) suggests that they use the

geomagnetism of the sea floor. In open water they dive deep (one tagged shark descended to 936 m) to recalibrate their inner compass. Primarily at night and in the open ocean they sometimes move erratically. It is fair to assume that this happens when they hunt squid, which present almost 90% of their diet (Castañeda-Suárez and Sandoval-Londoño, 2007).

It was getting late. When the sun sinks low above the horizon and the wind makes the surface



choppy, the light does not have much chance to penetrate deep. Four of us out of our usual seven were up for this dive. We encountered a big school of jacks shortly after a negative entry in front of the Darwin's Arch. My three buddies went to check the jacks out. I felt the low light would not suit a good picture. I stuck with our dive guide Juan Carlos and gave the others a few moments with the Jacks. As it took some time Juan Carlos and I moved closer to the reef to find a good spot for watching the hammerheads.

The hammerheads are shy creatures. Afraid of bubbles. It is almost certain that a hammerhead gliding lazily in a current will change direction if a diver exhales a good

(Above) Canon 7D, Tokina 10-17 Fisheye @17 mm, Nauticam NA-7D, Nauticam 8.5" dome port, ISO320, f/6.7, 1/90 sec, manual exposure, 2xINON Z-240 manual setting

(Top right) Darwin's Arch is 1 km to the southeast of the Darwin island and has a bridge-like appearance, which has been caused by erosion. The plateau's wall drops away into the sea, and the arch's ocean side features a "wildlife viewing platform" at 18 metres.

(Right) Canon 7D, Tokina 10-17 Fisheye @17 mm, Nauticam NA-7D, Nauticam 8.5" dome port, ISO320, f/6.7, 1/90 sec, manual exposure, 2xINON Z-240 manual setting



five metres away from the shark. One way to get close shots is to keep calm and hold your breath. The other way is to feed the sharks but it is strictly forbidden in Galápagos. The advice to hold your breath seems to be countering the basic rule of scuba diving yet diving with hammerheads at Darwin consists of sitting at a constant depth and watching them swimming around. Thanks to this technique I usually resurfaced with my tank half full after an hour in 20 metres....

And they arrived. One, two, five, eight, forty... There were moments I did not know where to turn my camera as they were everywhere. Over my head. From the left. The right. Behind me. I just screamed through the regulator when I thought I got a shot. I was on the verge of breathing through my ears but in the end it did not matter, the hammerheads did not have space to avoid my bubbles anyway. This took a good fifty minutes. Suddenly a nudge to my shoulder scared me to death! Hammerhead? No, Juan Carlos reminded me it is time to go back up.

My buddies were on the boat already. It turned out that they were swept away by a current whilst they took pictures of the jacks. They had to resurface after nine minutes as the current carried them into the dangerous rocky area, which we



called the "Deadly Sector #1". Thanks to all of them for spending almost an hour on the boat waiting for the two of us.

Juan Carlos and I were ecstatic. The three were disappointed and raring for return. At least this is how Theresa described the feeling later. If I was them I would perhaps choose harsher words to express the mood of the moment. Juan Carlos called this the dive of the year so far. I do not have such an experience to compare but it certainly was mental!

Josef Litt
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Wreck Diving in Porto Santo

by Augusto Salgado

It has been more than 20 years since I last dived in Porto Santo Island, the second biggest island of the Madeira's archipelago, that measures just 6 by 11 kilometres. One might struggle to find it on a map, but just look 40 kilometres northeast from Madeira and there it is. Contrary to Madeira, this island has a nine kilometres' long sandy beach, and it's known for its very clear and blue waters. And, with just a handful of hotels and restaurants, Porto Santo has been classified as one of the last 'undiscovered' resorts in Europe. The climate in Porto Santo, mild all year round, with a sea temperature ranging between 17°C and 22°C, makes this island always attractive, even in the winter.

Since 13th July this year, the island is also the home of a new artificial reef, the ex Portuguese Navy corvette General Pereira D'Eça. It was an excellent excuse to go diving in Porto Santo again.

With a group of nine other divers from the diving club I usually dive in Madeira, a trip was organized to dive on Porto Santo's new underwater park. On that day, we were going to do two dives with the support of a

local dive club, just after the arrival of the daily ferry. Everyone was eager to see the new spot, as very interesting images were already being shown on the Internet.

The process to sink this ship started in 2014, and had a total cost of 345 thousand euros (85% came from the EU). The ship was prepared in Lisbon and then towed to her final destination, when ready to be sunk. According to local government, Porto Santo was chosen in order to diversify the tourism on offer in what is known as the "golden island".

This new wreck was sunk near the island's other wreck, the MV Madeirense that went down in 2000. They are just two nautical miles apart

The MV Madeirense stern almost covered with schools of fish. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic Strobes. ISO 400 1/80th f9

Divers start to explore the MV Madeirense's with schools of fish around them. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic Strobes. ISO 400 1/80th f9



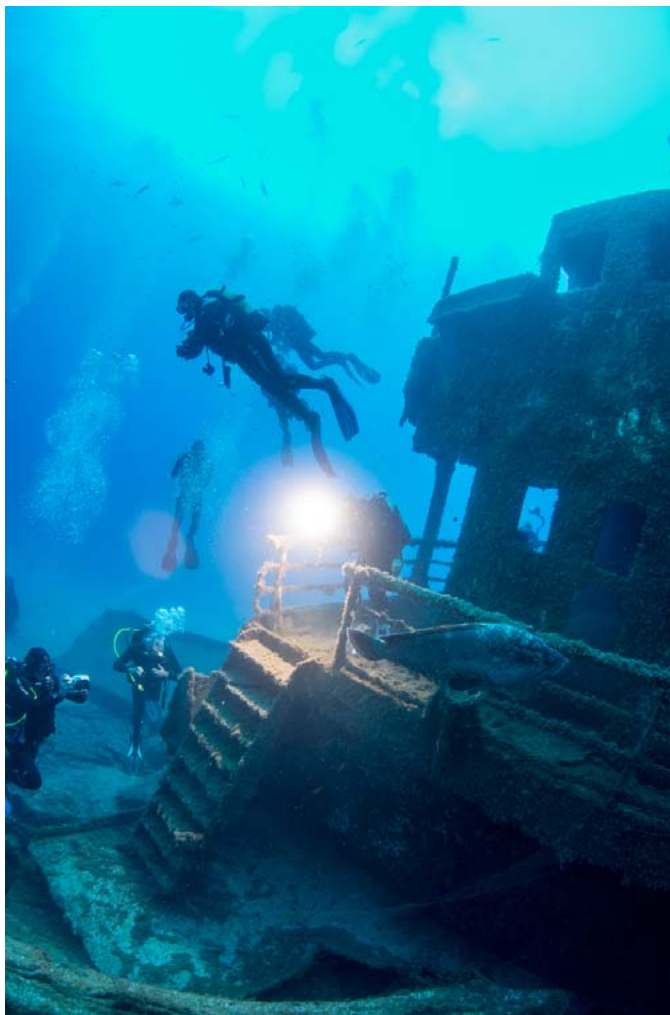
in a less than 10 minutes trip from the harbour. With this new wreck, an underwater marine park was created, and there is hope that the diving activity, that represents already 5 to 10 % of the income of the island, will increase.

As planned, we departed early one morning from Funchal, on the daily ferry that returns everyday late in the afternoon. As we needed to take all our diving equipment with us, except our tanks, we decided to take one car, instead of carrying it aboard the ferry. On arrival, we went straight to the pier where the diving boat was docked, as we were on a tight schedule.

With all the diving and photographic gear ready, we headed first to the Madeirense, which is known for the great amount of marine life that gathers in and around her. We could see that immediately after we started descending, as schools of small fish almost covered the wreck. The wreck is already broken in two, with the stern still high in the water.

As we reached the wreck, the group split into pairs. She lies on a sandy bottom, around 35 meters deep. The visibility was around 20 meters and the water temperature was 21° C, so we were able to see most of the wreck and the marine life that lives in it. Going with Nitrox, we were able to stay on the wreck for the next forty minutes, exploring most of it. We were sad to return to the surface, but the computers ordered so, and we had the new shipwreck to dive next. I just had time to see the outside the wreck, so I took note that this one needed, at least, two more dives.

After an hour's break at the surface and with tanks changed, we were ready to dive again... it took less than 5 minutes to reach the new dive spot. As soon as we put our heads in the water we could



A busy moment on the MV Madeirense bridge. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic Strobes. ISO 400 1/80th f9

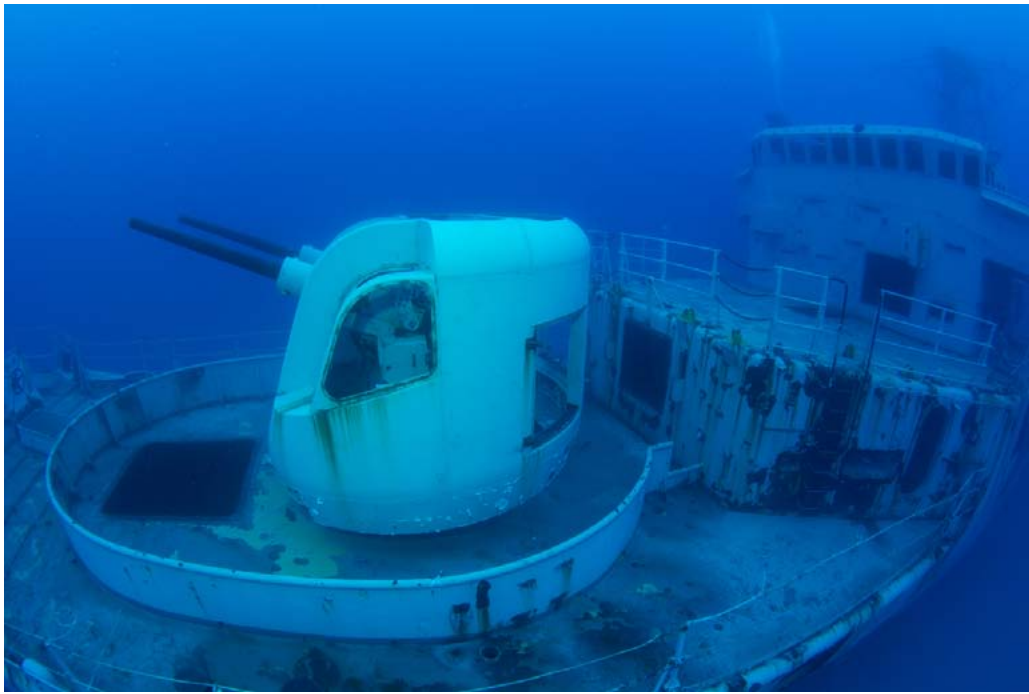
immediately see the corvette. This one is a little shallower, with the keel around 27 meters deep, and the higher part reaching the 16 meters, allowing more divers to enjoy this new wreck.

Being on the bottom for just 15 days, there wasn't much sea life yet, just a small school of little



Divers start to explore the MV Madeirense's with schools of fish around them. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic Strobes. ISO 400 1/80th f9

fish inside the bridge. But with clear blue water, it was a sight to enjoy. The group dispersed again, but I was able to get some pictures with just the wreck, as many went inside the well-prepared interior. Inside, as well as the others sunk in the Algarve, the ship was prepared so that a diver doesn't need



The bridge and 76 mm gun of the corvette General Pereira D'Eça. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic strobes. ISO 400 1/125th f11

The bow of the corvette General Pereira D'Eça. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic strobes. ISO 400 1/100th f10

to retreat the way he entered, he can always see at least one exit in every compartment as well as the one he's entered.

As I already know the inside of these types of ships, I took my time to try to make good use of the excellent visibility and to get general pictures of the wreck. I feel that much better can be done so I have to return... sun rays were lacking, as it was a cloudy day, unfortunately...

All the others were also enjoying the dive and this new artificial reef. As the ship was sunk with both its guns – two 76 mm on the bow, and two 40 mm amidships, you could see their joy, especially my youngest son's.

Once again, the computers told us it's time to go up, and we started to ascend... as I looked down during my safety stop, I was still able to see the Pereira D'Eça on the sandy bottom, and I tried to get some pictures of the





The bridge of the corvette General Pereira D'Eça. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic Strobes. ISO 400 1/100th f10

My youngest son "firing" the 76 mm guns of the corvette General Pereira D'Eça. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic strobes. ISO 400 1/100th f10

group and the ship under them. In Portugal, there aren't many places we have all these together.

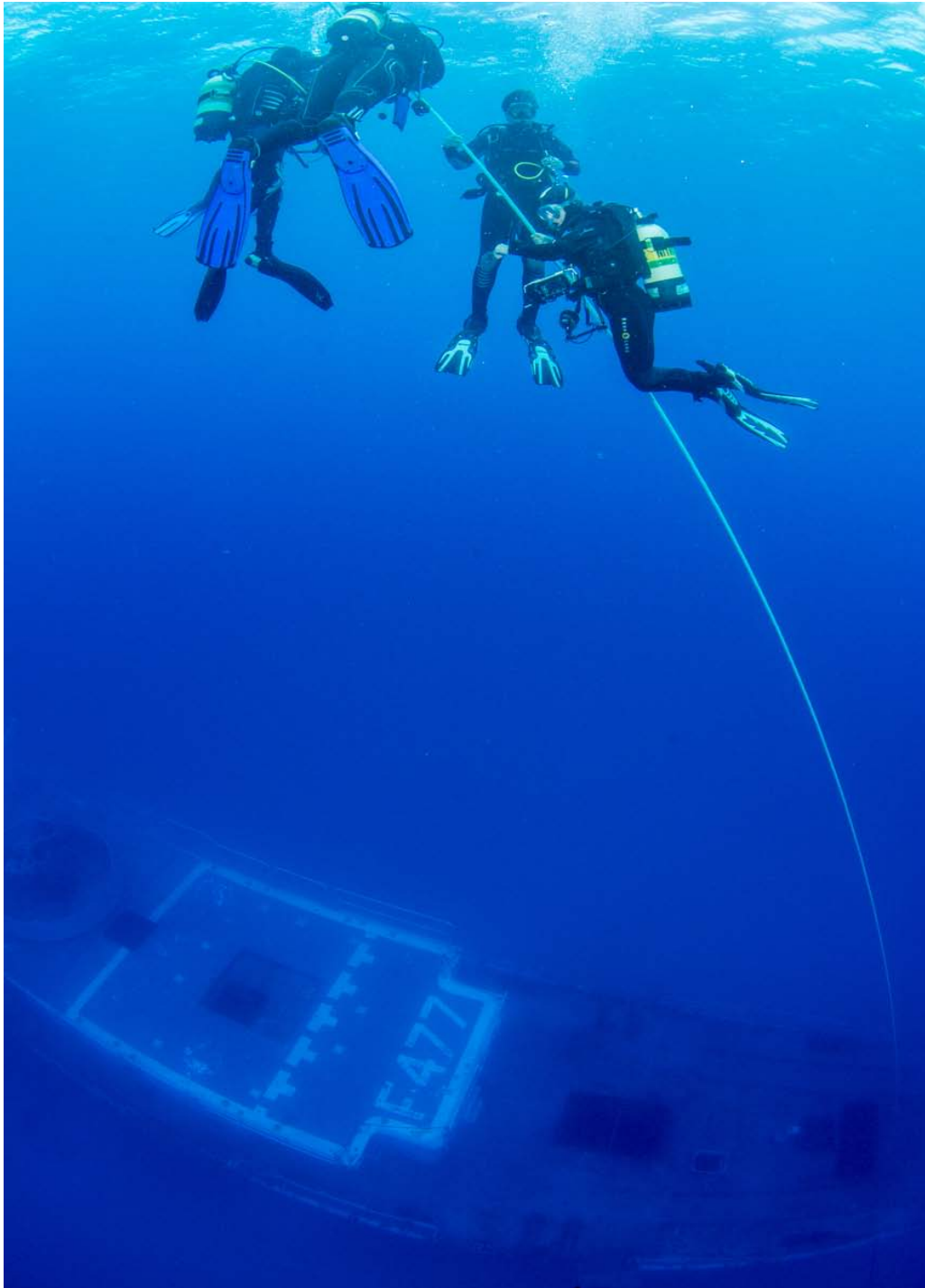
The lack of "local" residents is changing fast, as we see on the Internet. As days go by, there are more schools of fish gathering on the wreck, bringing the predators, including the big groupers that are so famous in Madeira's dives.

Back in port, we just had time to wash and put everything in the back

of our car and search for a place to eat the famous "prego no bolo do caco" (steak on a Madeira's special bread). Next stop is an ice cream on the island town centre (Lambecas) and it was time for our two and an half hours return voyage to Funchal.

As marine life starts populating the new wreck, a longer stay in Porto Santo, with more dives to explore this new underwater park is already on my wish list in the near future.





Divers on 3 m safety stop, with the corvette General Pereira D'Eça still visible. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, 2x Subtronic strobes. ISO 400 1/125th f11

Also, it will be a good opportunity to enjoy one of the new hotels that have opened since my and my wife's earlier visit.

For really enjoying the wrecks, I recommend a semi-dry suit or a 7 mm wetsuit, and the use of Nitrox. You'll feel more comfortable and stay longer bearing in mind the depths which both wrecks are. And you'll need more than one dive for each wreck, so a minimum of 3 days of diving is recommended.

But the island has other diving spots, including one with several iron guns and bullets, from an unknown wreck, or just material that was sent overboard in order for the ship to escape. One thing is for sure, the visibility is always fabulous... so, more days might be needed, after all...

When not diving with one of the two diving clubs that operate in the island, you can just relax (I just don't recommend the month of August, as it seems that half Madeira's residents move to Porto Santo for their summer vacations). The island also boasts a first-rate international golf course;

the rugged interior is a fine setting for energetic walks, and there's horse riding, game fishing and many other diversions to be found. There's an intriguing touch of history too, as Porto Santo's capital and only town, Vila Baleira was once home to Christopher Columbus.

A newly enlarged international airport serves the island, but most of the flights will pass through Madeira. Or you can use the ferry from Madeira, as we did, and you can dive even on the day you depart the island to Funchal.

There is a promise that, in a near future, the Madeira's diving community will have another artificial reef, again an ex Portuguese Navy corvette but, this time, in the Madeira's island south coast...

Augusto Salgado



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The MSY Seahorse and the Whalesharks of Kwatisore Bay

by Tony Myshlyayev

At the mouth of Cenderawasih bay, northeast of Indonesia's Papua island, lies the city and island of Biak. Here it must be noted that the title of "city" for Biak is used very generously as the size rivals small western towns that arriving guests are often accustomed to. This may be far from the whalesharks everyone comes to see but to spend an entire ten day liveaboard trip seeing the whalesharks is redundant regardless of how obsessed one can think they are. So trips that begin in Biak will often work their way their way to the inner bay of Cenderawasih bay where Kwatisore lies just northwest of Nabire.

Guests will be diving notable destinations like the Catalina bomber plane in Biak, Pulau Putus, Miosnum, Spag Point of the Tridacna Atoll, Pulau Matas, Pulau Nuburi and many others. Otherwise, trips that start in Nabire may begin with the whalesharks and end in Biak or move onwards via the Dampier Strait towards central Raja Ampat. En route passing some of the said areas above as well as other options that span the

western rim of the bay. This includes muck diving the beaches of Oransbari, wreck diving the giant tanker near Manokwari and piles of Japanese landing crafts off the shores of Pulau Amsterdam.

The wide angle lens will be highly recommended for most of the trip. Overall, the bay's reputation lies in its lush reefs, abundant with a great diversity of enormous and unfettered coral. According to a survey from 2011 published in Diving Indonesia's Bird's Head Seascape by Burt Jones and Maurine Shimlock with Dr. Mark Erdmann and Dr. Gerald Allen, there is a total of 469 varieties of hard coral in Cenderawasih bay.

As much as the Bird's Head Peninsula is known for its biodiversity, Cenderawasih Bay is a unique exception to the overall reputation. 14 million years of tectonic plate movements had sundered Cenderawasih from the rest of the Bird's Head Peninsula. The

*The feeding area. Subal w/ Nikon D700
16mm f/2.8D. ISO 400 - f/8 - 1/250th*



access of currents was heavily restricted and thus larvae and nutrients were unable to flow in. There were constant fluctuations in sea levels due to the movement of the plates that lie beneath the mouth of the great bay. These fluctuations in sea levels have been ongoing for the past 2 million years.

This exposed large expanses of reefs causing a mass deterioration in stabilized habitats but some marine life was able to adapt. Species that would only be found at greater depths are now accessible at recreational diving depths. While common reef fish that were able to assimilate began to possess colour variations or evolved into endemic species. To this day, the current flow into the bay is still restricted and the common reef fish have lived uncontested due to restricted larvae flow into the depths of the bay. Some of the endemic species are listed below:

Cirrhilabrus cenderwasih (Fairy wrasse)

Paracheilinus walton (Walton's flasher wrasse)

Hemiscyllium galei (Cenderwasih Bay walking shark)

Chromis unipa (Damsel fish)

Lepadichthys sp. (Cenderawasih clingfish)

Meiacanthus sp. (Cenderawasih fangblenny)

Calumia papuensis (Papuan gudgeon)

Calumia eilperini (Eilperin's gudgeon)

Chrysiptera pricei (Prices' demoiselle)

Pterocaesio monikae - (Monika's fusilier)

Pseudochromis sp. (Wandammen dottyback)

Pictichromis caitlinae (Caitlin's dotty back)

Lubbockichthys sp. (Cenderawasih dottyback)

Forcipiger sp. (Cenderawasih long-nosed butterflyfish)

In order to enter Cenderawasih bay, all guests must be cleared by respective authorities. This involves official documentation, passports and the



Jeffrey Neu with his hands full and work cut out for him. Subal w/ Nikon D700 16mm f/2.8D. ISO 400 - f/8 - 1/250th

like. All of which is handled by the liveaboard on the guests' behalf. However as the voyage begins, very quickly the little civilization that is left behind is taken over by jungle and local villages which give little heed to official documentation. Here the permits do not suffice and the matter is handled by council with the local elders. It is important for them to understand that a large boat arriving from beyond the horizon is not there to take their resources but rather come to observe the marine life

and move on. A concept that is entirely alien to a self sustained village.

Before, this was a very difficult process as the locals had no understanding of what scuba diving was all about and explaining the concept to people who prefer a primitive way of life was not easy. Though nowadays the sight of liveaboards have become slightly more familiar to them. Nonetheless it must still be handled in the traditional manner of sitting down for a drink and making the vessel's



Using the flash against the westering sun. Subal w/ Nikon D700 16mm f/2.8D & 2 INON Z240's. ISO 200 - f/9 - 1/200th

intentions very clear. Only then can divers proceed to explore the nearby reefs. Often, money is not the answer as one may think. With good graces from the villagers, the diving will proceed unhindered.

For most guests, the climactic portion of the voyage is the whalesharks of Kwatisore Bay. Kwatisore is a name derived from two words of a local dialect meaning “afternoon mist” because of the timely fog that rolls in on the nearby mountains. That is where

the whalesharks are summoned by fishermen on fishing platforms named bagans. To some, it may be viewed as a controversial practice. This should be left up to the reader to decide however to the whaleshark’s benefit, their survival is entwined with the livelihood of thousands in the region and thus they are protected and none dare to capture them for sale on any blackmarket unlike many other places. As well, transmitters may be visible on their dorsal fin as they are often the subject of research and their



Approaching Matas Island at sunset. Nikon D700 24-70m - f/2.8G. ISO 200 - f/5.6 - 1/200th

movements are carefully monitored.

In order to attract the whalesharks they must catch food for them. So the bagans begin fishing at night with the use of high powered lights and nets that span the area of the platform. The nets are lowered below the lights. At first this attracts the small plankton at the bottom of the food chain but slowly larger fish begin to arrive. Not unlike blackwater diving or squid fishing. Thus the fish are ensnared in the nets and by



Portrait of a Papuan in Nabire. Nikon D700 24-70mm f/2.8G. ISO 640 - f/3.2 - 1/250th

morning they are raised. At dawn the fish are chopped up into chum. Although this is not their natural food source, the whalesharks adore it insatiably. They follow the trail of the chum water to the nearest bagan. And if they arrive in the morning, it will often ensure their stay for many hours onwards. The amount of bagans in the bay can vary but roughly 10-15 are always present during the high season of June through September. Based on the weather, the bagans will move



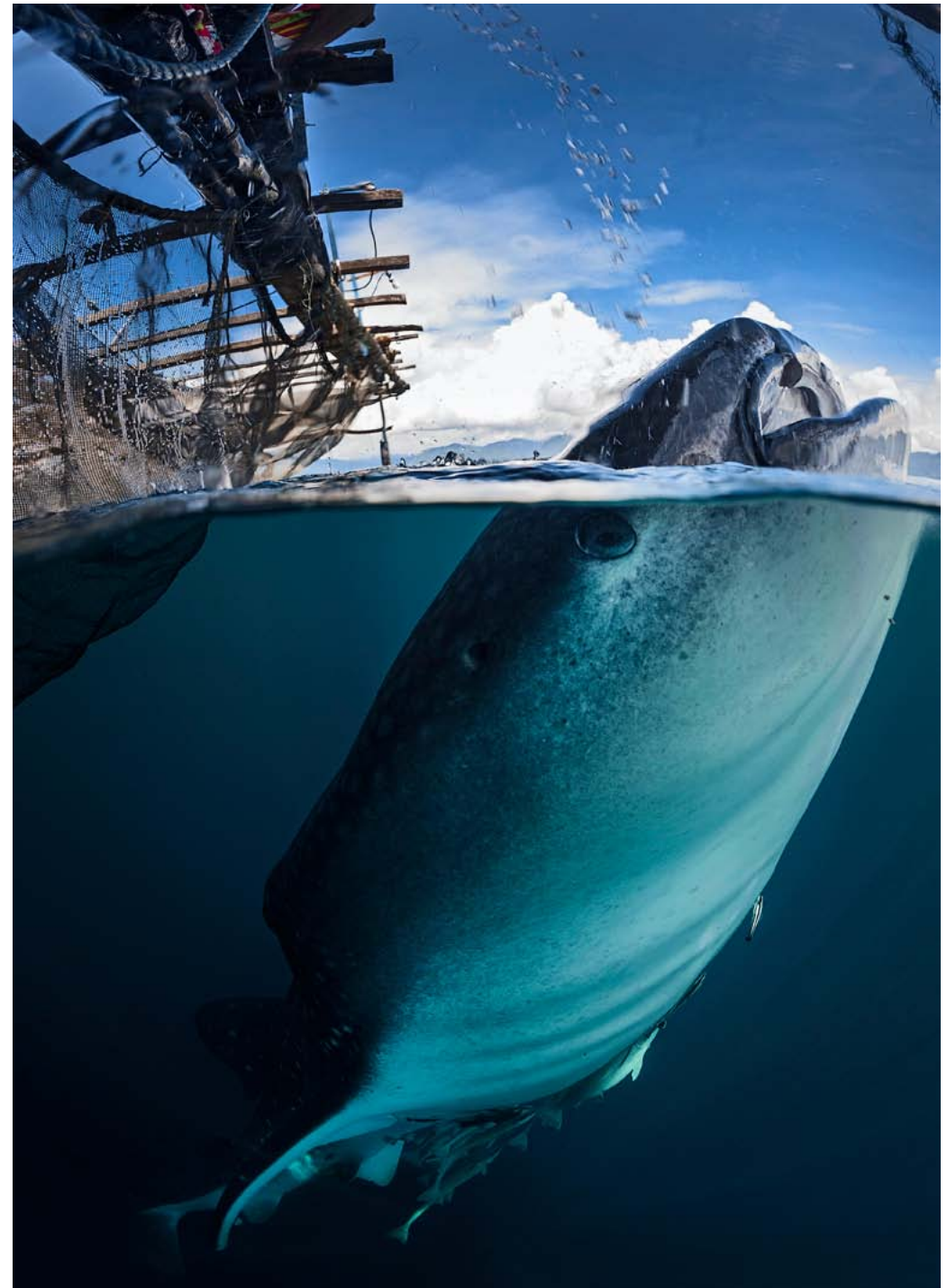
Boy on the bagan watching something interesting on TV to stay awake. Nikon D700 24-70mm f/2.8G. ISO 3200 - f/2.8 - 1/50th

Calm seas called for utilizing split level images. Subal w/ Nikon D700 16mm f/2.8D. ISO 400 - f/9 - 1/250th

to various areas to seek shelter from wind or stormy seas.

The liveboards will make their rounds to the nearest of the bagans and will decide which one they will dive based on the amount of whalesharks present. This of course is subject to change at any moment as no one can wholly control the will of the world's biggest fish though the pattern is that if a few arrive early on, often more are soon to follow. All the bagans have various owners which manage them out of Nabire which

makes the practice competitive as there are daily rates to host divers at their platform. One evening the guests and I of the MSY Seahorse visited our platform to observe the fishing practices and lives of the workers. Approximately 6-8 workers manage the operation and share one small enclosed room located at the centre of the platform. According to them, the cost of construction of a single high end platform is about 400,000,000 IDR which translates roughly to 33,000 USD. Although they vary in





Coral and Clownfish. Subal w/ Nikon D700 16mm f/2.8D & 2 INON Z240's. ISO 200 - f/13 - 1/320th

easier to manage. The platforms provide a unique appearance above when utilizing snell's window and for that, waiting for the whalesharks to begin their dive after feeding is often the best timing. However it is recommended that high noon is reserved for downwards compositions which can simply be accomplished with a snorkel and natural light. It is better to utilize the sun where otherwise the photographer would have to fight against it with strobes, often resulting in overexposed backgrounds. Weather permitting, the calm seas can allow for split level photography which is made all the easier because of the extended pose the whalesharks hold while feeding. Otherwise the standard downward angles are made more aesthetic by utilizing a portion of the surface in the image. Remember to use a quick shutter speed to fully freeze the water movement above.

Fisheyes and super wide angle lenses are a must to capture much of what Cenderawasih discloses. The macro lens should only be packed for this trip if baggage allowance permits. Not only is it going to sit in the bag for the whalesharks but also during much of the trip. Domestic flights to the region tend to have a check-in baggage allowance much less than photographers are used to although Garuda is quite lenient on carry on limitations (wink-wink).

Aboard the MSY Seahorse, there is no schedule for diving the platforms and at any given point one can go and dive as much as they want between the hours of 0700 to 1700. On our final day at Kwatisore Bay, we were graced with the presence of 9 whalesharks that constantly made rounds to

the bagans. This was a ratio greater than that of the divers present.

Once the trip begins, say farewell to a cellular signal until Biak, Nabire or Manokwari. Instead embrace the spectacular views of sunrises and sunsets over untouched mountains and rainforests. Breathe the crisp air and hear the melodies of exotic bird calls that echo over the passing waters.

Tony Myshlyaev



Tony Myshlyaev is a Canadian underwater photographer originally hailing from Thailand. Now an assistant cruise director and photo pro aboard the MSY Seahorse based in eastern Indonesia of the Papua region. More of his work can be seen at:

www.tonymyshlyaev.com
www.facebook.com/tonymuwphoto
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quality so this price could be much less elsewhere.

Photographers flock to shoot the whalesharks and are often rewarded with unique images as the opportunity to photograph them goes on for the whole day. The giants often stay shallow while they are fed by the fishermen yet after a few minutes in a vertical feeding position, they will duck down and descend to 15-30 meters making a circle around the bagan before reappearing several minutes later for another serving. Scuba gear is useful for flash photography which will make upward compositions

The Lembeh Squint

By Nigel Marsh & Helen Rose

After a week of diving Lembeh we started to develop something we called the 'Lembeh Squint'. This was from having to screw up our eyes time and time again, to stare at all the tiny critters that our guide kept finding us. How he spotted most of these minute creatures was a mystery, as many were only millimetres long and so well camouflaged that they blended in perfect with their habitat. Fortunately, he also found plenty of larger critters for our cameras, so the Lembeh Squint didn't turn into a permanent condition.

Lembeh, on the Indonesian island of Sulawesi, has been high on our list of places to visit for a very long time, but we never got around to organising a trip as it seemed that every Tom, Dick and Harry had been there. But with the opening of the new Cocotinos Lembeh Dive Resort, and an invitation to check out the new resort, we knew it was finally time to visit this legendary muck diving location. This invitation arrived at the perfect time as Nigel was also completing a book project, a guide to muck diving, and a visit to Lembeh would cap off this huge project. (This guide book, published by New Holland Publishers, will be available early 2017 in the UK, Australia and New Zealand).



A number of warty frogfish sit on the coral rubble at Bianca (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f11)



At night big-fin reef squid are seen at many dive sites at Lembeh (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f11).

We arrived in Lembeh in April, only to discover the resort was a few weeks behind schedule and that we were the only guests. Cocotinos operate wonderful boutique dive resorts at Manado and Lombok, with Lembeh their third resort in Indonesia. The new resort is located in the heart of Lembeh, on the mainland side in the village of Makawide. Most of the famous Lembeh dive sites are only five to ten minutes from the resort. Although work was still being done to finish off the pool and several of the rooms, we didn't find this a problem as our completed room was large,

very comfortable and air-conditioned. Plus the restaurant, bar and dive shop were already operational, so the only thing we missed was a dip in the pool.

The dive operation at Cocotinos is run by Odyssey Divers, and in typical Cocotinos style they have a great camera room, a good range of hire gear, washing and drying areas and a very spacious dive boat. Our guide for the week was Iwan Muhani, one of the most experienced dive guides at Lembeh. Iwan was taught to dive by the legendary Larry Smith in 1995 when the first dive resort opened in Lembeh. He knows every dive site



Finding imperial shrimps is not difficult at Lembeh as they ride many sea cucumbers and nudibranchs (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f13).

in the Lembeh Strait better than the back of his hand, and is a wealth of knowledge about every critter you are likely to see in the area, and also knows where to find them. If Iwan can't find them, they aren't there.

Arriving at the resort mid-morning, we had a choice of lunch or a dive, we naturally choose a dive. We quickly had our cameras and dive gear organised, jumped on the boat and straight into the muck. Our first dive was a great introduction to Lembeh diving at Tanjung Kubur, only a five minute boat ride from the resort on the

island side of the straight. This was also where the Lembeh Squint started.

Before arriving at Lembeh we were under the impression that it was all black sand muck diving. However, Lembeh has a great variety of muck environments and this is one of the reasons this area is so rich with critters. We explored sites with black sand, coral rubble, grey sand, pebbles and a mix of these. Tanjung Kubur was a typical mixed muck site; coral gardens in the shallows, a coral rubble bank and then a grey sand slope. Upon descending I immediately spied a



A rarely seen event, mating greater blue-ringed octopus (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f13).

species I needed for the muck book, a lovely Banggai cardinalfish. After snapping off a dozen images I suddenly realised there were swarms of these fish, and by the end of our week we had seen thousands.

Iwan then proceeded to point out critter after critter - seahorses, pipefish, nudibranchs, mantis shrimps, moray eels, gobies, cuttlefish and many tiny shrimps. Some of the smaller critters had us squinting, but the Lembeh Squint didn't start to manifest itself until the end of the dive, when Iwan

pointed out two tiny Pontoh's pygmy seahorses hidden amongst the hydroids.

Our next dive was on black sand, a classic Lembeh muck site at TK3. This sandy slope was a bonanza of wonderful species - cockatoo waspfish, burrowing snake eels, boxfish, cowfish, oriental sea robins, shrimpfish, hairy frogfish and a small flamboyant cuttlefish. But we needed to squint to study one tiny stick-like critter that Iwan pointed out. It was either a pygmy pipehorse or maybe just



The terrifying Bobbit worm, it's a good thing they are small (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f11).

a stick.

The afternoon dive was just as productive at Air Pang, another wonderful site with black sand. The highlights were a sawblade shrimp and a crocodile snake eel, but we also photographed a long-arm octopus, hairy frogfish, cockatoo waspfish and several demon ghouls. The squint factor was low on this dive as there was so many nice, regular sized macro critters.



This coconut octopus has made a home out of shells (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f11).

Unfortunately the squint went into full swing on day two as Iwan continued to find tiny, minuscule critters for our cameras. I had to remind Iwan that I was shooting with a 60mm lens and was not setup for super macro, and I really prefer my critters visible to the naked eye! This seemed to do the trick as diving at Aer Bajo 3 we saw Ambon scorpionfish, painted frogfish and a coconut octopus. But Iwan couldn't resist pointing out a minute nudibranch barely a millimetre long.

Over the following days we explored over twenty Lembeh dive

sites, and not just muck, as there is a surprising amount of coral in this area and also a shipwreck. It was nice to get the wide angle lens out to photograph the Mamali Wreck. This 90m long cargo ship was one of three ships sunk in the area during World War II, but is the only one regularly dived. Resting in 30m of water, we did a quick circuit of this interesting wreck and were impressed by the fish life, schools of barracuda, batfish, sweetlips and fusiliers.

But returning to the muck, the critters, small, smaller and super tiny, continued to be the main highlight.



A beautiful splendid mandarin fish at Bianca (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f11).

At Aw Shucks it was Pegasus sea moths, pygmy cuttlefish and fingered dragonets. While at Critter Hunt it was a wonderpus, tiger shrimp, blue-ringed octopus and hairy shrimp. And at Nudi Falls it was comets, banded pipefish, moray eels, whiskered pipefish and shrimpfish. No need to squint to see these great critters. Unfortunately the squint returned at several other dive sites as Iwan pointed out minuscule nudibranchs, porcelain crabs, shrimps and a few other critters we still haven't been able to identify.

One of our favourite sites was

a dive in the local harbour at a site called Bianca. This site had it all, groups of Banggai cardinalfish, mantis shrimps, moray eels, ribbon eels, pipefish, blennies, cockatoo flounders and cuttlefish. But the highlights were several painted and warty frogfish, plus a group of splendid mandarin fish. We are use to only seeing these colourful fish at dusk, when they emerge from the coral to mate, but at Bianca they dance among the coral rubble all day long feeding, and were untroubled by us photographing them.

We found that one of the great things about diving with Iwan as a

guide, was that he not only found critters with ease, but also had a great respect for them. There was no prodding or poking the critters into submission like some guides do for photographers. Iwan would show us the critter and expect us to take a few images and leave it in peace, which we were more than happy to do. Iwan also has a great knowledge about every critter we saw, and taught us a thing or two about some species.

Each day at Lembeh we witnessed behaviour we had only read about or seen in documentaries; a longfin snake eel with a commensal shrimp dancing on its head, a coconut octopus walking across the bottom with its shell home, we even saw a pair of greater blue-ringed octopus mating. Some of the best dives we did at Lembeh were at night. After dark a completely different set of critters emerge from the sand and rubble, including stargazers, big-fin reef squid, bobtail squid, fireworms, shrimps, prawns and a variety of octopus and crabs. But the most interesting critters were the Bobbit worms. These tubeworms have rabbit-trap like jaws, and Iwan told us about working with a documentary crew from the BBC that had filmed these scary worms grabbing large fish and dragging them into the sand!

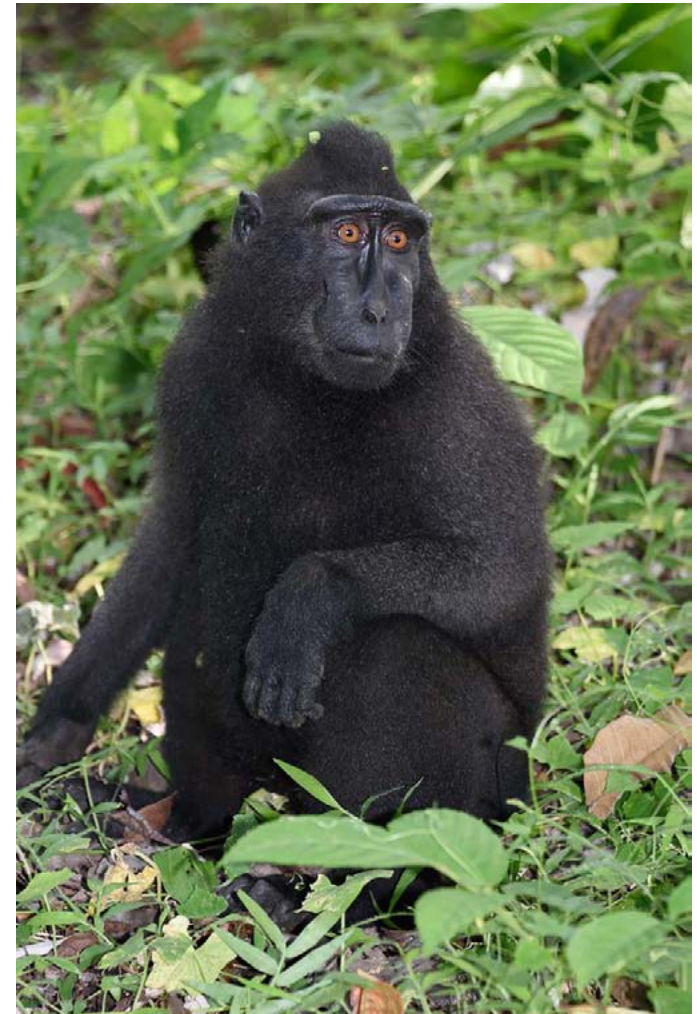
You can spend your entire time at Lembeh underwater, but this part of Sulawesi is worth exploring as you can do volcano tours, trekking and a highland tour. But we would recommend an afternoon trip to the Tangkoko National Park. We did this on our last day, to de-gas and let our eyes return to normal. Following a guide through the jungle we spotted numerous birds and insects, but the highlight was being surrounded by a troop of black crested macaques as they fed. We also saw two tarsiers, the world's smallest primates.



One of the signature species of Lembeh is the Banggai cardinalfish (Nikon D7200, Nikkor 60mm, Ikelite Housing, Inon Z240 strobe, ISO 200, 1/100, f13).

Our week at Lembeh allowed us to observe and photograph many amazing critters, but next time we might think about taking a magnifying glass, so we can see all the tiny critters without developing a Lembeh Squint.

For further information visit



A black crested macaque at the Tangkoko National Park (Nikon D7200, Nikkor 18-300mm, ISO 1000, 1/60, f5.6).

www.cocotinos-manado.com

Nigel Marsh & Helen Rose

www.nigelmarshphotography.com

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www.magic-filters.com

Yucatek Divers

by Phil Rudin

Yucatek Divers is a PADI 5 Star Gold Palm Resort and a 5 Star SDI/TDI Instructor Training Center offering Cenote and ocean diving.

They are located in the Mexican resort town of Playa Del Carmen about an hours drive south of the Cancun airport. At Yucatek the dive instructors also act as dive guides all having an expert knowledge of the Yucatan's many dive sites.

During my recent travels to Mexico I made several Cenote dives with them at a number of the most popular sites for open water certified divers. Mexico's Yucatan peninsula is one of the worlds premier dive destinations for cenote diving having the largest underground river system in the world. The cenotes are the biggest attraction for divers visiting the Yucatan while the island of Cozumel twelve miles by ferry from Playa Del Carmen is more popular with ocean divers.

Cenotes have been formed over thousands of years by rain water pouring through the porous limestone jungle bed on its way to the Caribbean Sea. In many areas large underground caves were formed by the river of rain water flowing through

the limestone. At times these caves were fully submerged and at other times they would sit above the water table allowing for the formation of stalagmites and stalagmites. Many of these large underground caves eventually re-flooded and when the ceiling above them collapsed cenotes and sinkholes were formed.

Cenotes can be found throughout the jungle and populated areas along the eastern coast of the Yucatan all the way into Belize. Yucatan's cenotes are truly magnificent jewels for both cave and cavern divers. Cave divers are trained and equipped to enter areas where no ambient light is present while cavern diving requires a clear source of ambient light so that you can always see the exit point for the dive. Both disciplines require

Yucatek Divers, Playa Del Carmen Mexico

Photographer, Nicté-Ha Cenote, Sony A7R II, Sony 16-35mm zoom at 16 mm, ISO-250, F/5.0, 1/250sec, Ikelite A7R II housing, Ikelite eight inch dome port, Ikelite DS-161 strobes in TTL with dome diffusers.





Aquatic plants at Nicté Ha Cenote, Sony A7R II, Sony 16-35 mm zoom at 16 mm, ISO-250, F/16, 1/250sec, Ikelite A7R II housing, Ikelite eight inch dome port, Ikelite DS-161 strobes in TTL with dome diffusers.

professional training and technical equipment which can be provided by Yucatek Divers.

Open water divers with no cavern certification should always have a professional guide no matter how simple the cavern dive may appear. Yucatek Divers offers a number of cavern locations where open water divers can take professionally guided tours and begin to appreciate the size and complexity of Yucatan's underwater cave systems.

Water temperature in the caves and caverns runs around 24c (75F)

and is comfortable with a 3 mm wetsuit. Cave divers making deeper penetration with longer bottom times will likely want to opt for a drysuit.

All divers regardless of skill level are required to use the rule of thirds. No more than one-third of your gas can be used entering the cavern with one third for the exit and one third for emergencies. When the first diver has expended one third of their gas everyone in the group is required to turn around and head for the exit.

All of the cenotes Yucatek Divers visit with non-certified cavern divers have



Dive Guide Marco Steiner, Ponderosa Cenote, Sony A7R II, Sony 16-35mm zoom at 16 mm, ISO-640, F/8, 1/30sec, Ikelite A7R II housing, Ikelite eight inch dome port, Ikelite DS-161 strobes in TTL with dome diffusers.

permanent lines installed to assist divers in finding the exit. Yucatek Dive Guides also deploy guidelines for the group to follow and groups are kept small so that no-one wanders off during the dive. None of the dives I made penetrated into cavern more than 50 meters and large ambient light sources were always within sight of all divers.

Cenotes with names like “Car Wash” and “Ponderosa” open into massive caverns with stunning light beams penetrating from the cracks in the jungle floor above. These cenotes

are an underwater photographers dream with huge stalactites and stalagmites lining the pathway through the cavern system.

The light entering these cenotes from above is captivating and surreal presenting a great number of wide angle photo challenges. Visibility is more than 50 meters in many of the cenotes and several would make excellent locations for U/W photography and model workshops.

In the Mayan language Nicté-Ha loosely translates to water Lily, Ha meaning water. Nicté-Ha was

also a Mayan Princess of mythology the essence of perfection. I spent an entire day at Nicté-Ha cenote without ever entering the cavern choosing to spend my time instead photographing the abundant verity of water plants and freshwater fish living in the one to three meter deep sinkhole outside the cavern entrance. The ambient light penetrating through the leafy water plants creates an explosion of color against the blue water of the sinkhole. Nicté-Ha is the only cenote where I used my macro lens to photograph some of the smaller fish. Nicté-HA is also a popular site for swimmers and snorkelers wanting cool off while enjoying the beauty of the quite springs.

Yucatek Divers arranges transportation, entrance fees and lunch for most daily outings which include two different cavern dives. Two tank cavern packages run around \$125.00US and multi-day packages can be arranged through the dive shop. Double tank cave dives with transportation and entrance fees run around \$150.00US. Complete rental equipment is also offered.

Yucatek also offers dive and hotel packages including lodging at Casa De Gopala a short walk from the dive center. Casa De Gopala is a small sixteen room hotel with large rooms and a roof top swimming pool that looks out over the city to the Caribbean Sea. Casa De Gopala is one of the truly charming jewels of the Old Playa area where I have stayed many times. Wonderful restaurants are found within a short walking distance and the true old world charm of Casa De Gopala plus Yucatek Divers are a perfect match.

They is also a full service training center with the only 4.5 meter (14ft) deep pool in the area and an on premises class room. PADI courses for all skill levels are available with instructors teaching

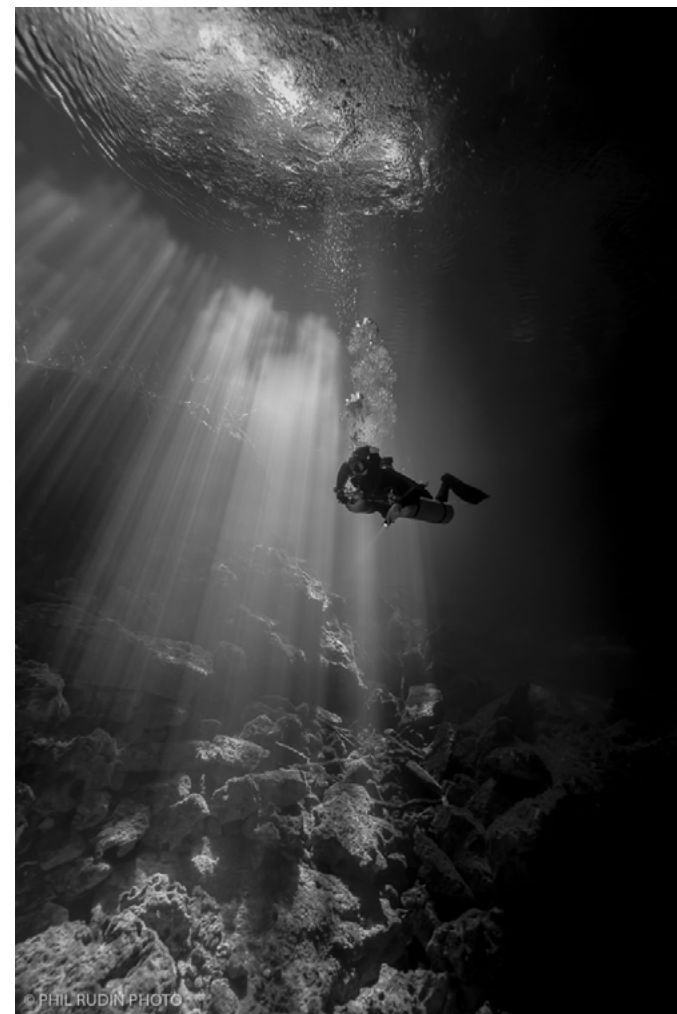


Mexican Tetra at Nicté Ha Cenote, Sony A7R II, Sony FE 90 mm Macro, ISO-125, F/8, 1/250sec, Ikelite A7R II housing, Ikelite Macro port, Ikelite DS-161 strobes in TTL with dome diffusers.

Ponderosa Cenote, Sony A7R II, Sony 16-35mm zoom at 16 mm, ISO-800, F/5.6, 1/30sec, Ikelite A7R II housing, Ikelite eight inch dome port, ambient light.

in English, German, French, Spanish, Dutch and Italian. Technical training is also offered for Cavern Diving, Full Cave Courses, Advanced Nitrox, Extended Range Technical, Trimix and more. Handicapped scuba diving courses are also offered along with Kids club courses in snorkeling.

Yucatek Divers also has an on site gear storage facility where I left my dive gear during my entire stay. Yucatek Dive Center is located in the heart of old Playa on Ave. 15 Norte between Calle 2 and 4 Centro, Phone +52 984 803 2836. Yucatek is open from 7:30 am to 5:00 PM. You may also want to consider a package which includes ocean diving in Playa Del Carmen or Cozumel. Yucatek also offers trips to Hotbox Island in northern Yucatan



during the June to September season to snorkel with Whalesharks.

Special thanks to Yucatek Instructor and Dive Guide Marco Steiner for his assistance during my stay. For additional information you can checkout their website.

www.yucatek-divers.com
Phil Rudin

www.uwpmag.com

Small ads



SOLD! – Ikelite housing for a Canon 5D MKII

Ikelite housing for a Canon 5D MKII, Ikelite 8" dome port (no scratches) for a Canon fish eye lens, Ikelite ports Canon 17-40mm and a macro 100mm IS lens. I am based in Scarborough, U.K. £1100 ovnorooaminrobin@hotmail.com

Your advert could be [here](#) instead for just £5.00



For sale – extrem'vision(up to 100 m!!) and video camera sony vx 2000

I'm selling a fantastic underwater housing extrem'vision(up to 100 m!!) and video camera sony vx 2000 in really good condition!!!coming with a pelican case!!!!The underwater housing is coming with :- 2 lenses (1 macro and 1 wide angle) - 1 red filter. - 2 set of o'rings - Sillicon for the o'rings. - Digital screen.The sony camera vx 2000 is coming with : - A set of batteries (2 large,i medium,1 small) - 5 new dv tapes. - 2 cleaning tapes.Extrem'vision is a French Brand known worldwide.it's strong,reliable and easyto repair if any problems....REALLY GOOD CONDITION!!!2000 euros!!!!!!fabien mouret

Email: maddox666@gmail.com [Ref:c147]



SOLD! – Subtronic Nova analog version no ttl converter

Subtronic Nova analog version no ttl converter

The strobe is 3 years old in good condition

All sockets in S6

800-€

Rudolf Sellböck

Ref C146

Your advert could be [here](#) instead for just £5.00



For sale – Aquatica housing 5D, 8 inch dome, dome shade and canon 5D body

Aquatica housing 5D, 8 inch dome, dome shade and canon 5D body including 2 spare batteries and spare charger for sale £1600 + p&p.Housing:Aquatica 5D housing - good to 90m, 8" optical acrylic dome port – some minor scratches but not visible in photos, 8" dome shade / guard, for wide angle lenses, Spare O ringCameraCanon 5D, 3 Batteries, 2 Chargers, StrapAll for £1600+ p&p, will accept paypal, or cashPlease feel free to ask any questionThe equipment has not been used for a while but I have just upgraded to a canon 5D mark II package so have this for sale.I am based in London and if you wish to come round and have a look/examine the equipment prior to parting with your money we can arrange that.

Email: martin.abela@hotmail.co.uk [Ref:c145]

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South West Ramblings 20

by Mark Webster

There has been a bit of a gap since the last ramble as the diving opportunities have been few and far between in recent months. This was mostly due to a long, wet and windy winter which produced only a handful of days when seas were calm enough to dive, but due to the preceding winds often the visibility was so poor it was just not worth the effort of submersion.

Finally, spring began to arrive but despite a mild winter there seems to have been a very slow start to the season and we did not really experience the expected heavy plankton bloom that normally arrives in May and June. This may be due to the fact that the water temperature remained relatively warm during the winter months and there so there was no sharp rise of 2-4 degrees which generally propagates the murky green waters.

I always look forward to the first spring dives as they herald the arrival of one of my favourite subjects, which are nudibranchs of course.

We have a patch of reef not far from Falmouth harbour which is sheltered from all but the worst weather. At high water you might

find 8-9m of water depth here and the reef wall stands up 4-5m with a deep undercut which attracts a healthy community sponges, hydroids, bryozoans and tunicates which are all good eating for nudibranchs.

There are always nudibranchs here in the spring but some years surpass others in the number and variety of species and we have seen some very unusual and rare specimens here.

For some unknown reason this year is not a stand out year and, whilst there are some common species, the reef has been dominated by countless candy striped flat worms (*Prostheceraeus vittatus*). They are so numerous that on some days we have found dozens cruising across the sand presumably in search of a fresh patch of reef with more to eat. They all seemed to be moving in the same general direction and following a similar route, so perhaps they are able to detect the path taken by the leading flat worm? I don't think I have ever seen these flat worms on sand in the UK before. Whilst they are nice subjects, and of course you have to capture a few images, they don't have the attraction of nudibranchs, at least



*Although candy striped flatworms (*Prostheceraeus vittatus*) are a common species it is unusual to see them off the reef and on open sand. This pair were amongst twenty or more that seemed to be following each other in the same direction perhaps looking for a new patch of reef to feed on. Nikon D7100, Subal ND7100, 10-17mm FE zoom and 2X teleconverter, Inon Z240 flash guns, ISO 320 f16 1/30.*

not for me.

So in seeking more variety I planned dives at Porthkerris on the Lizard and offshore on the Manacles reef which have both been good hunting grounds in previous seasons. Porthkerris has an excellent beach dive with a deep reef just a short swim from the shore.

On the seaward side of the reef the tide can be quite strong and, like the Manacle further offshore, this

nutrient rich water flow supports dense colonies of several different species of hydroids which of course is gourmet dining for sea slugs. So the number of nudibranchs and the selection of species on these two locations was much broader on both the inshore and offshore reefs which increased the imaging opportunities significantly.

As I have described in the past, many of the most colourful and



Diaphorodoris luteocincta and *Diaphorodoris alba* are also looking for mates in the spring time, although I have not seen them in pairs or groups very often. The shallow depth of field at high magnification means it is difficult to get two or more in full focus. Nikon D7100, Subal ND7100, 105mm micro, +10 wet lens, Inon Quad flash, ISO 100 f32 1/60.

interesting species are very small indeed so with a DSLR you will need a combination of a 105 macro lens and preferably a +10 wet lens or an equivalent combination if you are using another format.

One species which seems to be abundant this year is *Diaphorodoris luteocincta* and the closely related *Diaphorodoris alba*, which are extremely small at between 5-10mm in length and so are quite difficult spot to initially.

These critters are often buried in their food source so you may only

catch sight of part of the animal. I generally pick a patch of reef with a good coverage of hydroids and bryozoans and then look for white dots and investigate each one.

Once you have spotted one you may find that you are looking at the rear end, but be patient as these guys are quite active in their feeding and will soon turn around.

Use the time to get your focus, framing and flash position sorted whilst you watch through the viewfinder. There are two related species and they both look spectacular



Nudibranch Doto fragilis is easier to find if you look for the eggs first and then try to find one with the rhinophores exposed. Nikon D7100, Subal ND7100, 105mm micro, +10 wet lens, Inon Quad flash, ISO 100 f32 1/60.

in magnified by the viewfinder with a vivid yellow skirt and large spiral sculpted rhinophores.

Diaphorodoris alba is plain white with a yellow skirt whilst its cousin *Diaphorodoris luteocincta* has a contrasting deep red coloured stripe running down the centre of its body and also lines of short cerata.

Spend time, perhaps a whole dive, with your subject and wait for opportunities to capture your subject in various poses, particularly from a low angle if possible to separate

it from the background. These two species are often seen together but I have not seen them mating.

Another hard to spot species is *Doto fragilis* which seems to favour the more feathery hydroid (e.g. *Gymnangium montagui*) to feed and lay its eggs. In fact it is the egg clusters that you will most often see, but wherever you find them look closely at the base of the hydroid where this critter is most often hiding unless it is out feeding on the branch itself. Often this species likes to have its head



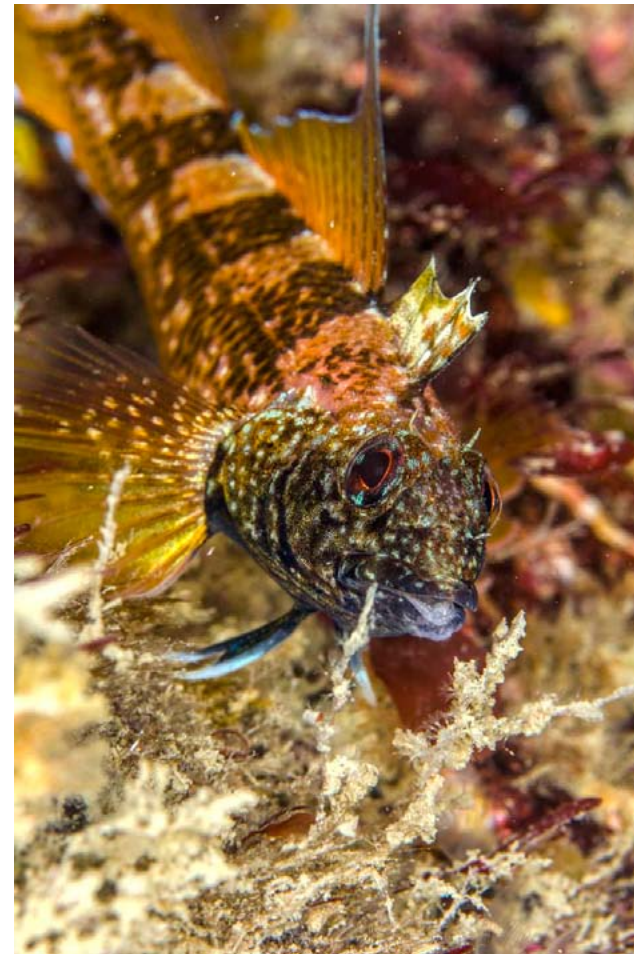
In your hunt for nudibranchs feeding on bryozoan sea mat on the kelp fronds you may see some of these little glass shrimp. They do like to move about and hover over the kelp, but every now and then they settle long enough for you to get a shot. There are many dynamic movement - you, the camera, the kelp and the subject, so be patient and try to shoot at the right moment. Nikon D7100, Subal ND7100, 105mm micro, +10 wet lens, Inon Quad flash, ISO 100 f32 1/60.

down towards the hold fast of the hydroid and shooting its rear end does not produce a very attractive image. Be patient and look for one that is facing the right way so that you can capture the head and rhinophores and hopefully the eggs in the frame.

Another good hunting ground for nudibranchs is the sea mat bryozoans that you find on kelp fronds. This is a favourite food for the attractive

yellow and white slugs Polycera quadrilineata and Limacia clavigera and the elevation of the kelp often helps to get a low angle on the subject and perhaps an open water background.

If you don't see nudibranchs on the kelp there may be other creatures to keep you engaged. I spent quite some time on one dive trying to capture a tiny glass shrimp which



Male black faced blennies are beginning to develop their breeding colours now and are always inquisitive and willing to strike a pose within their reef territory. Nikon D7100, Subal ND7100, 105mm micro, Inon Quad flash, ISO 100 f11 1/60.

of course. You will also see numerous fish species either courting, pairing off or nest building as well and they can often be more approachable at this time as they are focussed on the task in hand.

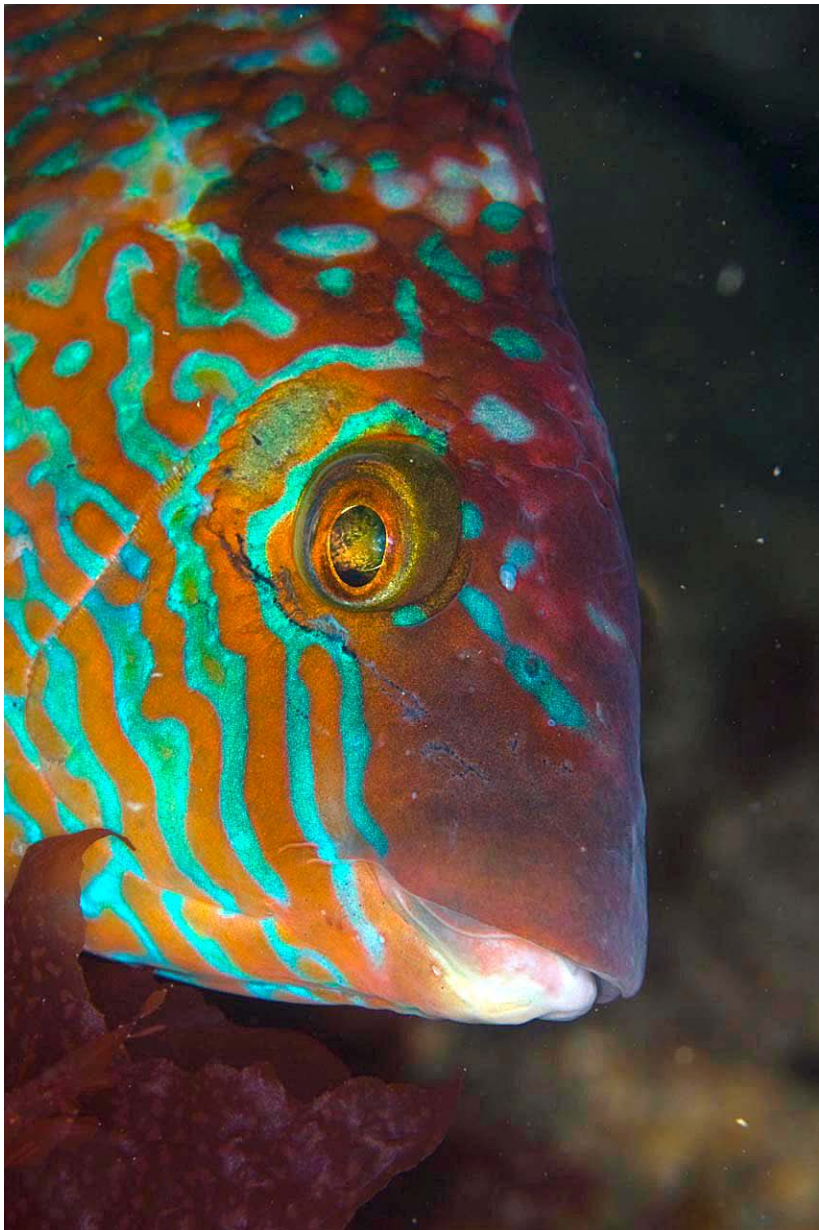
The male black faced blenny in his yellow breeding apparel is one of the more striking subjects and a perfect size for a 60mm macro or zoom

seemed to enjoy hopping around at the crucial moment, or if not then the kelp would move in the swell. This provides a frustrating challenge with a 105 macro and +10 wet lens, but don't give up as perhaps one in five or ten shots will be sharp eventually and of course the joy of digital is that we can carry pretty much until we get it right!

It is not only nudibranchs that come out in the spring time to breed

lens. I don't know what the life span of these fish is, but each year we will find a mated pair at exactly the same location on the reef and this applies to at least six locations at Porthkerris. So if they do not survive for several seasons then the next dominant male in the area must step in to claim a territory as soon as it is vacated.

Whatever the reason the great this is that you can rely on seeing



Corkwing wrasse are at their most approachable at this time of year as the male is distracted by building and defending his nest. Wait close to the nest site and the fish will often become relaxed and inquisitive. Nikon D7100, Subal ND7100, 105mm micro, Inon Quad flash, ISO 100 f18 1/100.



Male Tompot blennies are guarding their nest of eggs at this time of year and so you are more likely to find one out in the open in front of the nest. This is a good opportunity to capture a full portrait instead of the more usual head and shoulder shot. Nikon D7100, Subal ND7100, 10-17mm FE zoom and 2X teleconverter, Inon Z240 flash guns, ISO 320 f16 1/30.

a co-operative subject if nothing else turns up on the dive. Black face blennies, both males and females are one of the most patient subjects and will hold a pose for almost as long as you want as long as you don't

make any sudden movements.

Another approachable species at this time of the year is the male corkwing wrasse who will be busy nest building and foraging for suitable materials around the nest. Once you have spotted

where the nest is just wait patiently and the builder will soon return, perhaps wary at first, but the need to continue the job in hand means that you will soon be accepted if you watch calmly. Also look out for pairs of Tompot



This lobster pot was full to bursting with four lobsters and a very large female dog fish which had laid two egg sacks (mermaid's purses) inside. Nikon D7100, Subal ND7100, 10-17mm FE zoom and 2X teleconverter, Inon Z240 flash guns, ISO 320 f16 1/30.

The fisherman was going to be in for quite a surprise when he pulled the pot! I did not have the ideal lens on to capture all this but was able to record some detail shots as a reminder of this strange situation.

pot was in only 6-8m of water close to one of our favourite sheltered reefs and normally I would not pay a great deal of attention to a pot as I pass by, but this one looked unusually crowded at first glance. As

So even with a slow start to the year it is always a pleasure to get back into the water and seek out familiar subjects. Although the selection of exotic looking nudibranchs seems to be missing in our area so far this year seeking out the common species and capturing a good image is still an absorbing and satisfying past time.

I got closer I could see it was indeed full to bursting, not only with four lobsters of varying sizes, but also an extremely large dog fish. The dog fish was the size of a tope and absolutely crammed lengthwise into the pot and was obviously a female as much to my surprise there were two large egg sacks (mermaid's purses) carefully hung from the netting inside the pot. Quite why she would have struggled into the pot to lay them here I have no idea, but she seemed quite calm despite the lobsters crawling all over her and fighting amongst themselves.

Mark Webster
www.photec.co.uk



blennies getting amorous or the male on his own guarding the nest of eggs.

Crabs are also in the mating mood at this time of year and you will often find them paired off in the fissures of the reef with the male clutching tightly to the female. Off the reef on some sites there are dozens of pairs of hermit crabs with the male holding onto his partner and dragging her about the seabed when they feel threatened.

They obviously both must come out of there shells to procreate but I have yet to witness the act, but paired up they can make an attractive behavioural image for your portfolio.

We have also enjoyed our first dive of the year on the eel grass beds in the Helford river. Although I started my search on the outer edge of the eel grass towards the river centre in search of thornback rays, I eventually

gave up due to the non co-operation of the subjects I found and made my way into the eel grass. Here there was the usual plethora of sea hares, which I could not resist, a pair of large and co-operative decorator crabs and the largest spiny cockle I have ever seen.

One rather unusual find recently was a lobster pot with several inhabitants, some you would expect to see and others a total surprise. This

My Shot 1

During the months of May and June in the Philippines, humidity peaks as the wet season develops. The weather pattern tends to bring a conglomeration of ocean currents together with several upwellings heavily saturated with nutrients, essential in maintaining a healthy ecosystem but not a good ingredient for underwater photography.

Knowing how to shoot in such conditions eliminates some of the issues, but when coral spawning is added to the mix on a night dive, the game changes dramatically.

On this occasion, at one point the water column was so thick with organisms that it was impossible to get a target shot without a bunch of worms covering the subject and the camera. Frustrating as that may seem, I think it's all part of the diving experience, one that I have never grown tired of in over 45 years.

Given that night diving is not everyone's bag including my wife who prefers to retire after dark, dive sites are far less cluttered and in most cases my guide and I were the only ones around. That sort of environment allows for plenty of scope to manoeuvre and set up shots, given that animals stay put and are accessible. A very big ask indeed!

On this particular occasion, I had a great mix of critters during the dive, in fact far more than expected, so anything popping up after about an hour was a bonus.

On our way back to the surface we encountered many Bigfin Reef Squid, which performed perfectly for the camera until I was inundated with masses of worms and crustacea. Then as if cast out from the pack, the torchlight picked up these worms



*Marine Worms. Night Dive – Santander, Philippines
Nikon D800 – 60mm f2.8, 1/125, f22, ISO 100*

displaying what appeared to be a mating sequence.

For a very short time nothing else seemed to be attracted to the torchlight and I managed one shot only before the scene changed dramatically to attract what seemed to be everything in the ocean, making further pictures impossible and concluding our dive inevitable.

“My Shot” can be a particular favourite of yours or one which brings back particular memories and deserves to be appreciated by a wider audience.

Images need to be 150dpi, longest length (horizontal or vertical) 20cm saved as medium compression jpeg format. and sent with around 300 words of explanation together with camera details and settings.

E mail them and you could be in the next issue of UwP.

Attila Kaszo
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peter@uwpmag.com

My Shot 2

During the winter period near Paris there is almost no possibility to go for cave diving.

So what to do except drying out at home?

I have found the solution: diving in some submerged parts of old quarries used from the Roman period to the 60's for extracting stones for the constructions in Paris and suburbs. In some places the corridors of the quarries crossed the water table and so there were partially or fully submerged.

Not far from home, there is a place where the water has to go through gypsum layers before filling the galleries. Such water has a great ability to build rapidly stalactites on all kind of substrates what is beautiful but also cover the ground with a heavy layer of white silt ready to fly all over the water as soon as there is a movement. In such corridors the first divers exploring them in the 80's frequently hammered nails in the walls to hang a line.

This winter I had the opportunity to find an old nail from that time quite well preserved and also covered with a lot of quite impressive and long (about 50mm) crystals of calcite.

So I decided to take a picture of this nail trying to create the atmosphere of the gallery with snow white silt. For this challenge I was going for my 10.5mm Nikon fisheye on my Nikon D2X with 2

strobes in wide angle macro. The idea was either to lighten the nail and the crystals with a sharp lighting from 1 strobe and to lighten softly the white silt with the other strobe.

This is easy to say but there were some problems: the nail is in a wall covered with lines of crystals ready to be broken by my equipment and I need to come close to the nail without moving the silt.

After a trial without good pictures I succeed to arrive close to the nail by swimming without fins near the roof of the gallery and carefully going down along the wall from the top. I decided for a vertical shot with a first focused strobe right over the nail focusing on the crystals (strobe Nikon SB 910 in Patima housing) at 1/2 power and a second strobe (also Nikon SB 910 in Patima housing) with the internal diffuser on an arm toward the ground of the gallery and lightening the silt in the same direction as the lens at 1/2 power too. I took 2 pictures. On the first one the silt was not sufficient to create the cloudy aspect I had in mind but on the second one the silt was enough to give the result you can see here. I also took a third picture, but it was too late I was completely in a foggy corridor.

I am happy to share such an unconventional picture of cave diving photography trying to see something else than the usual explorers in action with impressive equipment unknown from common divers.

Nikon D2X in Aquatica housing. 400 ISO, 1/60, F22, Nikkor 10.5mm fisheye, 2 strobes Nikon SB910 in Patima housing 1/2 power, all in manual mode.



Jean Michel Machefert
www.jmfrog.com

www.uwpmag.com

Guidelines for contributors

The response to UwP has been nothing short of fantastic. We are looking for interesting, well illustrated articles about underwater photography. We are looking for work from existing names but would also like to discover some of the new talent out there and that could be you! UwP is the perfect publication for you to increase your profile in the underwater photography community.

The type of articles we're looking for fall into five main categories:

Uw photo techniques - Balanced light, composition, etc

Locations - Photo friendly dive sites, countries or liveaboards,

Subjects -, Anything from whale sharks to nudibranchs in full detail

Equipment reviews - Detailed appraisals of the latest equipment

Personalities - Interviews/features about leading underwater photographers

**If you have an idea for an article,
contact me first before putting pen to paper.
E mail peter@uwpmag.com**

How to submit articles

To keep UwP simple and financially viable, we can only accept submissions by e mail and they need to be done in the following way:

1. The text should be saved as a TEXT file and attached to the e mail

2. Images must be attached to the e mail and they need to be 150dpi

Size - Maximum length 20cm i.e. horizontal pictures would be 20 cm wide and verticals would be 20cm high.

File type - Save your image as a JPG file and set the compression to "Medium" quality. This should result in images no larger than about 120k which can be transmitted quickly. If we want larger sizes we will contact you.

3. Captions - **Each and every image MUST have full photographic details** including camera, housing, lens, lighting, film, aperture, shutter speed and exposure mode. These must also be copied and pasted into the body of the e mail.

Parting Shot 1

Like many of my underwater photographer buddies, I too love shooting gorgeous wide-angle scenes and meeting the challenge of balancing natural light with the artificial light introduced by my strobes.

Something I've never really given much time to as an alternative to powerful strobes on long arms while shooting wide-angle, is the use of filters. I've actually had a GreenWater Magic Filter for a number of years but can count on one hand the number of times I've actually taken it out of its little plastic sleeve.

On a recent boat dive hosted by this magazine's esteemed editor himself, I thought I would take the opportunity to quiz Peter's unsurpassed knowledge about how to get the best out of filter photography in the UK.

The first dive was a fairly straight-forward affair and precisely the conditions that the Magic-Filter works best in; 20m down with 8m or more vis the filter injected colour where the eye could

see none. All good so far and no surprises, the filter was doing exactly the job it was designed to do.

On the second dive of the day I decided to mix things up a bit and remove the filter, but still use natural light and make custom white-balance settings. The conditions underwater were very different; only 12m deep but with about 3m vis and plenty of sediment in the water but lots of ambient light. It would have been hard work to get any reasonably 'clean' images in these conditions if I was using strobes, but happily sticking with the 'natural light & CWB' combo I didn't have to worry about that.

Using my Olympus O-MD EM-1's rear screen to compose my shots & get instant feedback on my custom white-balance I noticed something quite unexpected. The camera could see further though the murky water more than I could! The parting-shot on this page demonstrates



Olympus OM-D EM-1, Panasonic 8mm fisheye, natural light, 1/50th, f/5.6, iso640

this effect perfectly; with my unaided eye I could not see the fish swimming between the upright pillars, and I certainly couldn't see the pillars at the rear of the structure either! Wow, this is the perfect tool for low-vis shooting! I even did a double-take when I realised this was happening and spent the rest of the dive marvelling at what I could see through my EVF.

Spurred on by these results I have since been shooting stills and video of a Spider Crab aggregation with natural light, CWB and the GWM too. The constant motion of the 5000+ crabs keeps the vis down to only

2m, but I was very pleased with the results and will now definitely consider natural light & filter photography as an alternative to struggling with strobes in the rich, but often less than crystal-clear, waters of the UK.

Parting Shot 2

I was nearing the end of an 80 minute dive around a shipping terminal at Negros in the Philippines.

This was an exploratory dive to enable the dive centre to expand its macro sites in more sheltered regions.

My normal procedure as I swim back to the boat is to start packing the strobe arms into a more accessible bundle for the deckhands to handle.

I had just clipped it all together when I noticed a Lizardfish with its mouth wide open. Then I saw the crab stuck in its mouth. Expecting the fish to take off I didn't rush to unpack the camera rig and the fish seemed to just freeze in place. A couple of shots later it was gone still chewing on its prey.

The moral of this story is to keep your camera rig intact until you reach the boat. I was lucky this time, but maybe not next...who knows?



*Grey-streak Lizardfish with freshly caught crab., Negros Island, Philippines
Nikon D800 – 60mm f2.8 – 1/125, f22, ISO 100. Nauticam D800 housing*

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**Do you have a shot which has a story within a story?
If so e mail it with up to 500 words of text and yours could be
the next Parting Shot.**

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