Underwater Photography

Sept/Oct 2017
Issue 98

The magazine that doesn't say anything here

"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

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.

wakatobi

www.wakatobi.com

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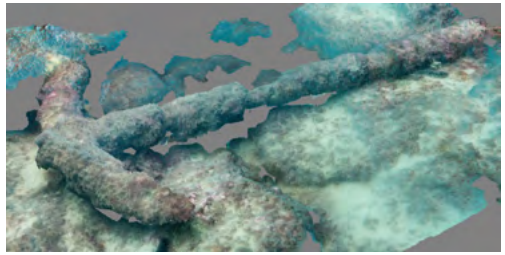

Cover shot by
Phil Rudin

Underwater Photography

A web magazine UwP98 Sept/Oct 2017

Underwater Photography *2001 - 2017*

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www.pr-productions.co.uk
peter@uwpmag.com

Editorial

Auto ISO

Auto ISO has been available in most stills cameras for some time but speaking as a mainly video shooter the advent of the Panasonic GH5 is one of the first cameras at its level/price range to offer stepless Auto ISO when shooting video and this offers a major advantage or control.

Auto ISO is probably the last in a line of automation which began in the SLR world just 40 years ago (younger readers can glaze over now if you wish) with, believe it or not, auto iris. Prior to that you had to view the scene with the aperture wide open and then rotate a ring to 'stop it down' to the taking aperture while you took the photo. This was then improved with the sprung loaded Auto Iris which was effectively the first form of photographic automation.

Shutter speeds were also manual and in steps of 'one stop'; 1/30th, 1/60th, 1/125th etc and the next improvement was a built in light meter. Then came the built in light meter which controlled the aperture but it was still in 'full 'stops'.

Nowadays we have fractions of a shutter speed and aperture so the photographic accuracy has just got better and better. Add in post production tweeks from Photoshop and, with video, Final Cut and After Effects, and we have amazing control.

So Auto ISO for video shooters is probably the last real improvement to tempt our wallets and it does bring real benefits in that you can peg the shutter speed (which is quite important when shooting video) and also the aperture for depth of focus and then let the Auto ISO keep the exposure consistent when panning from dark to light areas.

That just leaves us to point the camera at interesting subjects/happenings.

Hats off to Retra

Alex Mustard's thorough review of the new Retra Flash marks quite a milestone because it is the first new underwater strobe to come to the market for quite some time but I am going to have to digress already.

You see, in the world of underwater photography and indeed the photographic world as a whole, a strobe is not a strobe but a flashgun. It's called a flashgun because it... flashes. Strobes, on the other hand, have an effect named after them... stroboscopic because they emit multiple pulses of light in a timed sequence.

Now I fully realise that pointing this out will make no difference whatsoever because the language has been incorrectly infiltrated and a flashgun has become a strobe but I feel better for making my point.

Now where was I? Oh yes. The Retra Flash. I'd like to congratulate this comparatively small Slovenian company for not only calling it a 'Flash' but more importantly for having the courage of their convictions to develop a new product in an already mature marketplace. By the sounds of it they have come up with a great product which should keep the established big manufacturers on their toes and competition can only be a good thing for the consumer.

More importantly, even th ough they are underwater photographers themselves, they listened to a small but wisely chosen group of experienced underwater photographers to provide precisely what is needed in the field and I'd like to wish them every success in their venture.

Scientific research

Keith Hiscock's excellent Parting Shot brought it home to me what an uphill struggle it must be for marine scientists and the comparatively modern industry of 'wrasse potting' provides the perfect example.

In laymans terms, it goes like this. The Scottish Salmon Farming industry put out the call that they need, and will pay handsomely for, small cleaner wrasse which are not abundant enough in their area. It appears that these fish can clean the lice off farmed salmon and so solve what is to them an 'ecological' problem.

Now it turns out that the SW coast of the UK is a favoured area for these little lice lovers so a mini fishing industry has emerged in the past year or so catching and shipping them north of the border to be put to work up there. All these SW fishermen had to do was to buy specially designed pots for just £25 each or 10 for £250, and they were in the money. They already had the boats and the hauling gear so it's a steal of an initial investment.

The scientists, on the other hand, have the job of establishing just what effect removing these fish will have on the local marine environment and that could take years, if not decades; by which time there may have been an irreversible effect.

All the fishermen have to do is say is that it's not having any effect and carry on regardless but the scientific world must flag up the potential problem then try and raise the funding and then do the time consuming work to establish the true facts.

See what I mean?

Peter Rowlands
peter@uwpmag.com

News, Travel & Events

American Crocodiles at Banco Chinchorro, Mexico July 2018

Chinchorro Atoll (Banco Chinchorro Biosphere Reserve) is the best place in the world to get close to American crocodiles.

Located south of Cancun, Mexico and near the Belize border. The Banco Chinchorro Biosphere Reserve is the largest stand – alone reef in the Northern hemisphere and one of the healthiest.

Fewer than one thousand divers get to see these remote and unspoiled dive sites per year. It is home to the largest population of American crocodiles found in the Americas.

This July, photographer host Gregory Sweeney and 6 guests will travel on a unique adventure to see American Crocodiles and dive these beautiful and remote reefs.

This is a safe encounter with guides who have done years of experimentation and careful planning to make this safe. Our outfitter and guide in Xcalak was the first operator to organize croc encounters in Chinchorro and they remain the only dive operator with an official concession. They are committed to sustainable tourism and conservation.

On the Chinchorro Banks, we stay in utilitarian fishing shacks on stilts over the shallow waters: 36 nautical miles off shore and across from Xcalak, Mexico.

Each morning we dive to take in the pristine reefs and marine life while also hunting lionfish. There is a duo purpose in this; to help eliminate the invasive lionfish population and to get food to attract the crocs. In the afternoons we photograph the crocs in the 1.2m deep water around our huts. We are able to maintain a level of safety even when we are getting up close due a safety diver nearby with a pole to ward off any advances from excited crocodiles.

When in Xcalak we have a chance to enjoy some diving on excellent reefs in the shallows and some deep walls covered in healthy sponges and stands of black coral.

Sometimes manatees are spotted on these reefs and there are several wrecks and plenty of large and small fish species.

www.GregorySweeney.com

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If you're curious about cage diving with sharks, or have some family members who need convincing, download *Up Close with Great White Sharks*. You'll gain insights from award winning photographer Amos Nachoum – who has 30+ years experience cage diving with great white sharks.

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- Shark Cage Diving – What You Need to Know
- Where is the Best Place for Shark Cage Diving?

Get The Shark Facts

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www.biganimals.com

UW Photographer Gerald Nowak joins Fiji Siren

The Siren Fleet has always been a keen supporter of underwater photographers with each yacht designed to accommodate the growing needs of underwater photographer. Each has dedicated preparation areas, plenty of charge points, storage drawers, large rinse tanks, and a large plasma screen to view and share your photos.

Each year, we offer you a wide selection of escorted underwater photography workshops, hosted by well-known underwater photographers and videographers who provide you with the opportunity to develop and improve your photography skills in a variety of destinations.

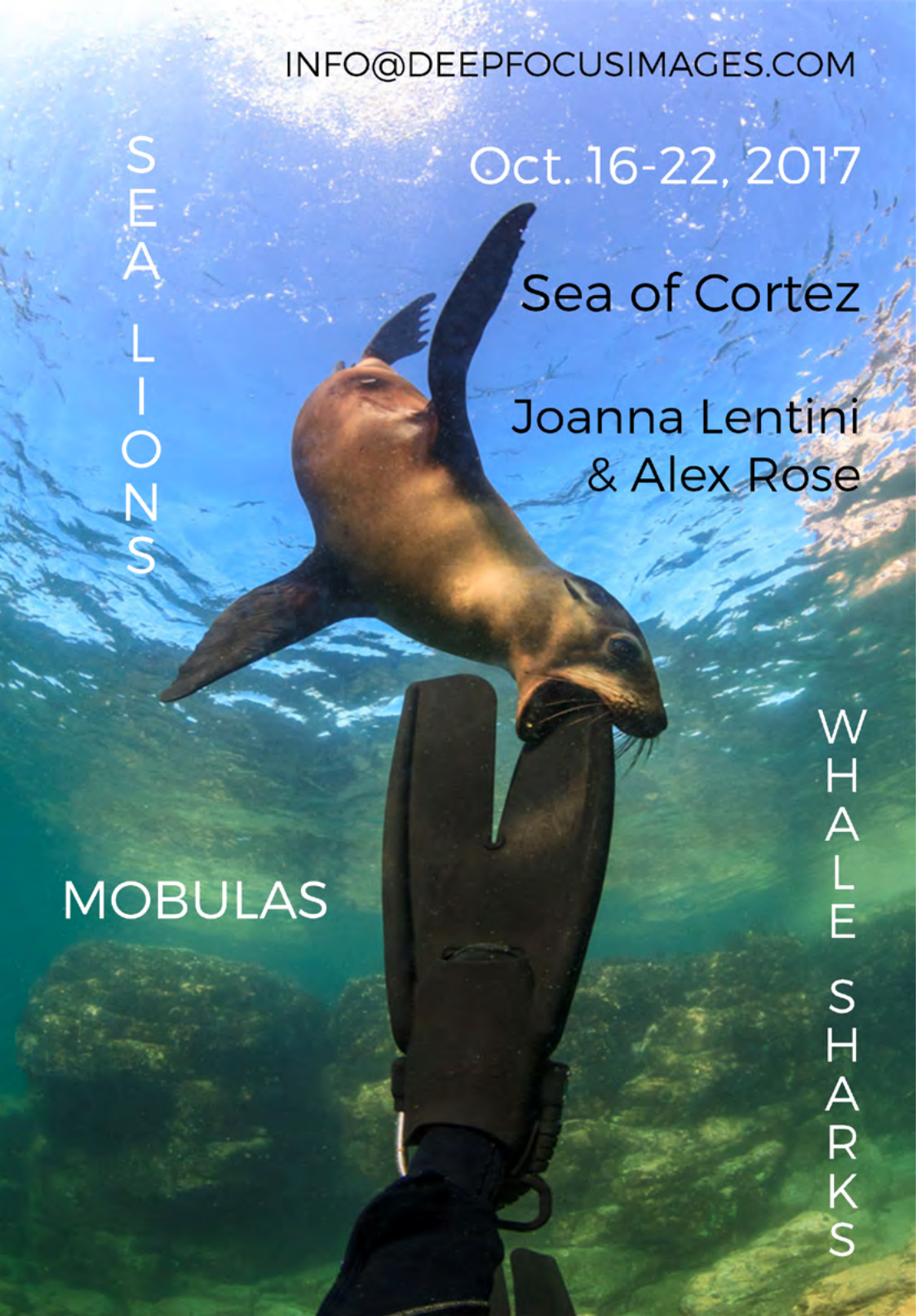
We are pleased to announce that Bavarian professional photographer Gerald Nowak will be joining the Fiji Siren from 17 to 27 November 2017.

On this Special Siren Trip, Gerald will be at your disposal to help you improve your underwater photography skills. He will be conveying tips and tricks to you based on his vast experience as a professional.

As Fiji is famous for being the "Soft Coral Capital" of the world, there will be a plethora of colours to play with. Macro lovers will also get their share to practice with; ghost pipefish, leaf fish, nudibranchs, etc. In Fiji, there is plenty for photographers of all specialities.

Gerald Nowak, a freelance journalist, has been working and diving around the globe for most German dive magazines and online portals, reporting on the underwater world.

https://sirenfleet.com/liveaboard-diving/photo-trips/



In-Water Photographer of the Year Competition

In-Water Photographer of the Year is photography based under and in the water. If you are snorkeling in the shallows, surfing your local reef, swimming in open water or your local pool, freediving the depths, out spearfishing for a sustainable supper. If you find you're in-water with just a camera in hand, no tank or other gear in the way, then you qualify to participate in the next In-Water Photographer of the Year.

This competition is for the new breed of photographers, an emerging populace, young and old to join in who own a waterproof camera and thats it. You enter the water with minimal of gear to capture the photos as you see fit.

Only one person can win the top prize of In-Water Photographer of the Year, that could be you! Do you have the photo or believe you can make the best photograph for In-Water Photographer of The Year?

We have 20 In-Water categories and we will have a winner for each, young and old, enter your photographs to be the best in your category.

Entries Open: September 30th - December 15th 2016

www.inwaterphotographeroftheyear.com

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ADAM HANLON

AQUATICA / SLS PHOTO Anilao Workshop

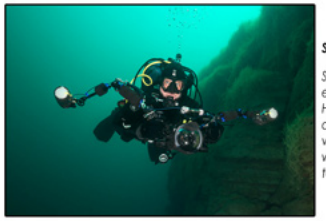
March 11th to 25th 2018 from U$ 3,650.00pp plus International Airfare

Join Aquatica Digital in partnership with SLS Photography for our 2nd Anilao Underwater Photo Workshop! We will be staying at the beautiful Dive Solana resort, eating some fine food and most of all, looking for and photographing in one of most target rich areas on the planet! Rivaling Lembeh Straits in the sheer diversity of critters, Anilao was named the Center of Marine Biodiversity (surpassing Australia's Great Barrier Reef) by the World Conservation Union. Dr. Terry Gosliner of the California Academy of Science labeled Anilao as one of the most bio-diverse locations on Earth. **BUT!** Anilao is not limited to macro, there are the fish filled pinnacles of Sombrero, Beatrice and Bahura, the beautiful coral filled walls, and rich shallow water reefs teeming with life and colour.

Join Team Aquatica shooters, Stewart Sy and Todd Mintz as they guide you personally on dives to help improve your underwater photographic skills. There will be daily lectures on techniques and tricks as well as post processing techniques to make your underwater images pop! In addition, prizes donated by Aquatica and SLS Photo will be awarded to workshop participants for Best Shot, Best Macro, Best Wide as well as runner up prizes.

Stewart L. Sy:

Stewart is the owner of SLS Photography and has been creating underwater images for over 20 years. Stewart is an expert hack at Photoshop and likes to make LARGE prints of his images.



Sylvain Marcotte:

Sylvain is one of the senior electronic geeks at Aquatica. He is actively involved in the design of the company's video and still housings and will be a treasure throve of technical info!

Todd Mintz:

Todd is an internatioanl award-winning underwater photographer and Arctic Explorer. Todd is a member of the Explorer's Club and Ocean Artists Society

Best of Show 2017 Sparring Soft Coral Crabs by Leslie Blickenstaff

This was the winning image on our first ever workshop. The combination of animal interaction and flowing lines made this the judge's choice!

© Leslie Blickenstaff

What's Included:

14 Nights, Twin Share, Air Conditioned Accommodations at Dive Solana Resort Anilao. 4 Meals, 3 Boat dives per day with (11 diving days), **additional dives and nitrox available at extra cost.**

Beach Front & Premium rooms and Non Diver rates are available as well. Flights are not included but we can help you arrange them with Philippine Airlines.

SLS Photography has over 15 years of experience taking eager divers and UW Photographers to this often underappreciated diving paradise. We have first hand experience with every location and partner only with dive operations who havee established a reputation of excellent service, comfortable accommodations, great food and most of all knowledge of the area.

We Look Forward to Showing the Wonders of the Philippines' Reefs to You Soon! Mabuhay!

AQUATICA Digital
www.aquatica.ca

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For more details or to book your spot:

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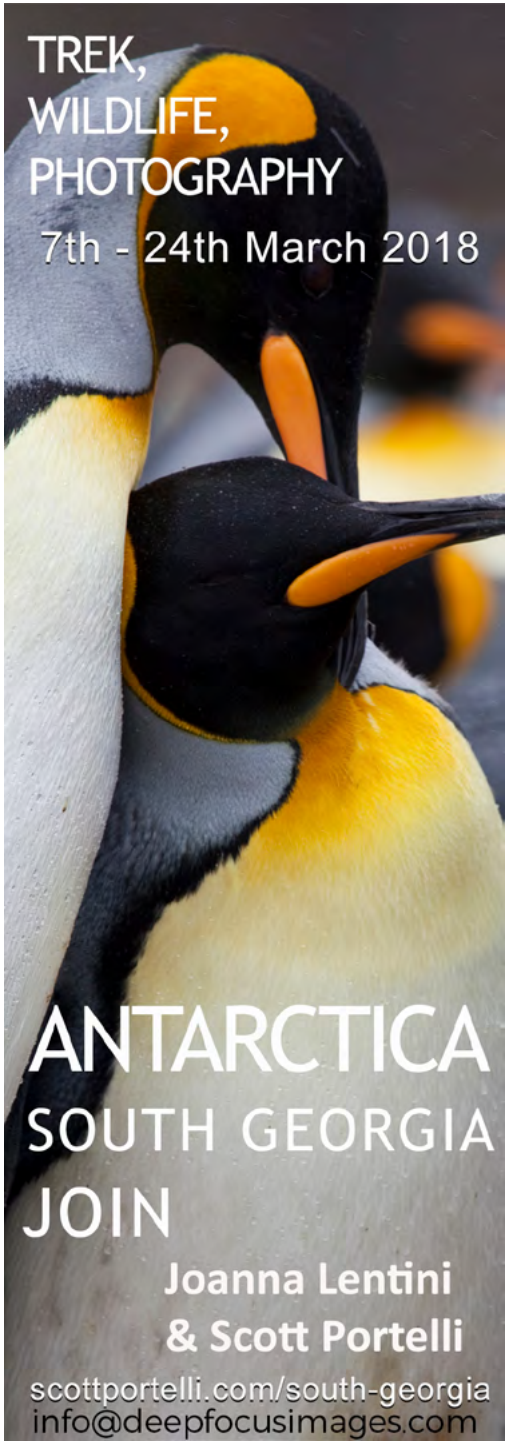

Basking Shark Research

Greetings from the Hebrides! We've only got a couple of weeks left of our season before we wrap up for 2017. We've had great basking shark sightings again this year, however it's been very challenging weather at times being based at the edge of the Atlantic!

There are still some spaces at the end of the Hebrides season next week, however we still have a lot of availability on our research expedition in September & October. See below for some of the research areas you can get involved with. The trips are either 3,4 or 7 days long, with the longer you spend the greater chances of better interactions.

www.baskingsharkscotland.co.uk

Wide Angle Uw Photography Boot Camp, Roatan

January 20-27th, 2018

Wide angle photography is one of the more difficult techniques to master underwater. Our simple approach demystifies what can be an intimidating skill to learn. Both in the classroom and underwater, our instructors teach how to combine proper camera, lighting, and post production techniques in order to produce consistently better wide angle shots.

In water instruction will consist of shooting specific setups alongside our experts. The instructors will assist each student individually underwater, helping them to shoot, review and adjust their shots.

Who should attend?

Beginner and intermediate underwater photographers that are looking to improve their wide angle UW photography skills. Do you struggle with strobe position? Balancing ambient light and flash exposure? Do you want to learn the post processing techniques to take your images from Blah to Ahhh? Then this is the course for you.

This course is limited to 10 students in order to maximize your one-on-one time with our instructors. Before you arrive, we'll have scouted out the best wide angle setups in advance. You'll start seeing results right away as you apply your newfound knowledge on some of Bonaire's most beautiful dive sites.

The best way to learn is by shooting and our photo pros will be in the water with you to help improve your technique and to correct mistakes. In addition to shooting techniques we'll be teaching you the best ways to edit your images. Learn how to maximize the potential in your wide angle shots using Lightroom and Photoshop.

www.backscatter.com/reviews/post/Wide-Angle-Underwater-Photography-Boot-Camp

ikelite

OLYMPUS
OM-D E-M1 MARK II

Don't let the size fool you... The smallest housing on the market also packs the most punch! Built-in TTL circuitry provides lightning fast strobe recycle time and extended camera battery life. A redesigned control set, ultra-durable new ABS-PC blend construction, and the versatile Dry Lock Micro (DLM) port system make this system ready for anything you want to throw at it.

Order now through any Authorized Ikelite Dealer. Find one at ikelite.com.

New Products

We at Backscatter all fondly remember the excitement (and trepidation) we felt as we purchased our first underwater camera system. This guide is diligently compiled each year to eliminate the hassle and headache often associated with shopping for underwater camera gear. Whether you are just getting started with underwater photography, an intermediate shooter looking to upgrade his/her system, or an advanced image-maker looking to assemble a more compact rig for travel to combat those ever-rising baggage fees, this Best Underwater Compact Cameras article is for you!

We've searched and tested dozens of compact cameras over the years to find the best match between portability, price, and the goals of

aspiring and experienced underwater shooters. From our own waters of Monterey, to the Caribbean, and the Coral Triangle, we've spent hundreds of hours shooting compact cameras underwater. These top performers will enable you to capture stunning images underwater.

As the field of compact cameras is changing extremely rapidly, we will update this article on a continuous basis. Last updated July 2017.

www.backscatter.com/reviews/post/Backscatter-Best-Underwater-Compact-Cameras

Nauticam NA-A9 housing for the Sony A9

A professional housing befitting of a flagship camera, the NA-A9 underwater housing provides fingertip access to all key camera controls in a rugged and reliable aluminum underwater housing. Ergonomic camera control access is one of the defining strengths of a Nauticam housing, and the NA-A9 continues this tradition.

The NA-A9 housing inherits the core design elements from the Nauticam pro DSLR range, and bundles them in a more compact package.

Opening the housing for quick battery and media changes is fast and easy with the locking housing latches. The system is a seamless extension of the camera.

Sharing the same lens port accessories as the Nauticam NA-A7II housing, a list of thirteen Sony FE mount lenses are currently supported. An adaptor allows the entire N120 DSLR lens lineup to be used as well, supporting the popular Canon EF lenses attached to the A9 with an EF to Sony E mount lens adapter. Also available is an adaptor to attach the water contact UW-Nikkor series lenses originally used on the Nikonos underwater range finder systems. From ultra wide fisheye lenses to long macros, the Nauticam A9 system has all focal lengths covered.

www.nauticam.com

Nauticam
innovation underwater

Nauticam produces the finest Build Quality and widest range of rugged underwater camera housings and related accessories.

Radiant 3000F Video Light

The Radiant 3000F Video Light is a durable and powerful video light, designed to significantly enhance color and light in underwater videos and still images.

Featuring an ergonomic design and a built-in YS connector, the Radiant 3000F Video Light can be comfortably integrated into any underwater photo system.

The Radiant 3000F offers a variety of operation modes, which make the light suitable to light a wide range of classic and creative compositions. Operation modes include flood light (100 degrees), spot light (15 degrees), red light, Ultra Violet (UV) & Blue light and two flashing modes (constant and SOS) that can serve for signaling / SOS purposes.

www.fantasea.com

Subal Q V3 for Leica Q

Our housing provides access to all the functions of the Leica Q. The ergonomic SUBAL housing design and arrangement of all the key controls allows easy camera operation without letting go of the grip. The camera is fitted on a special cradle which enables a precise and faster, more secure mounting.

Threaded holes at the base allow the attachment of a tray. Focusing lights can be attached or mounted to the top shoe. The monitor window provides a glare-free and high-contrast view of the camera monitor. Material selection, processing, surface protection and finish conform to the usual high-quality that is common to all SUBAL products.

www.subal.com

REEF
PHOTO & VIDEO

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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PRODUCTS

APSO-A6500 ＋ SONY α6500

http://www.acquapazza.jp/en/

Ikelite 200DLM/A housing for Canon EOS M6

This powerful compact housing packs in all of our latest upgrades to controls and ergonomics. The shutter lever has been updated to a more sensitive and natural feeling curved design. The standard control hugs the side of the housing for comfortable use when hand holding. It can be easily extended using the optional Shutter Trigger Extension # 4077.93 to put it within easy reach when using a right-hand quick release handle.

The (*) button is accessed by a lever placed right where your thumb is for quick access to this customizable push button. This control may also be extended using the Shutter Trigger Extension # 4077.93. Less often accessed controls are located in the same configuration as on the camera to replicate the muscle memory and familiarity you've developed with your camera on the surface.

Our push buttons have been redesigned to reduce weight and salt build-up. The video record start/stop button is bright red anodized so that you never miss the action. The back of the housing features laser engraved control symbols which will never fade or fall off.

The camera mount is front-loading for easy installation and removal. A small mounting plate attaches to the bottom of the camera and secures in the front of the housing. The camera mounting plate does not need to be removed from the camera for surface use or when changing the battery or memory cards. The mounting plate features a 1/4-20 threaded mount on the bottom so that it can be attached to a tripod on the surface.

www.ikelite.com

Dive Rite HP50

Dive Rite's all new HP50 raises the bar for technical lighting systems. Completely adaptable to any dive mission, the HP50 easily transforms from a compact, lightweight travel companion to a rugged workhorse capable of boundary pushing, multi-hour technical dives.

At its heart, a next generation multi-die Cree XLamp XHP50.2 LED provides unparalleled output, efficiency, and reliability. A unique light head design offers improved heat sinking and features a cross drilled water channel that provides a direct thermal path from the back side of the LED chip to the water for maximum output and efficiency. A magnetic rotary switch controls 4 modes of operation: High, Medium, Low, and Strobe.

www.diverite.com

REEF PHOTO & VIDEO

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

Think beyond what has been done before, work with the most demanding photographers on the planet, deliver beyond expectations, and never rest on past accomplishments.

thought at your fingertips
www.nauticam.com

Sony RX0 1-inch sensor in a rugged and ultra-compact body

At its IFA 2017 press event, Sony launched the RX0: a shock and waterproof camera with very compact dimensions that uses a Sony 1” sensor to capture still images and video.

Although the RX0 looks very much like an action cam and comes with similar dimensions, Sony is not marketing it as such. The camera is rather aimed at video professionals and enthusiasts who want to shoot high-quality footage in challenging conditions and possibly use multiple cameras at the same time.

Several RX0 cameras can be connected to capture photos, video and slow-motion footage from different angles. With Sony’s FA-WRC1M remote up to 15 cameras can be triggered at the same time and up to 5 cameras can be connected wirelessly via a Sony mobile app. A wired solution is expected to launch in early 2018.

Image data is captured on a multi-layer Exmor RS CMOS sensor with a 15.3 MP resolution. It is coupled with a Zeiss Tessar T* 24 mm equivalent F4 wide angle lens. Stills can be captured in RAW format at shutter speeds of up to 1/32,000 sec and at up to 16 frames per second.

In video mode, super-slow-motion footage can be captured at speeds of up to 1,000 frames per second, and a Clean 4K HDMI port allows for use of an external recorder. Focus peaking and an MF-assistant offer precise pre-focusing and image profile options, and S-Log2 expands the creative possibilities. Time stamps and codes help in editing when working with multiple cameras simultaneously.

The RX0 weighs only 110 grams and with dimensions of just 59x40.5x29.8mm, it can be placed in even the smallest of gaps. It’s shock proof and waterproof down to 10 meters, or 100 meters with an optional underwater case.

In Europe the RX0 will be available from October for 850 Euros (approximately $1010). No information on US availability and pricing has been provided yet.

www.sony.co.uk

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Nauticam NA-XT2 for Fujifilm X-T2

The NA-XT2 inherits the best of previous DSLR and high-end mirrorless Nauticam housings, while tackling the manual aperture control needed for this particular camera.

The housing is small, but not at the expense of functionality or ergonomics. Integrated handles provide a sturdy and comfortable base to operate the system from. An ergonomic shutter release lever and well placed control dials provide excellent tactile feel. Important push buttons are placed within easy reach of the handles. Camera controls have sufficient spacing to allow easy operation, even with gloves.

A new accessory battery pack has been released along with the NA-XT2! This larger capacity battery greatly extends the time between battery swaps, and allows the housing to remain sealed between dives. The battery pack, conveniently slides into the underwater housing below the camera mounting plate.

The Fujinon XF10-24mm F4 R OIS wide angle zoom lens, and the Zeiss Touit 2.8/50M macro lens are both supported. With Fuji's high end lenses (called the "XF" line) and the Zeiss 50mm macro, aperture is controlled on via a lens ring rather than electronically through the camera. This old school approach will resonate with anyone who, for example, shot older Nikon SLR's before the days of electronic aperture. Use Nauticam aperture ring (#36422), for the Zeiss 50mm macro, and (#36421) aperture, (#36441) zoom gears for the 10-24mm.

www.nauticam.com

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GoPro 5

BACKSCATTER
WWW.FLIPFILTERS.COM

Ikelite DLM 6 inch Dome Port with Zoom

An extended dome port providing zoom function for most mirrorless interchangeable zoom lenses when used with the appropriate zoom sleeve.

An optical-grade acrylic 6-inch diameter dome allows you to fully take advantage of the angle of view of your lens. Acrylic produces virtually identical image quality to glass yet is much lighter weight and easier to pack.

Our unique zoom sleeves are simple and affordable. Zoom sleeves are particular to the lens for proper operation. Refer to the appropriate port for your housing to determine compatibility.

A dome shade is in process for this item. It is expected to become available in late 2017.

www.ikelite.com

i-Turtle

Our range of Turtle controllers consist of i-Turtle and XS for Nikon systems and e-Turtle for Canon systems and s-Turtle for Sony MILC systems.

The world's smallest TTL controller for Canon and Nikon cameras. 41 mm long, 29 mm wide and 14 mm high.

TRTTL is juiced up to handle 2,000 images on a single charge. And it arrives bundled with a charger that allows a full recharge within 1 hour.

Should you choose cable or synchronous optical LED connections – Turtle has the connector interface to handle both options. On the rear of Turtle is a connector interface for both cable and synchronous optical LED connections.

www.trt-electronics.com

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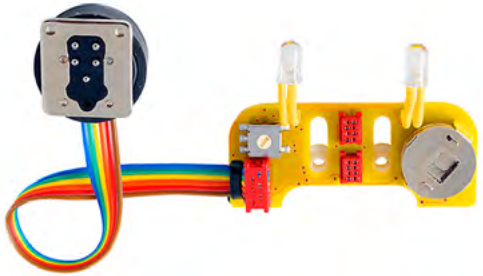
Leak Insure Extra Value

Leak Insure have launched 2 New Extra Value product configurations, both the Slim and Shorty absorbent sachets for underwater camera housings. Both products are now available in value packs of 10 sachets for just £7.99 a saving of over £2 compared to buying 2 x 5 sachet packs.

Leak Insure absorbent sachets were initially designed to absorb leaks in underwater camera housings but they also have a major benefit of removing moisture from the air trapped inside your housing. The fast acting absorbent granules can reduce fogging in seconds far quicker and more effective than other desiccants.

www.leakinsure.com

UW Technics TTL converter for Canon



UW Technics are shipping their Internal TTL-Converter (for Canon) designed for use with Nauticam housings.

This circuit can be retro fitted to Nauticam NA-5Dm4, NA-7Dm2, NA-5DsR, NA-1DX housings and gives full TTL (eTTL) flash control with Inon Z-240, Sea&Sea YS-250, YS-D1 and YS-D2 along with Ikelite DS-161 and DS-160. It supports both electrical and optical triggering.

The TTL Converter for Canon DSLR cameras for Nauticam underwater housings is available now, priced at $450

www.uwtechnics.com

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Specifications:

- Dimensions: 10.5” x 6.0” x 1.0”
- Weight: 310 gr
- Materials: Plastic, Rubber, Stainless Steel Hardware

www.oceanleisurecameras.com

INON UW Variable Red Filter M67

The INON UW Variable Red Filter M67 is a variable color correction filter to suppress blue cast when photographing/filming without light source.

The combination of two polarizing filters reduces blue and green wave length to suppress blue cast underwater.

Turning front polarizing filter provides wide and seamless adjustment from least to maximum effect where almost all blue and green wavelengths are cut. You can adjust the filter strength depending on depth or water condition like setting minimum effect near the bright surface while using stronger filter setting at depth with insufficient orange or yellow wavelength.

www.inon.co.jp

ACQUAPAZZA
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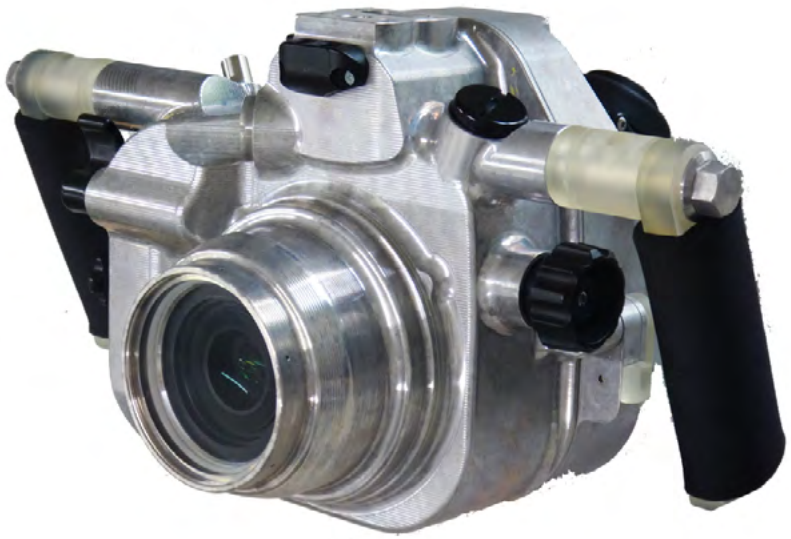
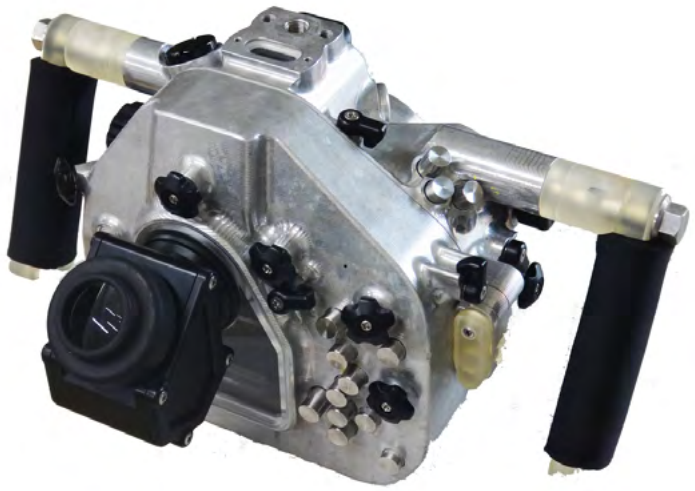
APSG-sdQ + SIGMA sdQuattro

http://www.acquapazza.jp/en/

Acquapazza's Panasonic GH5 housing





The design and development of Acquapazza's Panasonic GH5 housing is progressing well.

One distinctive feature will be the ability to angle both the left and right handles independently to either upright, level or at a 45° angle.

Because 4/3rd lenses are smaller, so too can be the ports and extension rings and a 100mm diameter dome will accommodate the compact fisheye lenses.

The housing is protected with double O ring seals on the main closure and also all rotating and push button controls.

The polished push button controls are 10mm in diameter for ease of operation.

The controls are all engraved for easy identification.

You have a choice of internal strobes - the Panasonic DMW-FL70 or LSS2. The former provides TTL photography.

When carrying out multi-shooting, or when you do not want to use TTL, you use LSS2.

You can turn the DMW-FL70 on and off outside the housing.

For viewfinders you can choose from three kinds, the "45-degree viewfinder" from INON, a "straight viewfinder", and a "finder window." (Nothing is attached at the time of housing purchase)

Opening and closing the housing can only be done after releasing a safety latch.

There are three tripod sockets in the base so you can use any commercially available tripod.

As with all housings which are under development, the final design is subject to change.

www.acquapazza.jp/en

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The Aquatica AGH5 housing is built with high quality materials and craftsmanship. Building up on the initial Aquatica GH4, the GH5 version has improved ergonomics, a versatile port system, a rugged yet compact design.

Another great improvement over our previous housing is new self-aligning controls. With the AGH5 housing you do not need to align the controls on your camera before closing it. The On-Off and the Focus mode levers are spring loaded and designed to ''find their own way'' once the housing is closed.

Retail: $1,799.00 USD includes Housing, built in leak sensor, handles, your choice of flash connections, LED trigger (with OPT version), eyepiece and much more!

www.aquatica.ca

Inon Dome Port Cover S

INON INC. is pleased to announce official release of Dome Port Cover S made of neoprene for various INON dome lenses/ports on August 21st, 2017.

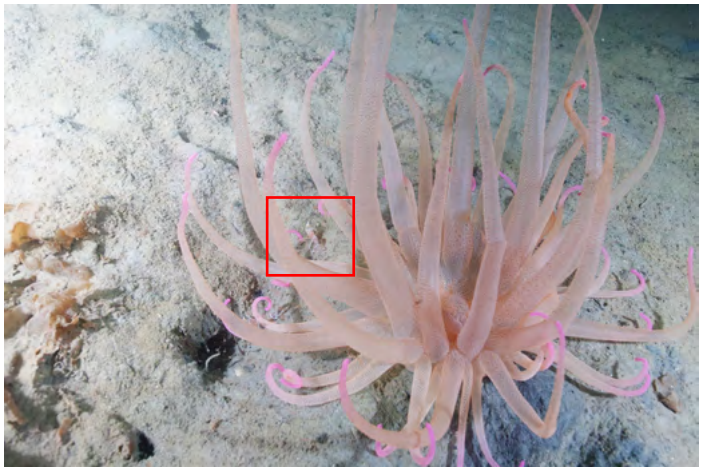
The new Dome Port Cover S has slits on top/bottom to help easy installation of the cover on compatible dome lens/port which is equipped with a protector.

www.inon.co.jp

Acquapazza APSG-sdQ housing for the Sigma sdQuattro

The Acquapazza APSG-sdQ housing for the Sigma sdQuattro went on sale on August 10th.

The housing adopts the “LB port” which can accommodate lenses up to 108mm in diameter. As a result the Sigma 14mm wide lens can be used. As the camera is an APS-H sensor, it can use this lens full frame and the 170mm diameter dome port provides excellent image quality.



The same extension ring works with 14 mm and 20 mm lenses but they need separate focus gears.

Five kinds of attachments are attached to the upper part of a grip.

If you want to trigger an external strobe you can use the LSS2. With this you can use a multishot and shutter speeds up to 1/320.)

On the right-hand side the housing is fitted with QS a lever which provides easy to access to the QS button.

The hand grip inclines 20 degrees and there are five ball joints in all for attaching accessories.

The housing is protected with double O ring seals on the main closure and also all rotating and push button controls.

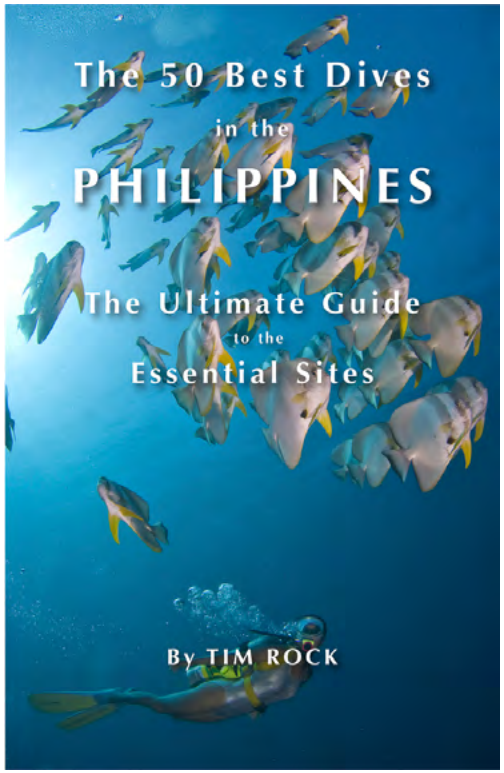
The polished push button controls are 10mm in diameter for ease of operation. In addition they are eirther angled of extended for easier operation.

For viewfinders you can choose from three kinds, the “45-degree viewfinder” from INON, a “straight viewfinder”, and a “finder window.” (Nothing is attached at the time of housing purchase)

There are two tripod sockets in the base so you can use any commercially available tripod.

www.acquapazza.jp/en

Philippines 50 Best Dives



Author Tim Rock and Manta Ray Publishing is happy to announce the availability of the second book in the Top 50 Best Dive Sites series.

The 50 Best Dives in the Philippines, The Ultimate Guide to the Essential Sites by TIM ROCK is now available on Amazon, Blurb and Apple iTunes in paperback, ebook, PDF and Kindle versions

This book describes the very best of the dive sites across the vast expanse of the 7,000+ islands of The Philippines. It is an inventive new concept, including both popular and off-the-beaten-path sites, outer reefs, historic shipwrecks and remote atolls. It is fun to page through, remember the sites you have visited and add new sites to your bucket list. The book covers the Malapascua, The Visayas, Puerto Galera, Bohol, Anilao, Palawan, Tubbataha and many more hot spots. Full color throughout with over 225 full color photos and maps.

This is the second volume in a series that also includes Micronesia's 50 Best Dives and the soon-to-be-published Indonesia's 50 Best Dives.

See these websites for a copy of this innovative new bucket list book:

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MANTA: Secret Life of Devil Rays

Manta rays are the embodiment of nature's majesty, they captivate and connect people to our oceans. Marine biologist Dr. Guy Stevens and National Geographic photographer Thomas P. Peschak join forces to the create the world's first book on manta rays. As co-founders of the conservation charity The Manta Trust they combine ground-breaking photography and the latest scientific research to create this book on these charismatic animals. The authors hope that this definitive publication will convey the grace and inquisitive nature of these threatened rays, capturing what is at stake if we choose not to respect and protect our oceans.

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Freeze Frame by Doug Allan

Have you ever been watching one of the BBC's groundbreaking wildlife documentaries and thought "How did he get that shot?!" – well now you can find out the incredible stories behind the images in Doug Allan's debut book.

Braving the elements and depths of the Antarctic and Arctic Oceans, Doug has produced a fascinating 240 page book filled with exceptional photographs and secrets of life behind the lens, giving you a peek into the often hostile yet inspiring world of a wildlife cameraman.

This book is so much more than a collection of superb images. Doug started life as a research diver in 1976 at Signy Island, Antarctica. Now with 35 years of experience in the Antarctic and Arctic, the stories that accompany every picture in this book tell of Doug's astonishing adventures and encounters, his insights and emotions, his deep understanding of the biology of the animals and the psychology of film-makers.

You can pre-order Doug Allan's new book "Freeze Frame" in hardback using the button below: £25 + postage

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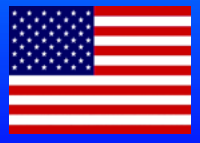


Made in the USA

"Often copied, never equaled"

Ikelite Olympus E-M1 MKII

by Phil Rudin

Ikelite Underwater Systems is a USA based company and during its fifty plus years in business Ikelite has expanded its distribution network to cover most areas of the world. Ikelite has a large and loyal customer base founded on excellent customer support and product reliability.

At DEMA 2014 Ikelite debuted a new line of mirrorless camera housings featuring the Dry Lock Micro (DLM) lens port system which I reviewed in issue #85 of UWPMAG.com using the Ikelite housing for Olympus E-M5 II.

Recently Ikelite released its first housing for the Olympus Pro line of cameras with the Olympus OM-D E-M1 Mark II housing. With new lighter ports being added to the product line and a lighter thinner back plate being developed for shallow water applications like surf photography Ikelite is always expending its product line with new innovations.

Olympus E-M1 Mark II

The Olympus E-M1 mark II was selected 2016 camera of the year by a number well respected reviewing sites and magazines who put far more time into pixel peeping than I do. I believe the E-M1 mark II is currently the best Micro43's camera for still photography available. Anyone who is interested in underwater photography should take a close look at this camera & housing.

For the purpose of full disclosure I have reviewed dozens and dozens of cameras, housings, ports, strobes and U/W photo accessories which I did not own. These reviews have appeared in Underwater Photography magazine and many other publications. For this review I used an Olympus EM1 II and several lenses which I personally own, in fact the Olympus EM1 II is now my go to camera for both underwater and top side photography.

The E-M1 mark II expands the hugely successful Olympus OM-D series and is a brilliant successor to the E-M1 platform released in 2013. The E-M1 mark II is the "Pro" end of the OM-D lineup and the new Olympus flagship camera. The E-M1 mark II directly targets Pros and high end enthusiast who don't mind shelling out $2000.00 USD for a highly capable and very compact camera body.

The E-M1 mark II would be compelling choice for DSLR users who may be considering a move into a mirrorless camera system. Current Olympus users wishing to move up from the Olympus E-M5/II and E-M10/II series cameras will also find the E-M1 II a no-brainer as an upgrade.

Olympus has completely outdone itself with a total redesign of the entire E-M1 camera from top to bottom. This is no incremental upgrade to stimulate new sales, instead the Mark II has exceeded all expectation for both the Olympus faithful and the seasoned reviewing community.

Some of the key upgrades include a new 20MP live MOS sensor, Cinema (DCI) and UHD 4K (237Mbps) video, Micro-HDMI, an insanely weather-sealed and temperature resistant body, a new hybrid 121 point auto focus system, high-res electronic viewfinder, fully articulating 3" LCD screen, 60 FPS burst rate, with mechanical frame rates up to 10 frames per second (18 FPS in continuous AF modes) a new TruePic VIII processor for blazing speed and excellent buffering, Dual card slots for SD/SDHC/and

SDXC (only one slot (top) for high speed cards) the best in-body image stabilization system made with up to 6.5 stops, USB-3 (type-C), 50MP high-res shot mode, a larger new battery that extends battery life to new levels for a mirrorless cameras, a more refined menu interface and the ridiculous number of controls and customizable settings that Olympus users now expect with each new release.

Olympus has also has an excellent line of lenses that are well suited to underwater photography. Along with the E-M1 MkII Olympus also introduced the new M.Zuiko Digital ED 12-100mm F/4 Pro zoom lens which is an incredible travel lens. The new lens follows in the footsteps of Olympus first M.Zuiko PRO lens the 12-40mm F/2.8 Digital ED PRO which was introduced with the E-M1 camera. Olympus rounded out the E-M1 II announcement with a powerful new FL-900R external flash which has a 58 m guide number, the new STF-8 macro flash set, the new HLD-9 battery grip and an underwater housing and more.

The E-M1 Mark II body is as expensive as many current mid range DSLR's. While many DSLR users in the underwater photography community are still debating mirrorless cameras they fully grasp the merits of APS-C over full frame sensor cameras for many underwater uses.

The APS-C and M43 cameras allow smaller housing designs, often use smaller lenses with smaller ports and smaller extensions. This will all add up to a more cost effective and travel friendly camera system. Smaller M43 sensors also increase depth of field and provide better corner sharpness with many wide angle lenses v. full frame. if you intend to replace your underwater photo system the high quality of the E-M1 Mark II and the total system cost makes a very compelling case for the Olympus E-M1 II / Ikelite/EM1 II housing combination. This camera also has excellent video capability which I will not be addressing in this review.

The all magnesium alloy body, overall build quality and finish of the E-M1 II exceeds or is comparable to any current $2000.00 plus pro DSLR or mirrorless cameras bodies. The E-M1 II is a bit chunkier than the E-M1 at 574g v. 497g making it easier to hold and operate both in and out of the Ikelite housing. Olympus E-M1 II's only downside over the E-M1 is a reduced flash sync speed down from the 1/320 sec. to 1/250 sec.

The Ikelite Housing

The Ikelite housing for the Olympus E-M1 II is the first

OM-D housing using a new design featuring an opaque gray ABS-PC polycarbonate material for the front section of the housing with a transparent DSLR/Sony mirrorless style polycarbonate housing back.

This attractive gray housing color matches the current Ikelite DS strobe line and always attracts the attention of other divers and photographers when I am in the field. The new housing color shades the camera to provide extra protection from the sun during long boat rides.

A direct electronic connection for Ikelite's single or dual sync cables allows effortless TTL connectivity with Ikelite DS-strobes like the two DS-161 strobes used for this review. Each housing has an integrated TTL encoding specific to the camera model being used.

For TTL you simply select Fill-in flash from the camera menu, then set the strobes to TTL and fine tune using exposure compensation through the super menu. The Ikelite strobes can also be fired in manual mode and the DS-161 includes a modeling/focus light. Strobes from Inon, Nikonos and Sea & Sea with Ikelite electronic sync connection or Nikonos sync with matching cords can also be used but will only fire manually.

The shutter release and the focus lock can now be accessed with the thumb and forefinger using vertical control triggers rather than the push controls found on some housings. This allows you to hold the housing by the right hand grip and control both shutter and focus locking (rear focus) while having a firm grip on the housing. I used rear focus on this housing for my entire review and found it especially useful for macro photography.

The Ikelite E-M1 MKII housing has four main components, the front "box" where the camera sits, a flat rear door, the removable front ports and the (optional) external camera tray which attaches with two mounting bolts on the bottom of the housing.

The front part of the housing where the camera sits has a track at the bottom where the camera tray slides into place. The camera is held in place on the tray by a single tripod screw. The tray has no locking device so be aware that the camera can shift before the rear door is mounted.

Once the camera is aligned in the housing the TTL bulkhead connector is mounted on the camera hot-shoe and the housing is ready to seal. The rear door of the housing is then secured by facing the housing down and making sure that the rear door O-ring has properly seated in the front half of the housing.

The two heavy duty lid snaps are then secured by pushing down. You should hear the lid snaps click into the locked position and you should not be able to lift the snaps without pushing in the snap locking device. I like to use equal pressure on both lid snaps so that they lock simultaneously.

Once the camera is secured inside the housing you can see the controls on the camera and align them with the housing controls. The right hand side of the housing has the vertical shutter release and

the back focus paddle. The left hand side has a lens release control which allows you to change lenses by removing the port while the camera remains in the housing.

The left top of the housing is also where the Vacuum system valve is located. The left top of the housing has the strobe cord sync port and the camera on/off dial. Next to the on/off dial two push buttons allow access the HDR/frame rate button and the AF/focus point button. These buttons can also be reprogrammed for just about any function you desire.

On the right top of the housing I programmed two control wheels for Shutter speed and Aperture control since I shoot exclusively in manual mode. Also on the right top is the mode dial with push button release, the Fn2 push button (which is yet unassigned) and the video start/stop push button which is in a great location where it won't be accidentally activated.

I removed the pickup viewfinder and replaced it with an optional 45 degree optical magnifier to enlarge the view into the electronic viewfinder. The EVF is already large for a camera of this size so the optical finders give an excellent corner to corner

view into the EVF. An optional 180 degree (which I also tried) can be selected if you prefer a straight viewfinder.

On the top left side of the rear door is the push control to cycle between EVF and LCD. I did not find a way to toggle the AEL/AFL 1 and 2 program level but you have access for use with the rear focus control. At the top right is the Fn1 button. Below that you find four push buttons for Menu, Info, Trash and Review. These buttons surround the four-way arrow buttons and OK button. The four-way arrows can be programed to control any number of functions.

I have the E-M1 MKII set to default to the super menu screen when I push the OK button and a second push takes me to the AF points array. I frequently use the super menu for changing ISO, AF settings, focus settings, the AF area array and much more.

Ikelite's new port mounting system is simple and ingenious. Rather than having an O-ring on each of the ports Ikelite placed the O-ring on the

port mount at the front of the housing making it quite easy to inspect and service. Just push the port onto the port mount and secure the three small thumb screws supplied with each port into the grove behind the O-ring. This system works easily and the ports have a very secure feel when mounted.

Ikelite has macro ports for the Olympus 60 mm macro, 30mm macro and Panasonic 45 mm macro lenses, all with 67 mm threads for mounting closeup lenses.

Ikelite offers six inch and eight inch acrylic dome ports for use with lenses like the Olympus 9-18 mm, 12-50 mm without macro control, 12-40 mm, all of the 14-42 mm lenses, Panasonic and Olympus 7-14mm, support for the Panasonic and Olympus 8mm Fisheyes plus many other lenses and a mirrorless housing port adapter for the 8-inch modular dome system which I used for the Olympus 8mm.

Port extensions and gears are also available with more ports being designed with zoom controls. Ikelite is also working on a design for the new Olympus 7-14 mm F/2.8 Pro and an extension for the 8 mm F/1.8 fisheye Pro lenses.

The housing includes a waterproof bulkhead cap to protect the strobe cord socket when not in use, front and rear O-rings, silicone O-ring lube, extra control and push button tips and a one year warranty. The US retail price for the Ikelite housing is $1295.00.

Field testing the Ikelite E-M1 MkII Housing

For my review I used the Ikelite E-M1 MkII housing with the Ikelite dual handle tray for compact housings, a double ball arm system with cable grip, two DS161 strobes with dual sync cord and Ikelite dome diffusers (My Ikelite DS161 review is in UWPMAG.com issue #81).

Normally I shoot all of my macro and wide angle using manual camera controls and manual flash settings. During this review I used manual settings for wide angle. For macro I relied on the excellent TTL I have come to expect from the DS 161 strobes assisted by in camera exposure bias from minus .3 to minus 1 stops selected in the super menu. These settings rendered rich and colorful captures as long as the strobes were properly aimed. I can't say enough about how well the TTL works, kudos Ikelite.

I found the Ikelite dome diffusers to be excellent for models, softening skin tones and reducing over exposed highlights. These domes reduce light output by about 1 to 1.5 stops so I try to shoot within about three feet of the

Ginnie Springs, Florida, Split image, Snorkelers, Olympus E-M1 Mark II, Olympus 8mm Fisheye, ISO-400, F/11, 1/250th sec, Ikelite Housing, Two Underwater Ikelite DS-161 Strobes with Dome Diffusers, Notice the curved water horizon of the fisheye lens.

model. I also try to keep the domes well behind the lens and in a flat plain with the housing grips so they won't over power the edges of the frame.

The small housing is negatively buoyant and I would suggest adding foam blocks or float arms for better overall balance and control.

Entering the water with the added buoyancy my system was extremely easy to dive and snorkel being every bit as streamlined as any of the small mirrorless housings I have tested in the past.

My lens selections included the Olympus 60mm F/2.8 macro, the Olympus 8mm F/1.8 Fisheye, Olympus 12mm F/2 and the Olympus 7-14 mm F/2.8 wide angle zoom all used with Ikelite ports. For super macro I also selected Inon's UCL-67 M67 and Inon UCL-165 M67 closeup lens (see my Inon lens review in this issue). I had no problem installing and

removing the UCL-67 using the Ikelite macro port.

The Ikelite zoom gear for the Olympus 7 to 14mm wide angle zoom lenses simply pushes onto the lens from the rear and the lens is then mounted from the front of the housing before the port is installed. The gear is moved by a knob on the dome port extension not the housing which helps to reduce the overall size of the housing.

For my review the eight inch dome with zoom control was not yet available. Instead I used the DLM dome port with zoom extended .375 inch optical-grade six inch diameter acrylic port. While a six inch diameter port is not ideal for this lens it got the job done. I needed to hold the zoom control knob between my thumb and forefinger to easily zoom the lens so it could not be done while holding the left grip at the same time. For video users wishing to use a smooth zooming motion this could present a problem.

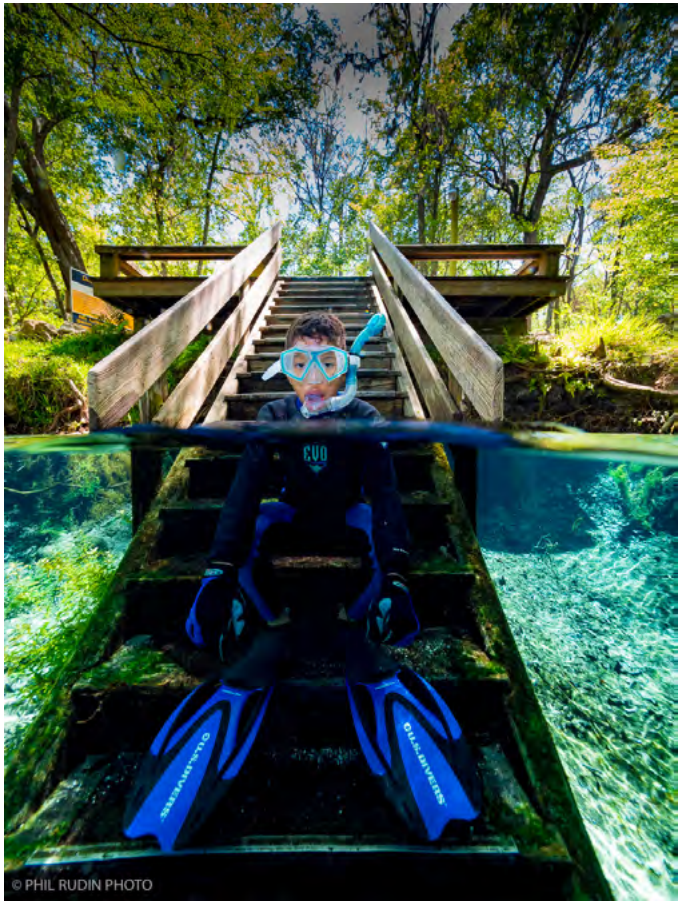
The E-M1 MKII AF has proven to be both faster and more accurate than its E-M1 predecessor for all lenses. I used the 45 degree viewfinder for all of my macro work and the straight viewfinder for some of the wide angle work.

This camera has excellent response in live view and I would not hesitate to use it with fast moving subjects like sharks. While I tend to stick to S-AF the C-AF is now on par with most DSLR's. I have been able shoot the Olympus 12mm at 18 FPS and nailed 18 continue frames of a fast moving subject without loss of critical focus.

Once I had used the housing for a dive or two I had no worries about jumping from the dive platform with the system in hand or any of the other abuse I heap on test gear to evaluate field worthiness. This is an excellent little travel system and I could easily fit all of the components into my Airport express carry-on bag.

Searobin, Blue Heron Bridge, Florida, Olympus E-M1 Mark II, Olympus 60mm F/2.8 macro lens at about 1:3, Ikelite Housing & macro port, Two Ikelite DS-161 strobes using TTL, ISO-200, F/14, 1/250th.

Ginnie Springs, Florida, Split image, Model Roman, Olympus E-M1 Mark II, Olympus 7 to 14mm zoom at 7mm, ISO-320, F/6.3, 1/60th sec, Ikelite Housing, Two Underwater Ikelite DS-161 Strobes with Dome Diffusers, Notice the straight lines of the decking and water horizon at 7mm v. the fisheye lens.



I have reviewed several Ikelite housings for both Mirrorless and DSLR cameras but I have not had the opportunity to use three of the Ikelite accessories provided for this review.

First is the new and highly recommended vacuum system. The valve is small and mounted on the left side of the EM1 II housing. Pushing a button pops the valve plug out of the valve and allows the vacuum pump to snap into place. The snap means the seal has been made. A few squeezes on the pump handle and the vacuum is drawn.

Ikelite recommends pumping until the pump gauge reaches 5 to 10 inches of mercury. The vacuum valve can be retro fitted by the user into current and many discontinued housings, check with Ikelite for compatibility with the housing you own.

The vacuum system can also be added as a factory option and retails for around $125.00 in the US. The ikelite.com web site has a tutorial video for owner installation and use of the vacuum system.

The other accessories which I would also recommend are the 45 and straight (180 degree) magnified viewfinders. The viewfinders can also be

Ginnie Springs, Florida, Snorkelers Chloe on the left and Valerie, Olympus E-M1 Mark II, Olympus 8mm Fisheye, ISO-400, F/11, 1/250th sec, Ikelite Housing, Two Ikelite DS-161 Strobes with Dome Diffusers.

Coral Polyp Detail, Blue Heron Bridge, Florida, Olympus E-M1 Mark II, Olympus 60mm F/2.8 macro lens at 1:1, Ikelite Housing & macro port, Two Ikelite DS-161 strobes using TTL, ISO-64, F/14, 1/250th sec.

The Ikelite E-M1 MKII housing retails for $1295.00 in the US, Ikelite ports range from around $250.00 for the macro ports to over $400.00 for the large domes. Ikelite TTL strobes range in price from around $450.00 to around $950.00 for the DS161 strobe/video light with the new NiMH battery technology which produces over 225 full power flashes.

I would like to thank Ikelite for their continued support with Underwater housing systems. Please contact your local authorized Ikelite dealer for pricing in your area. For further information on this new system including dimensions and dealer network visit:

www.ikelite.com

Phil Rudin

user installed, so refer to the tutorial video which is also on the Ikelite web site.

I have been a long time user of the 45 degree finder having owned several. They work very well for macro allowing you to stay above the subject and off of the bottom avoiding damage to the surrounding environment. The 45 degree finder also has a steeper learning curve because it is often being used with longer lenses and at an odd angles v. the straight finder or LCD.

The straight finder is excellent for fast moving subjects, vertical subjects like wrecks and walls, panning and more. To get behind the straight viewfinder for macro your body needs to be lower or you will always be shooting downward angles. I enjoyed both viewfinders and as long as the camera diopter is correctly set for your vision they can be a godsend for old eyes and those with poor vision.

Finally for those who already own an E-M1 underwater system the switch to the E-M1 MKII can be a conundrum. Ikelite did not support the original E-M1 so you would not be replacing an Ikelite housing. For most who have made the switch I have heard little regret or dismay over the decision.

The MkII is a very much improved camera not just a MP bump to keep people buying. If you are an above water user the 50 MP high resolution mode is vastly improved operating in a fraction of the time the E-M1 system used. If you shoot landscapes, still-life, architectural and more you will love this feature.

Video is improved in every way as well. Lastly if you decide to make the switch the E-M1 seems to do very well in the used market selling much faster than other brands I have followed.

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 ovnoroaminrobin@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 worlwide.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 Sollböck~~

~~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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RETRA Flash - Field Review

by Alex Mustard

The Retra Flash is big news. A brand new strobe and a new manufacturer joining the underwater strobe market are rare events. Most serious shooters already know Retra as the European company behind the widely used LSD (Light Shaping Device - their optical snoot) and other innovative accessories, such as the uTrigger underwater remote release. Yet, however you look at it, building a brand new underwater strobe is a big step up, especially because, given its specs, the strobe is likely to appeal to so many underwater photographers.

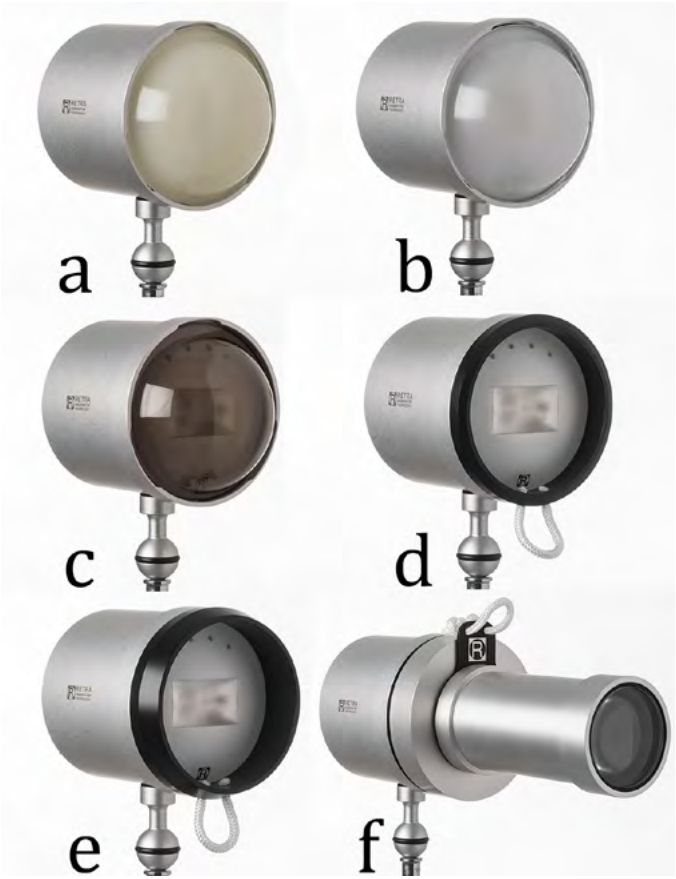
The Retra Flash is clearly pitched as a straightforward performance upgrade for photographers currently shooting INON Z240, Sea & Sea D1/D2 type strobes. It is a similar size to both (my INON Z240 weighs 670g, the Retra weighs 722g on my kitchen scales), but has noticeably more welly (at 100W/s – PB: "they were more powerful and had a faster recycling time"), with a wider spread of warm, soft light. It is well timed too, since many photographers love their INONs in particular, but have often given them years of hard labour and yearn for something new and with a bit more horsepower.

The Retra may have similar proportions, but looks very different, being made from tough and attractive aluminium. It has connectors for both fibre and electronic flash triggering. It will accept any of the INON, Sea & Sea or Nauticam fibre optic cables (offering sTTL, and manual shooting with and without pre-flash) and comes as standard with a Sea & Sea electronic synch socket - the same as INON Z240 and Sea & Sea strobes - although S6, Nikonos 5 pin and Ikelite 5 pin sockets can be ordered instead. And it even takes 4 x AA batteries,

Full disclosure: I have been one of the photographers feeding ideas into this project and I have done the field-testing of the pre-production flashes (in the Red Sea) and also putting production spec strobes through their paces (in Cayman and Cuba). That said, I am not on Retra's payroll and do not benefit in any way from sales. I also farmed the strobes out to photographers (Peter Berndt (PB), Josef Litt (JL) and Nick More (NM)) on my workshops and their thoughts are also included here in bold italics.

The small size of the Retra Flash benefits strobe positioning, when strobes need to be pulled in close to the lens for close focus work.

The controls: the shorter knob (on the left) controls the mode, the longer knob (on the right) the power - both manual power (max 100) and TTL compensation increase the strobe brightness by turning clockwise. Electronic synch (bottom left) and fibre optic triggering (bottom right) are provided.



The bayonet mount on the front enables accessories to be used to alter the quality of light:
a) the Wide Angle Diffuser (included) is designed for standard and close focus wide angle in blue water and is also good for fish portraits and macro,
b) the White Diffuser is for standard and close focus wide angle in green water,
c) the Shark Diffuser is designed to warm the light, but not diffuse it too much to help it light more distant subjects, like sharks, schools of fish and large reef scenes,
d) the Protection Ring is to protect the front of the strobe when shooting without diffusers, such as for macro or Crossed Strobes lighting,
e) the Reduction Ring reduces the angle of the beam, a common technique for reducing backscatter on low visibility dives, the sharp edge to the beam is also useful for Inward Lighting,
f) the Light Shaping Device (LSD) an optical snoot.

The soft warm light from the Retra Flash and Wide Angle Diffuser is ideal for shooting scenic wide angle. Sponges, Grand Cayman. Nikon D5 and Nikonos RS 13mm. Subal ND5 housing. 2 x Retra Flashes. 1/200th @ f/18. ISO 320.

meaning upgraders can continue with the same batteries, chargers, cables etc.

Retra's General Manager, Oskar Zupancic, explains its genesis "making the LSD taught us lots about existing light sources and different qualities of light. As underwater photographers we felt we could bring something new to the strobe market with, although it sounds slightly funny, a strobe fully focused on quality of light."

Light is the Retra Flash's trump card. The Retra offers a considerable jump in power over its rivals (***JL: "I had to open the aperture more to get a similar amount of light on the reef with the INONs***)", but it is the quality of light that I found more exciting, especially with the domed wide angle diffuser (included with the strobe) that the flash tube and reflector have been optimised to work with. The specs say the diffuser warms the light to 4500K and spreads it to cover 130˚, underwater this translates to attractive soft, wide light that is both more forgiving to use and more flattering on most subjects (***NM: "I was impressed with the power and quality of light, even shooting into a bright sunball"***). While warm light doesn't just improve skin tones, it also improves the blues of our backgrounds (see my article UWP 42).

Furthermore, the diffuser mounts via a bayonet which has allowed Retra to build a variety of different accessories, so that photographers can shoot with hard or soft light, warm or cool light, or

The soft light from the Retras suits many subjects, producing a subtle, attractive illumination. Dolphins, Egypt. Nikon D5 and Nikonos RS 13mm. Subal ND5 housing. 2 x Retra Flashes. 1/250th @ f/13. ISO 500.

Soft light also suits many macro subjects, such as this tiny spinyhead blenny living in a hole in a red sponge, Grand Cayman. Nikon D7200 and Nikon 105mm and FIT +5 dioptre. Subal ND7200 housing. 2 x Retra Flashes. 1/320th @ f/13. ISO 100.

even help it reach further for lighting bigger scenes (see the captions for more details). Most photographers will stick with one option per dive (and the standard wide angle diffuser should be your default), but it is easy (without thick gloves) to change them underwater and alter the quality of light to suit the subject and effect you are after. I think we can expect Retra (and perhaps other companies) to release even more options over time.

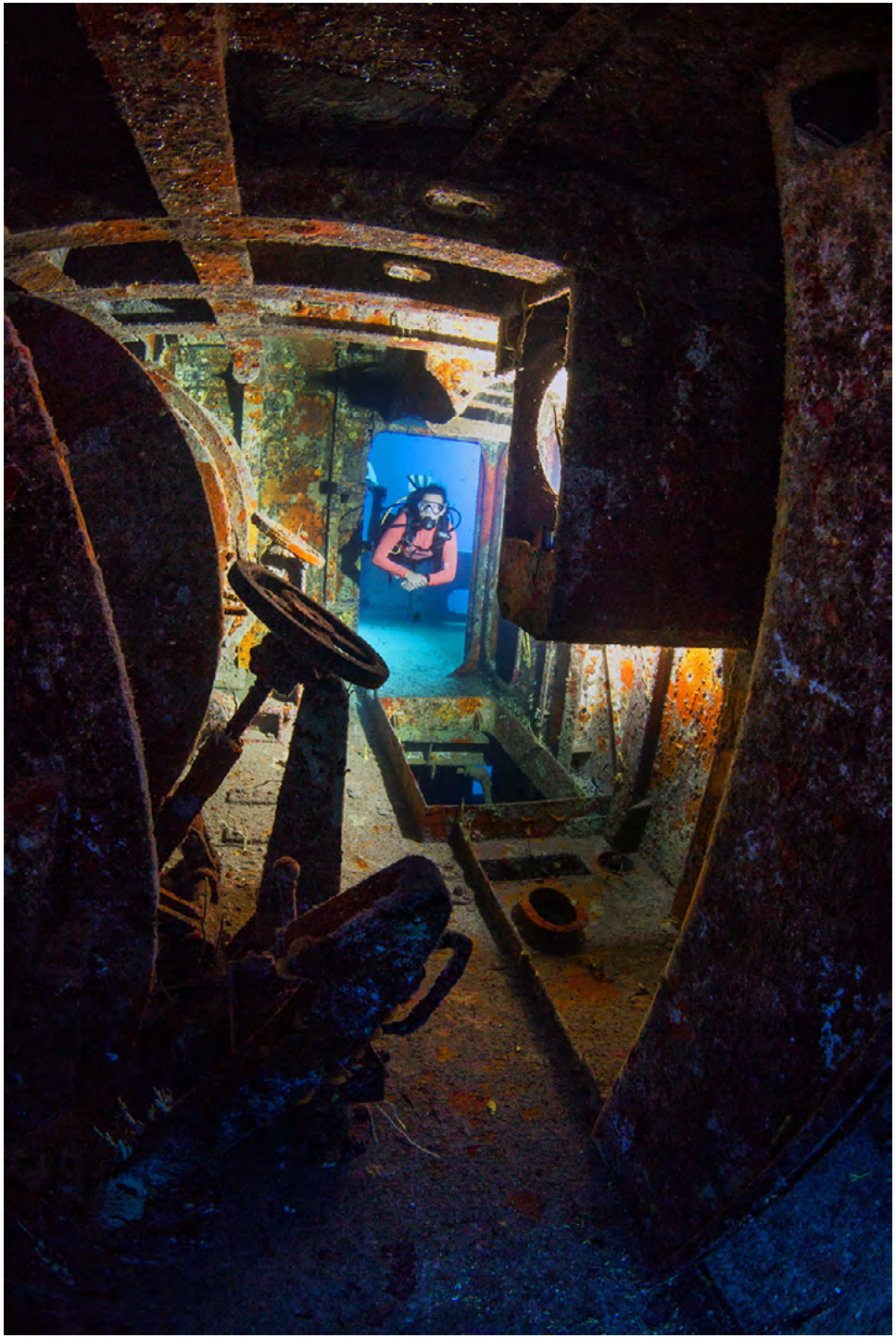
Retra's other key strength is that they have reached out for opinions and listened. "We asked several leading underwater photographers what they would like to see in an ideal strobes and their advice was the foundation of the design and specifications," explains Oskar. "And then when we went public with the prototype at the start of the year, we received more feedback from the UW photo community and refined the design further."

The result is that the strobes are intuitive to use and packed with neat features that really enhance their ergonomics in the field. For example, the two control knobs on the back are different lengths, so that you can distinguish them without looking, turning the longer one to adjust strobe powers. The ready light is different colours depending on mode, giving you instant reassurance you are in the right one, and is positioned to illuminate the dials in the dark. When you turn the strobe on, the remaining battery power is usefully displayed across 4 LEDs on the front panel. And the strobe has a central aiming or pilot light (***JL: "I do not like the misaligned light on my INONs when using the LSD"***), with different power settings that includes a bright 300 lumen level to aid aiming the LSD in daylight. I've not tried the strobe with the LSD yet.

The pilot light button also controls a few hidden features. For example in the ON mode (for

The warm light from the Retra Wide Angle Diffusers produces flattering skin tones. Egypt. Nikon D5 and Nikon 8-15mm. Subal ND5 housing. 2 x Retra Flashes. 1/250th @ f/14. ISO 800.

The Retra flash's combination of power, coverage and small size makes it an excellent off camera strobe.
Photo by Greg Clifton, Grand Cayman. Canon 5D Mk3 and Canon 8-15mm. Aquatica housing. 1 x Retra Flash off camera. 1/125th @ f/13. ISO 800.



I used the Protection Rings and no diffusers for this photo to reduce backscatter inside the silty Thistlegorm. Egypt. Nikon D5 and Nikonos RS 13mm. Subal ND5 housing. 2 x Retra Flashes. 1/6th @ f/14. ISO 800.

The Retra flash has plenty of power to illuminate large reef scenes in bright tropical conditions. Egypt. Nikon D5 and Nikonos RS 13mm. Subal ND5 housing. 2 x Retra Flashes. 1/200th @ f/14. ISO 500.

electronic synch) it can be pressed and held in for four seconds to cancel the strobe ready beep noise. While in SL mode (for fibre optic synch) the same button enables a smart pre-flash mode, that senses the type of pre-flash your camera gives and adapts the strobe to it.

An unusual, although enticing option is the battery pack extender, which bolts very securely in place of the standard battery compartment door and increases the battery capacity from 4xAA to 8xAA, doubling the battery life and halving the recycle time. I tried this in the Red Sea, but didn't use it in the Caribbean because recycle times was not an issue. For normal reef diving, we rarely shot them at full power and therefore there was no noticeable wait for recycling (***NM: "the recycling times were good shooting at half power", JL: "I used the Retra's on half power, while I had to use the INONS on 11 or full to light a reef scene"***).

Myself and 8 other photographers shot with the strobes with Nikon and Canon SLRs, crop sensor and full frame. The strobes were triggering electronically and through fibre (triggered using pop-up flash, LED circuit board and Nauticam's flash trigger) and they worked reliably with all. I didn't let anyone read the instructions – I just told them what mode to use (ON for cables, SL for fibres) and let them figure them out. Which they all did. The Retra's controls are logical and ***NM: "easy to use"***.

Any problems? One of the synch sockets on Subal ND5 housing was flooded, yet continued to work with my Seacam strobes. However, it stopped my camera working reliably with the Retra Flashes and Sea & Sea cables in the Caribbean. This was a housing issue because the Retras worked fine with the same cables and housing in the Red Sea. The strobes also worked perfectly with the same cables on a Subal ND810 housing lent to me by Predrag Vuckovic. ***PB commented that the battery compartment was difficult to fit and unscrew. JL found the strobe sensitive to old batteries "I had one battery set that was not top notch and the strobe kept switching***

Sunset splits are very demanding of strobe power and coverage (especially with a circular fisheye), because they must be shot with a closed aperture. Jetty, Egypt. Nikon D5 and Nikon 8-15mm. Subal ND5 housing. 2 x Retra Flashes. 1/250th @ f/22. ISO 800.

off." This problem disappeared with newer rechargeable AAs. The Frank Zappa quote that is engraved inside the battery compartment confused everyone! Finally, the strobes did not have the TTL circuitry enabled, so I could not test that.

The question I cannot answer in a review like this concerns reliability. Strobes are complicated and the higher the performance the more the electronic design is tested. This is perhaps the main reason why we see so many manufacturers of arms, clamps and dioptres and so few who make underwater strobes! What I can say is that the strobes took the abuse we threw at them. And that Retra have submitted the strobes to a series of tests that massively outstrips any usage they would get in the real world. For example, Oskar told me of one test where they fired "the strobe on repetitive 100% power flashes, which would destroy the lamp or damage the electronics of any strobe out there, due to overheating. We made a series of 1000 full power flashes with just a 2 second interval between them without problem. The aluminium housing helps cool the electronics and the use of a high quality quartz glass lamp prevents the glass from melting under extremely high temperature."

In conclusion, Retra have clearly hit their goals of producing a small, yet powerful strobe, that looks great and has a real focus on quality of light. The first thing you notice is the power, but as you look properly at your images you appreciate the quality of light too. The more you shoot them, the more enticing the ability to change your quality of light becomes and this is artistically empowering. All the photographers who tried them felt they clearly outperformed their current strobes (***NM: "I am impressed"***), but whether you should upgrade will depended on whether you need more power, and/or how old you current strobes are. If you've just invested it is harder to justify, ***JL: "I would not upgrade to them, but I would choose them over my INON Z240s."***

The Retra Flash is currently available for pre-order from the manufacturer at €699 Euros, which includes worldwide express shipping, wide angle diffuser, neoprene protective cover, 1" mounting ball and 2 Year Warranty from Retra.

Deliveries are expected to start in September 2017. Note that if you live in the EU, like me, you will also have to add 22% sales tax. If you live outside the EU, you may have to pay import duty.

www.retra-uwt.com

Alex Mustard
www.amustard.com

Olympus 30mm macro

by Phil Rudin

The Olympus M.Zuiko Digital 30mm F/3.5 Macro lens was formerly announced at Photokina in September of 2016, along with the Olympus E-M1 MkII, 25mm F/1.2 Pro and the 12-100mm F/4 IS Pro lenses. The Olympus ZD 30mm is the second Olympus dedicated macro lens for the ever growing Micro43 camera segment. I did reviews for the Panasonic-Leica 45mm M43 lens in UWP #65 and the Olympus 60mm F/2.8 UWP #69 which can be found in the "Back Issues" section for this magazine.

The Budget (bottom tier) Olympus ED 30mm macro is less robust lens than Olympus ED 60mm F/2.8 macro which is dust and splash-proof ("weather-sealed"). At 57 mm V. 82 mm the 30mm macro is shorter than the 60mm and weights a mere 128g (4.52oz). The 30mm macro has a 40 degree angle of view, seven rounded blades and seven elements in six groups. The minimum focus distance is only 9.5 cm (3.74 inches) and maximum magnification is 1.25X or 1.25:1. This is 25% greater magnification than most macro lenses like the Olympus 60mm macro lens which maxes out at 1:1. At full magnification the lens should fill the frame with a subject that is 13.92 mm X 10.4 mm smaller than a US Dime by about 4 mm. This is also about 2.5 times smaller than a full frame 35mm sensor at 1:1.

The Olympus 30mm macro is movie and still compatible (MSC) which means it has excellent auto focus and near silent operation. The 30mm macro does not have the focus limiting capability of the Olympus 60mm macro so it will focus through the entire focus range when shooting macro. The focus point scale (infinity to 1:1) found on the 60mm macro is also missing, this is a feature that is useless underwater because of the macro port blocks the scale. The 30mm F/3.5 macro provides very sharp results even wide open at the

Lined Seahorse, Blue Heron Bridge, Florida, Olympus E-M1 MkII, Olympus 30mm F/3.5 macro lens, Nauticam NA-EM1II housing, Nauticam 45 macro port, Nauticam 45 degree optical viewfinder, Nauticam flash trigger, Two Inon Z-240 strobes, ISO-64, F/16, 1/250th sec.

F/3.5 setting.

This lens is easy to use and offers a very wide range of subject sizes between 1.25:1 and around 60 cm (24 inches) which is the focus range I try to stay within. Because the AOV is twice as wide as the 60mm macro you can shoot subjects you would need to be twice as far from using the 60mm macro while still getting greater total magnification and wider depth of field. The downside is that you need to get very close to your macro subjects which at times is just not possible.

The other downside at this time is that many of the recommended ports for this lens are not custom designed for the lens. With several one size fits all macro ports the 30mm macro sits way to far back from the port glass to take advantage of the full range of the lens.

At the full 1.25:1 setting critical focus will be very near the port glass making it near impossible to use with skittish subjects or subjects that are not in a flat plane with the lens. At the retail price of $299.00 US this lens is a bargain and it is now on sale

Seaweed Blenny, Blue Heron Bridge, Florida, Olympus E-M1 MkII, Olympus 30mm F/3.5 macro lens, Nauticam NA-EM1II housing, Nauticam 45 macro port, Nauticam 45 degree optical viewfinder, Nauticam flash trigger, Two Inon Z-240 strobes, ISO-200, F/16, 1/250th sec.

Flying Gurnard, Blue Heron Bridge, Florida, Olympus E-M1 MkII, Olympus 30mm F/3.5 macro lens, Nauticam NA-EM1II housing, Nauticam 45 macro port, Nauticam 45 degree optical viewfinder, Nauticam flash trigger, Two Inon Z-240 strobes, ISO-200, F/5.6, 1/250th sec.

in the US for $199.00 a deal I would not pass up if you are a dedicated Micro 43 shooter.

Field testing the Olympus 30mm F/3.5 Macro

For my field tests I used the Olympus E-M1 MkII camera, Olympus 30mm Macro, Nauticam NA-EM1II housing, Nauticam 45 macro port, Nauticam 45 degree optical viewfinder, Nauticam flash trigger and two Inon Z-240 strobes.

With the Nauticam 45 macro port the front of the port glass is about 5 mm from the macro lens glass. Keep in mind that Minimum focus distance is always measured from the sensor to the end of the lens. This lens has a minimum focus distance of 9.5 cm.

The distance from the sensor to the end of the lens is very close to 8 cm, the distance from the lens to the outside port glass is about 5 mm leaving about 10 mm between the port glass and the in focus part of the subject at 1.25:1. I have included a full frame photo of a Seaweed Blenny at the 1.25:1 taken about 10 mm from the subject.

Getting the strobe lighting between the port and subject is a challenge which involves putting the strobes at almost a ninety degree angle to the port glass and behind the port. I would estimate the Seaweed Blenny to be 8 mm from the front of the month to the back of the head with about 3 to 4 mm of negative space on each side.

I also included a Flying Gurnard image in full display, which is at least 30cm+ from fin tip to fin tip taken from around 60 cm (two feet). The animal fills the frame and

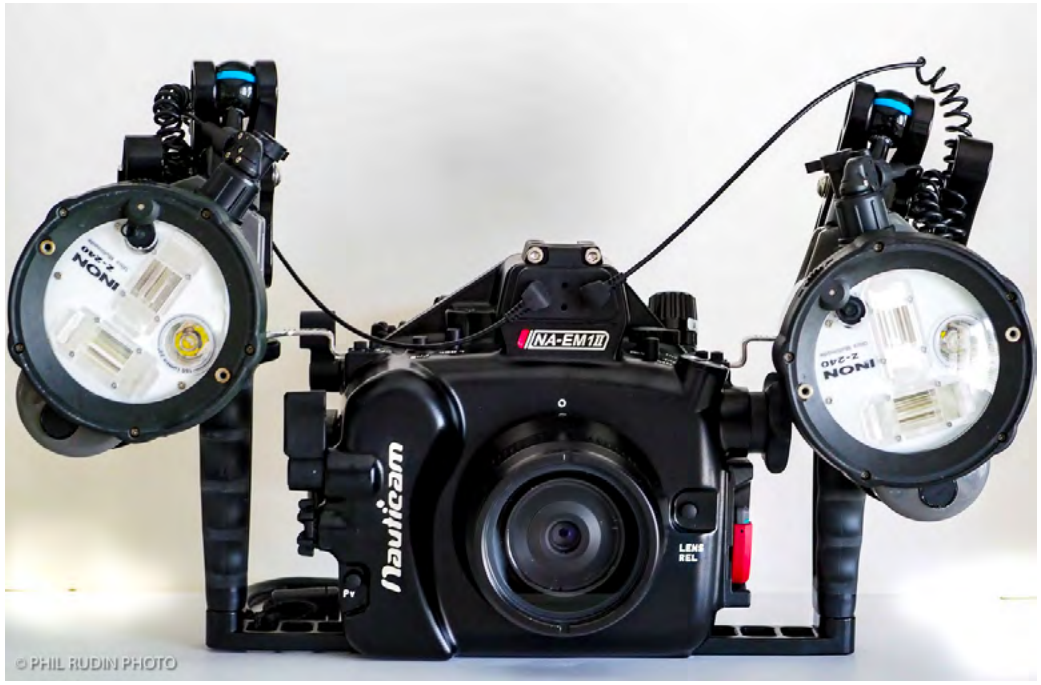
Sand Perch, Blue Heron Bridge, Florida, Olympus E-M1 MkII, Olympus 30mm F/3.5 macro lens, Nauticam NA-EM1II housing, Nauticam 45 macro port, Nauticam 45 degree optical viewfinder, Nauticam flash trigger, Two Inon Z-240 strobes, ISO-64, F/3.5, 1/250th sec.

gives an idea versatility of this lens for very small to mid size subjects.

Because of the high 1.25:1 magnification for this lens and the 10 mm minimum focusing distance, attempting to add a closeup lens would be useless.

I have included a Sand Perch photo taken at the widest F/3.5 setting and you can see that the eye is quite sharp even wide open. Also notice that at F/3.5 depth of field is very shallow. At F/3.5 I had to use the "low" ISO-64 setting and turn the strobe power way down to avoid overexposing the image.

I have also included a photo of one of my favorite configurations for the Nauticam NA-EM1 II housing and Inon Z-240 strobes. I use the Nauticam Standard Long clamps (Part #72503) and mount the strobes



directly to the ball heads on the housing grips. The long clamps allow me to move the strobes above the macro port to help prevent blowing out the sand in the bottom of many macro frames. I can also turn the strobes inward for the very close work and tilt outward for wider shots. I have found this same configuration to work very well with the Olympus 8mm Fisheye and the Olympus 12mm F/2 using the Nauticam 140 mm and Zen Underwater 100 mm optical glass dome ports.

If you are looking for an inexpensive way to add a macro lens to your M43 kit or you want to expand your M43 macro lens collection I recommend trying the budget Olympus 30mm macro. The results with this lens far exceed its price point.

Phil Rudin

Inon UCL-67

by Phil Rudin

Founded in 1994 Inon Inc. is a Japanese company which is well respected in the underwater photography world. I am sure many UWP readers have already been using Inon strobes, wet lenses, LED lights or any the hundreds of other products Inon offers.

The Inon UCL-67 (underwater close-up lens) is designed to deliver high magnification with superior image quality across a board range of camera bodies.

Best suited to full frame DSLR macro lenses in the 60mm to 100/105mm range the lens can also be used with 40mm to 60mm APS-C macro lenses and 45mm to 60mm Micro Four Thirds lenses. The lens is also well suited for compact digital cameras having a maximum optical zoom of 5X or less.

As with all close-up lenses vignetting may occur if the close-up lens is place to far from the primary lens. Vignetting is observed most often when the macro lens sits to far back from the port glass or a flip adapter is used that moves the C/U lens to far away from the primary macro lens.

The closer the two lenses are to each other the less vignetting and the

greater the magnification.

The UCL-67 lens is available in the M67 series which has standard 67 mm threads for direct mounting to a macro port or flip adapter. The UCL-67 28LD series has the lockable Inon 28LD mounting base for use with a verity of compact camera housings. The 28LD series is designed to allow a quick change between wide angle and close-up lenses.

Corrosion resistant aluminum alloy is used for UCL-67 and 28LD series. The lens is designed with four optical glass elements in three groups and has lens coating on both sides. The use of achromatic lens element suppresses chromatic aberration and the addition of an anti-reflective lens coatings reduces ghosting and flare.

The UCL-67 is depth rated to 60m (197ft) and has a maximum magnification of +15 diopter. Diopter (US) is a unit of measurement for the optical power of a lens. The higher the number (in this case +15) the greater the lens power. At the minimum

Coral Polyp Detail, Olympus EM1 II, Olympus 60mm macro lens at 1:1, Ikelite Housing, ISO-200, F/7.1, 1/250th sec.

+15 Inon UCL-67 M67

focusing distance of (1:1) with a Nikon 105mm F/2.8 IF-ED lens working distance from this C/U lens is about 52 mm or 83.4 mm from the port surface. On a full frame camera body the magnification would be 2.76X at the minimum focus distance.

The optional "Lens Adapter Ring" for UCL-67 allows a second m67 close-up lens like the Inon UCL-165 M67 or UCL-330 to be mounted on the front of the UCL-67 for even greater magnification.

Wet close-up lenses are quite popular with underwater macro photographers for obtaining images with magnification beyond the 1:1 (life size) produced by most of the modern macro lenses sold these days. To understand how wet closeup lenses will work with your macro photography equipment you must first have a reference point for the equipment you are shooting with. Not all image sensors are the same size and as a result images captured with a macro lens set at 1:1 will not all be the same image size.

The term 1:1 or "life size" represents a reproduction ratio where

Reef Urchin Detail, Olympus EM1 II, Olympus 60mm macro lens at 1:1, Ikelite Housing, ISO-200, F/8, 1/250th

+15 Inon UCL-67 M67

the subject you are photographing is the same size on the image sensor or film plane as it is in real life. So if you have set your macro lens to 1:1 and you take a sharply focused photo of a subject which is 20 mm in length then it should take up the same 20 mm's on the image sensor or film plain.

If you are using a camera with a 35 mm "full frame" sensor like the Sony A7R II where the sensor size is 36 X 24 mm your subject should have about 8 mm of negative space on each side if the subject is centered and on a flat plane in the frame. With a 1.5X "cropped" sensor like the one in the Nikon D7200 the sensor size is 23.5 X 15.6 mm so at 1:1 the 20 mm subject would have about 1.75 mm on each side when centered.

With a Micro 43 camera like the Olympus OMD E-M1 II the image sensor is 17.4 X 13 mm and in this case the 20 mm subject would be cut off by 1.3 mm on each side. The smaller the sensor the smaller the subject that will fully fill the frame with a macro lens set at 1:1. Smaller sensors also increase depth on field for a given angle of view and like F/ stops. So a lens with a 24 degree angle of view on a 35 mm sensor at say F/11 will have less depth of field than a lens with a 24 degree angle of view on a M43 camera at F/11. Bottom line is that everything in photography is a tradeoff. Better overall image quality with a larger image sensor verses a much smaller critter filling the frame and better DOF with a small sensor camera.

I did not have access to a full frame 35mm camera for this review so all of the images are taken with a Micro/43 Olympus EM1 II camera and Olympus 60mm macro lens in Ikelite and Nauticam housings. With a full frame camera and 100mm lens at 1:1 magnification is around 2.8:1 with the Olympus 60mm macro at 1:1 magnification is around 3:1 or an image of about 5.8 mm on the long side. This would be a subject about the same size as a grain of rice. Even with a small sensor Camera DOF is still very shallow and you need to work quite close to the subject.

Field testing the Inon UCL-67

I used the UCL-67 M67 threaded directly to the macro ports for both systems used for this review. All of the images were shot at 1:1 first without the lens and then with the UCL-67 for a size comparison. The attached images are all full frame without any cropping.

As with all macro photography subject selection is critical for successful results. Because of the very shallow DOF choosing a subject that can be kept in a relatively flat plain is helpful. Many animals like small fish just won't tolerate the limited working distance (less than 5 cm) between the C/U lens and subject.

You should have a working knowledge of super macro when using these lenses because you can very easily damage a subject by getting to close. These lenses are near imposable to use in a strong current unless you can hide behind something.

I found the more static subjects like corals to be the best starting point when learning to use a lens with this amount of magnification. The Olympus EM1 II with the 60mm macro has extremely fast AF with excellent AF accuracy. I found that keeping the lens set to 1:1 using back focus and then just adding the Inon lens and "rocking" the camera to focus worked better than trying to AF for every image.

I used F/7.1 and F/16 for many images so that the differences in DOF could be accessed. After over ten hours of use underwater I have not found vignetting to be a problem from F/7.1 or greater. This lens is tack sharp and I did not see any chromatic aberration with high contrast subjects. When stacking the UCL-67 with the UCL-165 the distance between lens and subject is very narrow, I would estimate around 5mm.

Getting light from the strobes on the subject will dealing with such a small distance is difficult and at times I needed ISO-400 to get enough light for a proper exposure.

If you want to test your Super Macro skills contact your local Inon retailer and try out this impressive lens. The Inon UCL-67 M67 retails for around $375.00 in the US.

Phil Rudin

Don't settle for 2nd best

Film - No Filter No White Balance

Digital - No Filter Manual White Balance

Magic Filter Manual White Balance

Digital cameras have opened up new possibilities to underwater photographers. For available light photography manual white balance is an invaluable tool for restoring colours. But when you use it without a filter you are not making the most of the technique. You're doing all the hard work without reaping the full rewards. These three photos are all taken of the same wreck in the Red Sea. The left hand image was taken on slide film, which rendered the scene completely blue. The middle image is taken with a digital SLR without a filter, using manual white balance. The white balance has brought out some of the colour of the wreck, but it has also sucked all the blue out of the water behind the wreck, making it almost grey. The right hand image is taken with the same digital camera and lens, but this time using an original Magic Filter. The filter attenuates blue light meaning that the colours of the wreck are brought out and it stands out from the background water, which is recorded as an accurate blue.

www.magic-filters.com

Anders Nyberg

by Hergen Spalink

Sweden's Anders Nyberg has spent the last few years racking up the awards for his amazing underwater images, with four of his images in the finals for last year's prestigious Underwater Photographer of the Year competition alone. Anders shares with us his background and a selection of his favorite images.

Can you tell us a bit about your background, and how you got started taking underwater photos?

I have a passion for travel, diving and underwater photography. I live on the island of Gotland in the Baltic Sea and in addition to being a freelance photographer I also work as an environmental engineer.

My interest in photography began when my wife and I had just completed our first trip around-the-world in 2003. For that trip I had bought my first digital compact camera with an underwater housing, an Olympus C5050. On the very first trip with that camera I took an image that ended up on the front page of the dive magazine Diver and I think that was a really good start for me. I found out that I really enjoyed showing other divers and non-divers my pictures.

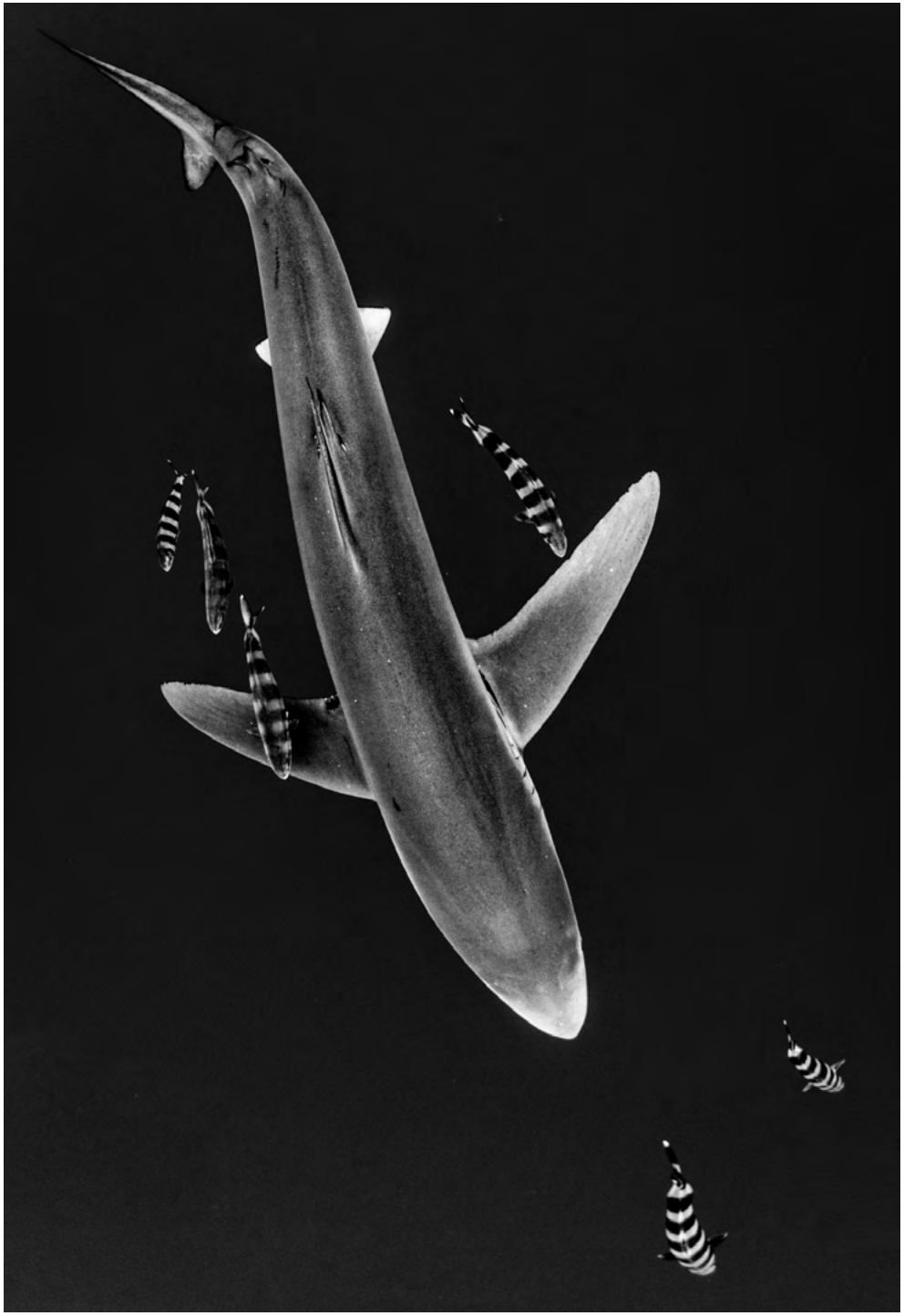
For me, underwater photography and scuba diving are forms of meditation, to relax from the stress of everyday life and work. When diving and shooting I am truly present, thinking only about the moment, really experiencing each unique interaction with the marine environment.

SS Hornstein was a German cargo steamer that ran aground and was wrecked on Salvo Reef, in the Baltic Sea on the 16th November 1905. I placed a remote strobe behind the wheel and my dive buddy Henrik Malm have primary torch and a video light so we created a more interesting picture

Salvo Reef, Baltic Sea, Sweden

Nikon D500, Tokina 10-17mm at 10mm, f/3,5, 1/15, ISO3200, Nauticam NA-D500 housing

Snorkeling with dolphins in the sunset, wanted to be fast in the water so I didn't use any strobes on my camera, set the ISO to Auto-ISO.
Nikon D800, Tokina 10-17 at 14mm, f/4.2, 1/400, ISO 1000, Hugyfot housing
Red Sea, Egypt



This picture was taken on a drift dive in the open ocean in bottomless blue water outside Faial, Azores (Portugal).
When shooting oceanic sharks near the surface, strobes can be a bit bulky and hard to use so I decided to go for available light and didn't use strobes. After the shoot I converted the picture to BW to get more dramatic and contrast in the story
Faial, Azores, Portugal
Nikon D500, Tokina 10-17 at 10mm, f/6.3, 1/200, ISO 320, Nauticam NA-D500 housing

Two male Stocky Anthias fighting, the where spinning around and around so I wanted to great an image that show this behavior so I adjust my shutter speed to 1/15 of a second so I could catch the movement
Tulamben, Bali, Indonesia.
Nikon D500, Nikon 105mm, f/36, 1/15, ISO 540, Nauticam NA-D500 housing

A snorkeler in the Silfra fissure, Thingvellir National Park, Iceland. The fissure is actually a crack between the North American and the Eurasian continents. The underwater visibility in the Silfra fissure is over 100 meters.
Silfra fissure, Thingvellir National Park, Iceland.
Nikon D500, Tokina 10-17 at 10mm, f/6.3, 1/160, ISO 320, Nauticam NA-D500 housing

I started diving in 1997 and have since been to such world class destinations as Fiji, Vanuatu, Australia, New Zealand, Indonesia, Malaysia, Thailand, Philippines, Malta, Iceland, South Korea, Norway and the Red Sea. Since my start I have over 1000 dives and I always have my camera with me underwater. I believe I was more of a casual picture taker in the beginning whereas today I always try to have more of a plan about what I want to shoot and how. My motivation comes from wanting to create unique images and not just take pictures.

What gear have you used in the past?

As I mentioned before, my first underwater camera system was an Olympus C5050 that I bought before my first around-the-world trip in 2003. Two years later I did my second around-the-world trip and I upgraded the camera to an Olympus C7070. My first DSLR came shortly thereafter and was a Nikon D200 in an Aquatica housing. After that I have moved on to a Nikon D7000, also in an Aquatica housing and a Nikon D800 in a Hugyfot housing before moving over to Nauticam.

What system are you using now?

Last year I changed my underwater system to the Nauticam NA-D500 housing for the Nikon D500 with a 45° viewfinder. Lenses I use are primarily the Tokina 10-17mm fisheye, Nikon 60mm AF-S macro, Nikon 105mm VR macro, and Sigma 17-70mm macro, with two Inon Z-240 strobes along with some remote strobe setups. For wide-angle I use the 8.5 Nauticam Acrylic Dome Port and for macro I use the Nauticam Macro Port 60.

What Do You Like About It?

I really like the Nauticam system, the ergonomics make it so easy to use in the water, especially with dry gloves in our Nordic waters here in Sweden. I am really impressed with what Nauticam has done in regards

Two Whip Coral Gobies on a whip coral against blue water with bokeh effect Tulamben, Bali, Indonesia.
Nikon D500, Nikon 105mm, f/16, 1/200, ISO 200, Nauticam NA-D500 housing

I played around with an aluminum background to create a bokeh background, Alor Archipelago, Indonesia.
Nikon D500, Nikon 60mm AF-S, f/5, 1/250, ISO 50, Nauticam NA-D500 housing and Inon Z-240 strobes

to the housing locking system, it's so easy to close and lock the housing and of course even easier to open. The same applies to the port locking system. All of this make this housing user friendly and I can changes lens and ports easily and quickly while still being sure that it's sealed with the integrated vacuum monitoring and leak detection. Together with the Nikon D500 camera the NA-D500 is a amazing piece of artwork and for me the perfect tool to create my underwater pictures.

Tell us a bit about the kinds of diving you do, favorite locations, etc

It's a very difficult question to answer because I love almost everything underwater, from the tiniest of critters to the biggest animals and wrecks. I don't believe I have yet to photograph my favorite scene. I've found so many beautiful and amazing things that it's hard to choose just one in particular. I also don't think I've been to my favorite location yet. For the last few years I have mostly been diving in Asia and so I am now trying to branch out to other destinations. Last year I went to Azores in the Atlantic Ocean and was blown away, the Azores is for sure one of my favorites and I am planning to go back there in September 2017. I will also say that the Baltic Sea is high on my favorites list because of all the wrecks.

Hergen Spalink

More About Anders:

www.worldoceanphoto.com

Filters in Underwater Archaeology

by Augusto Salgado

In underwater archaeology, unlike when we are doing underwater photography for pleasure, we just cannot go searching for a better spot or other subject to take a photo. Wrecks and artefacts lay where they are, and we are not supposed to move them from one place to another. So, we have to adopt our tools to achieve our aims.

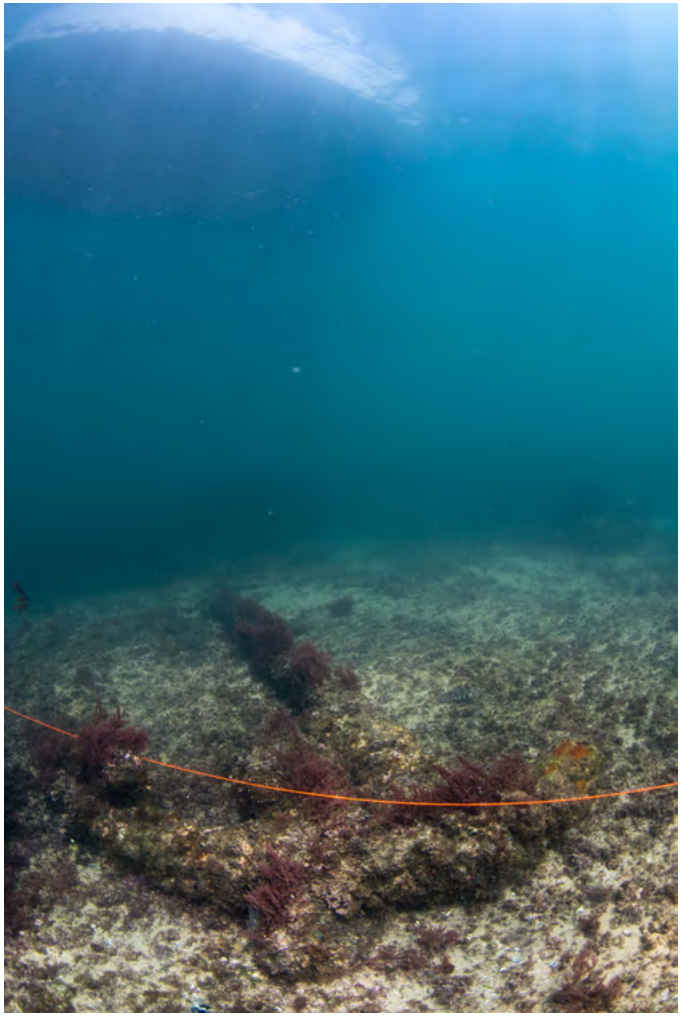
Even for those not directly linked to underwater archaeology, it is easy to understand that photography is a very important tool for this activity. The photography can be used for several reasons and to achieve different aims. Either we want to photograph an artefact in situ, or we want to "transport" the viewer to where we were doing our work. Nowadays, we can also use photography in order to obtain 3D images of the objects, from a coin to a full wreck.

A major part of the underwater heritage campaigns that I do, with the Portuguese Navy Research Centre, are conducted in shallow waters, at the entrance of the river Tagus, near Lisbon. As you can imagine, our working environment has very few similarities with the Red Sea's waters where I have attended two workshops with Alex Mustard. The conditions aren't the same, but we can use the same techniques.

The first problem we have is colours. Although we read that blue is the colour that stays after all the others have gone, where we conducted our campaigns, green is the "our" area colour. From sand to yellow sponges, all turns green just after 3 meters deep. How we can correct it? How can we avoid ending up with flat pictures?

Although most of our objects are not very deep, less than 10 meters deep, in our area water

Carlos Martins, team member with a bronze XVII century piece with lots of suspension. Nikon D300, Tokina 10-17 mm, Sealux Housing, one Inon Z240 Strobe on camera other on diver with TigerFish slave trigger. ISO 400 1/160th f14



Anchor and our boat. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, Magic Filter. ISO 400 1/200th f10

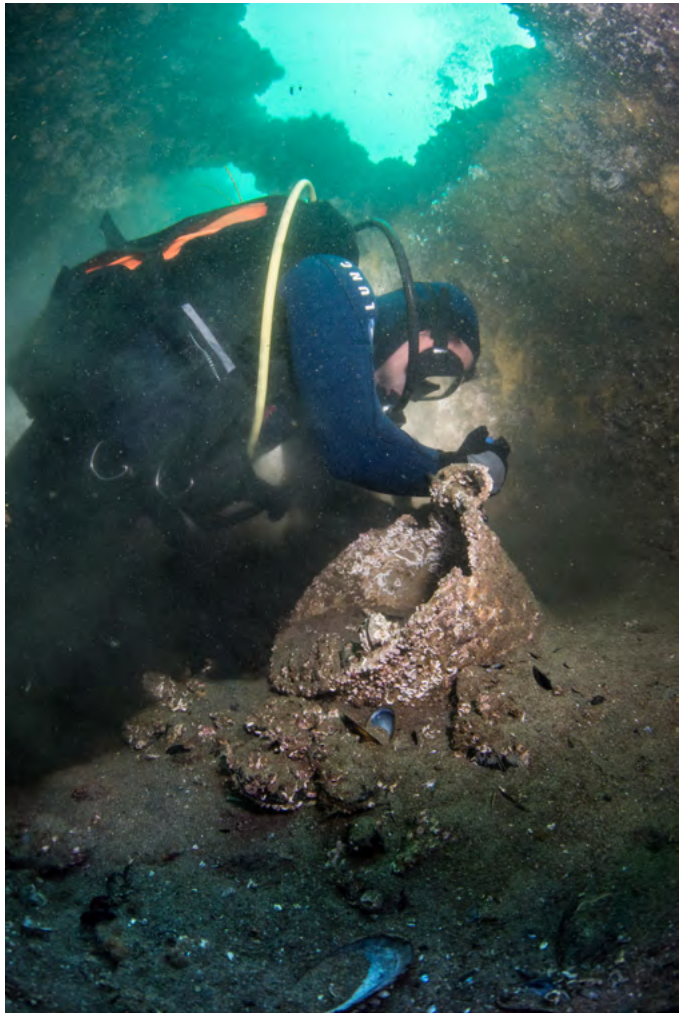
can be, many times, very dark. So, as all underwater photographers know, the first choice to return the colours of our photographs, is to use strobes.

The problem using strobes is all the suspension we get from diving at the mouth of the river Tagus, that causes enough backscatter per photograph to keep us busy for a long time… Solutions? Either we try to position our strobes in such a way that it will reduce the backscatter a bit, or we use slave-triggered strobes', even when not inside a wreck. Inside a wreck, the same techniques I used inside the SS Thistlegorm apply perfectly… The problem is our wrecks are much smaller, and when we try to pre-position your strobes, just breathing inside will cause suspension to fall to a point we are not even able to focus… Again, a slight deviation, and I placed the slave strobe on the archaeologist and take the pictures before all the sediment blocked my view.

Although I was getting the pictures I wanted, I felt I could try something different, mainly when I wanted to capture how our work was done. And, as we were working at so shallow depths, why not use Magic Filters, for green waters, of course.

I have never seen them been used in underwater archaeology and several people told me, for example, that filters cannot be used for 3D processing… But I decided to give it a try and soon my Magic Filters did arrive and I was ready to start a new season.

At the entrance of the river Tagus, we have two different underwater heritage realities. Near the north shore, we mainly have loose artefacts, like iron guns or iron anchors. In some places, we find the remains of ships, but all very scattered and broken up by the winter southerly storms. In this environment, the filters proved very useful, because



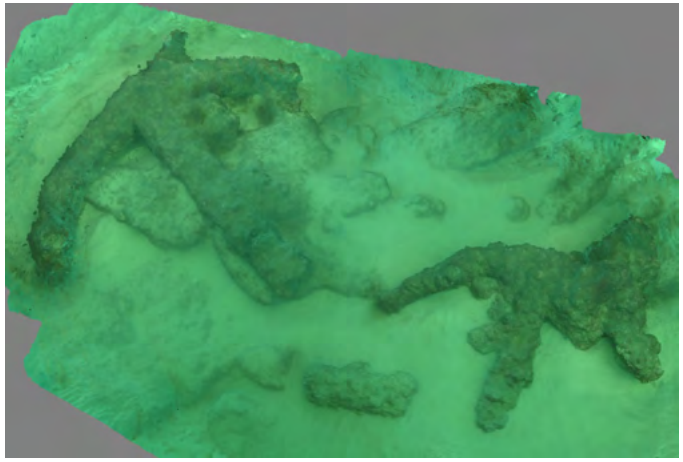
Team member, Jorge Freire, recovering artefact from Patrão Lopes. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, one Inon Z240 Strobe on camera other on diver with TigerFish slave trigger. ISO 400 1/100th f7,1

not only I didn't need to search for the artefacts carrying not only my housing but a pair of strobes, but also, I was able to capture the archaeologist doing is work, with colour and depth.

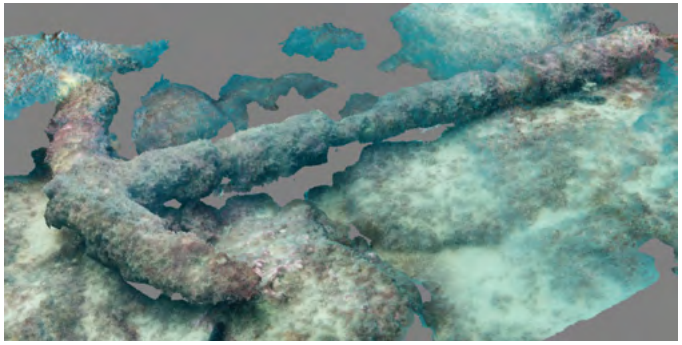
Stern of Patrão Lopes with team member Jorge Freire. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, Magic Filter. ISO 400 1/100th f8

In the middle of the mouth of the river Tagus, there is a lighthouse, placed on a round fortress. It marks the south part of the main entrance channel of the harbour. And, not that long ago, when I was

The Patrão Lopes and the barge. We can see the suspension, but I was able to get both wrecks in the picture. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, Magic Filter. ISO 400 1/50th f8



3D model of another anchor done by team member Tiago Dores withoput a Magic Filter. Canon G12. ISO aut, 1/100th f2,8



3D model of anchor done by team member Tiago Dores. Nikon D7100, Tokina 10-17 mm, Hugyfot Housing, Magic Filter. ISO 400

a junior lieutenant in the Portuguese Navy, there was a huge sand bank, with plants on top, that linked the lighthouse to the south shore. With the sand disappearing, a 70 meters long intact wreck, pop up showing all its splendour. And it wasn't just any wreck, it was one of the 72 German ships that Portugal seized in 1916, and made Germany declare war on Portugal. Further, until she was lost in 1936, she was "the" Portuguese Navy Rescue ship Patrão Lopes, doing all kind of rescue and salvage operations along the Portuguese coast.

Could I use the Magic filters here? The keel lays at a depth of 12 meters and the deck around 7 meters deep. Naturally, and as I said before, all the photographs I took inside the wreck I had to use strobes… the challenge was to try to capture the all wreck, or most of it, so non-divers could have the same view we have underwater. More complicated, was to try to get the two wrecks that lay side by side… Because on the starboard side of the Patrão Lope, lays the German barge that was responsible for her sinking in 1936, during a stormy night.

Last year, on the smallest tide, I decided to go with the Magic Filter. Lucky me, as we were surprised by the best visibility we had so far, although with some suspension. I felt I had done the right choice… I wasn't able to get the full ships, but I got the entire stern and I was able to get both wrecks in a single shot.

For me, the Magic Filters were approved for our field work, in our very "green" waters… but we wanted to try the filters for 3D imaging. And we were able to do it this year. Not me, because I confess I hate taking 400 pictures of an anchor, but another member or team did it, and the results we great, in our opinion.

We really think Magic Filters are also perfect for 3D imaging. When we compare the 3D result of a pair of anchors with pictures taken without any filter, and the 3D anchor done with Magic Filter, the results are quite different.

I've been doing underwater archaeology since 1996, and most of the times with a camera in my hand. Contrary to most underwater archaeology campaigns, we believe that our can and has benefit a lot with pictures of our work. They have to reach the general public and the those that can finance us the same way when we want to advertise a diving destination. Because, not only we need the funding, but we need the local people with our project. They will be the best guardians of our wrecks, and they will "give" us local knowledge that isn't available in any textbook. So, we need to be able to give talks to the general public, presenting not only our work, but the Underwater Cultural Heritage they "have" in their waters. And Magic Filters proved to be a great tool to achieve our aim.

Augusto Salgado

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 £22.

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

www.magic-filters.com

Conservation Photography in the Maldives

by Tom Burd

A fly-by of 6 huge mantas in Ari Atoll. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 14mm, 2x Sea and Sea YS-D1, ISO 500, f8, 1/250.

I'm sure at some point on a dive you've experienced a mask leak from grinning in wonder at a particular breath-taking spectacle… Perhaps as that mythical school of hammerheads glided serenely overhead, or when you first saw a cuttlefish cascading its hypnotic colours. These magical underwater moments are truly the reason we dive, and thankfully the oceans never cease to reveal to us new phenomena.

My first such moment happened in the Azores, as I marvelled at a huge oceanic manta ray leading a twisting ballet of mobulas under our boat, in a display of simple playfulness and curiosity. Their grace, intelligence and sheer majesty was utterly stunning, and I was instantly captivated by these incredible animals.

A few years down the line, I've been lucky enough to find myself researching them in the Maldives, on behalf of the British charity, Manta Trust.

Long known as one of the world's most reputable locations to encounter manta rays, the Maldives' 1192 coral islands attract over a million visitors each year, and it's not hard to see why. If the picturesque white sandy beaches and shallow turquoise lagoons weren't enough to entice you in, then the sheer wealth of colourful and diverse marine life on offer surely couldn't fail to do so.

As the manta ray tourism boomed, the Manta Trust founded the Maldivian Manta Ray Project in 2005. The goal was to monitor the local population of rays and gain insight into factors such as number of individuals, migration patterns, reproduction cycles and anthropogenic threats.

A team of researchers from the Trust are now dotted around the atolls, working in conjunction with local communities and resorts to collect data and educate about this large enigmatic. The global awareness of the project has been fundamental in helping to establish multiple Marine Protected Areas throughout the country, as well as in granting all ray species national protection in 2014. The latter was a huge success, hopefully ensuring a sustainable future for what is thought to be the world's largest population of reef manta rays (*Manta alfredi*), estimated between 5000-6000 individuals.

Reef mantas have a pretty hefty disk width

A manta feeding just beneath the surface. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 17mm, ISO 320, f13, 1/125.

Researchers diving down to obtain ID photos. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 13mm, ISO 125, f8, 1/125.

(the distance between both wing tips) of up to 5m, but this is nothing compared to their rarer and larger relatives, the oceanic manta rays (*Manta birostris*), which have been recorded a whopping 7m wide. That's not far off the length of a London bus!

In order to give you an idea of how little we actually know about these beauties, it was only in 2009 that the two species were declared distinct. In fact, whilst writing this article, new research has emerged supporting a complete taxonomic reshuffle of manta and mobula rays. Mobulas have always been thought of as the mantas' smaller cousins and are affectionately known as "mini mantas", but the recent study suggests that mantas are probably "massive mobulas" instead!

The fact that we still have so much to learn about one of the biggest fishes in the ocean is astonishing, and their survival in this rapidly changing world partly depends on us gaining a greater understanding of their lives.

The 26 atolls of the Maldives each roughly resemble an oval ring of islands and fringing reefs, resulting in a wide variety of dive sites. From shallow hard-coral pinnacles to immense caverns brimming over with sea fans and a plethora of tropical fishes, there is something for everyone here.

Some of the most exiting dives occur in the channels of the outer reefs, known as "Kandus". The daily ebb and flow of tides force enormous

quantities of water through these channels, creating powerful currents which are much loved by a wide variety of large marine life, such as grey-reef sharks, eagle rays and of course mantas.

Kandus are also often home to "cleaning stations" - built up sections of the reef which act as a car wash service for local marine life. Various fishes regularly visit these stations to have parasites removed from their bodies by a group of tiny fish known as cleaner wrasse. These little guys can't swim very far and rely on their parasitic food to be brought directly to them on a platter, with manta rays being some of their most reliable and scrumptious customers.

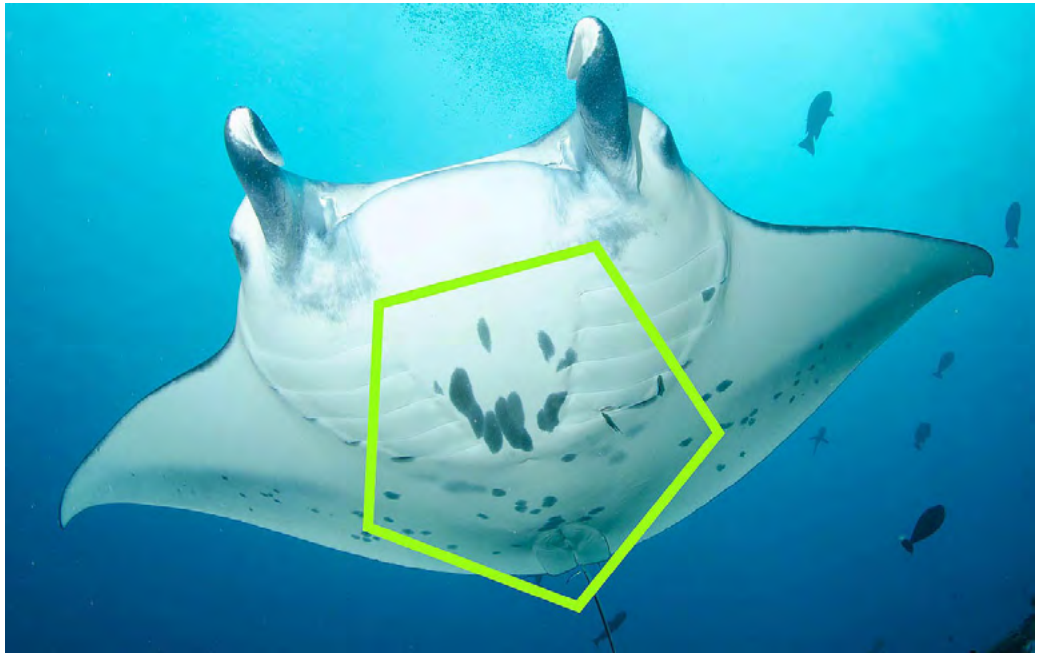
Cleaning station action normally has a distinctly British feel to it, with mantas queueing up in line, patiently waiting to be pampered! Aiming head into the current allows the mantas to hover effortlessly in position above the reef, with their huge mouths gaping wide open, signalling to the cleaner wrasse to get stuck in. Amazingly, these stations also seem to be crucial for wound healing processes, as mantas occasionally fall victim to attacks from large predators such as tiger sharks. These can leave huge sandwich-style bites of flesh missing from their pectoral fins, risking infection and reduced mobility. However, through regular removal of decaying matter by cleaner wrasse and some mind-blowing innate ability, manta rays can actually re-grow tissue to fill in these gaps and continue their lives unhindered.

The seasonal reliability of manta encounters at cleaning stations in the Maldives allows us to collect valuable information on such a large migratory species.

Underwater photography plays a key part in the research, as we need to keep track of which individual manta rays are seen. Thankfully each manta has a unique set of black spots covering their white underside, which act just like our fingerprints and allow them to be distinguished from one another. These patterns range from a single black dash to some pretty elaborate belly art, many of which are easily recognisable underwater.

Once we've got a photo we run it through Lightroom to be cropped to the desired area around the gills, white balanced and have the contrast boosted to make the spots stand out. It is then manually compared to similar mantas in the database catalogue, which currently stands over 4300 individuals strong! Excitingly, if the manta is nowhere to be found then it's added as a newbie and is named by the observer.

All possible information is logged, such as sex, stage of maturity, injuries and location of the sighting.



Just like our fingerprints, these spots are used to recognise each manta ray. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 15mm, 2x Sea and Sea YS-D1, ISO 500, f13, 1/180.

Over the course of time, multiple sightings of the same individual reveal its movements throughout the Maldives, effectively turning this technique into a low cost tracking system. Most importantly, anyone with even the simplest of cameras is able to participate in the research, creating an incredibly widespread and rewarding citizen science project.

Divers and snorkelers are encouraged to send in any ID photos of mantas, along with the location and date to IDtheManta@mantatrust.org. This allows for much greater geographical and spatial coverage, leading to important findings on migration patterns and habitat usage, which are key to ensuring effective protection for the species. We would also love to hear about mobula ray sightings, as we know even less about them than mantas.

When trying to take photos of mantas on a cleaning station, whether it be for ID shots or not, it's important to be aware that they are actually in the middle of a crucial part of their daily routine and that we can easily get in the way unintentionally. Good practice is to stay still at the edge of the station, carefully hovering over

Cleaning stations get pretty busy in rush hour. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 12mm, 1x Sea and Sea YS-D1, ISO 400, f9.5, 1/250.

Up to 5m wide, mantas are an impressive sight close-up. Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 10mm, ISO 160, f6.7, 1/180.

the reef and not venturing too close to where they are being cleaned. Mantas are curious and intelligent creatures, and will often come to investigate you and enjoy the jacuzzi effect of your bubbles overhead. I can guarantee you'll have a much more memorable encounter and get a better shot if you wait for the manta to make the first move.

Snorkelling with feeding manta rays is another unique experience to be had, which gives a completely different perspective on their lives, size and agility. For such large creatures, they actually feast upon a soupy mixture of some of the smallest animals in the oceans: zooplankton. The search for this concoction of fish eggs, larvae, and small crustaceans is the reason why mantas seasonally migrate in the Maldives.

Monsoonal winds drive surface currents through the atolls, drawing up nutrient-rich water from the deep surroundings. These nutrients pass to the leeward side of the atolls through shallow waters, creating blooms of microscopic algae which in turn feed tons of zooplankton. As the monsoon changes, the winds reverse and the blooms change location, with the mantas following shortly behind. You should take this into account when visiting, by generally heading to the Western edges from November to March and the Eastern edges from April to October. Get your timing right time and with a bit of luck you'll be richly rewarded, as a manta ray barrel-rolling for food right in front of you is an unforgettable sight.

This spectacle happens just beneath the surface, where the plankton accumulates, providing perfect rippling light for photography and allowing for some cracking split-shots on a flat day. Again, the key to getting the best images is to remain calm in the water. Stop swimming and let the mantas glide around you, as chasing them only results in tail shots which are swiftly deleted!

Whilst snorkelling in February we were lucky enough to witness 3 courtship events, called mating trains. This involves a female manta, who's generally larger than the males, releasing a scent trail into the water to attract the local guys. Once she's gained some interest she'll start to lead a high speed, dramatic procession along the reef, often rolling and even jumping clean from the water.

Checking out the visitors overhead! Nikon D7000, Nauticam Housing, Tokina 10-17mm Fisheye at 13mm, 1x Sea and Sea YS-D1, ISO 250, f11, 1/90.

As the males eagerly try to stay as close as possible to the lady, the strain of this ordeal becomes too much for most and after 6-7 hours only a single male will be left standing! For mating to occur, he must then bite down upon her left pectoral fin to gain a good grip, whilst beating his fins to keep them buoyant in the water. A year later, a single manta pup is born measuring a sizeable 1.5-2m wide and needing no parental care. The birthing process itself has never actually been witnessed in the wild, so keep your eyes peeled, as photographic evidence of this would be hugely exciting for manta ray researchers!

Using photography to study and help protect such incredible animals has been a dream come true for me, as well as a reminder that as underwater photographers we can document important changes occurring beneath the waves. In addition, being able to paint a picture for non-divers of the incredible beauty underwater is a crucial part of conservation efforts. As our community of underwater artists blossoms, it's highly encouraging to see so many people putting their talents to good use and I would urge anyone to channel their passions into worthy causes such as these.

Tom Burd
www.tomburd.co.uk

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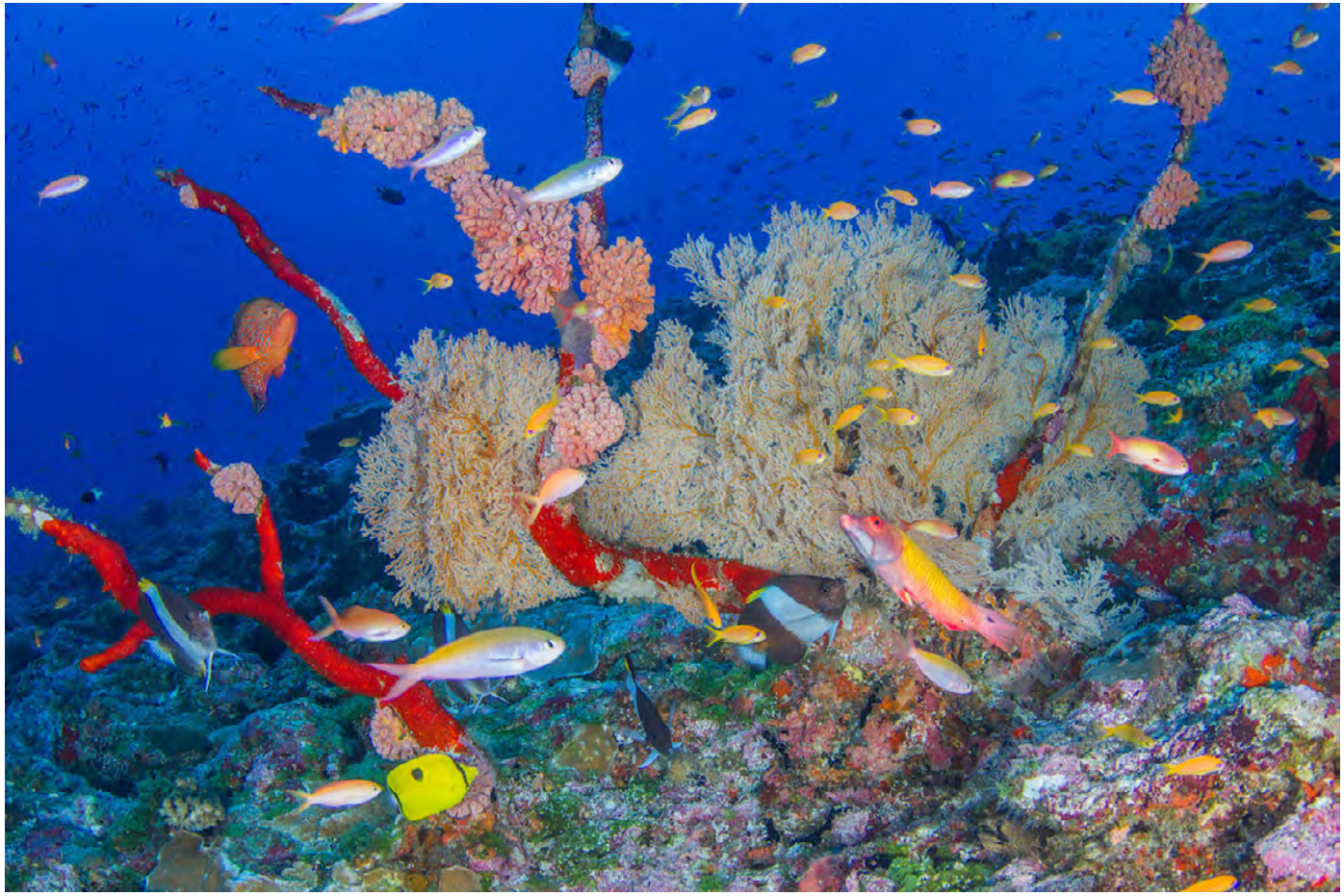
A tale of two atolls

by Christophe Mason-Parker

One hour and 250 miles after leaving Mahé, the largest and most populated island within the Seychelles archipelago, the Beechcraft 1900 began its descent towards the twin oceanic atolls of Alphonse and St. François. Out of the right side of the aircraft's windows, a tiny green spec surrounded by turquoise blue water slowly came into view. The arrowhead-shaped island of Alphonse covers an area of 1.71km2 and is bisected down the middle by a narrow runway. Extensive reef flats and a vast lagoon, which give the atoll a total area of 19km2, surround it. Home to the Alphonse Island Resort, the island, which is covered in thick forest and coconut palms, is the archetypal tropical paradise.

The Alphonse Island Resort has built a reputation as one of the world's premiere fly-fishing destinations. However, in recent years the management has added diving to its growing list of activities with the opening of a fully equipped PADI dive centre. I was visiting Alphonse to shoot images for an upcoming book and had one week to cram in as much diving as possible. Luckily with over thirty dive sites identified so far, and more being discovered all the time, I would have plenty to choose from.

I stepped onto the runway and into a waiting golf buggy, and made the short journey to one of the 21 beach bungalows that overlook one of the most perfect palm fringed beaches I have ever seen. I quickly proceeded to set up my camera equipment before accompanying a group of guests on a boat trip



Alphonse atoll supports a huge diversity of reef fish species.
Canon 7D, Tokina 10-17mm Fisheye
Ikelite Housing, 2 x DS160 Ikelite Strobes
1/200th, f/8, ISO 200

Guests take time out for lunch on the reef flats of St. François atoll.
Canon 7D, Canon 10-18mm lens
1/100th, f/16, ISO 200

Large schools of snapper, fusiliers and trevally all come together at the 'Arcade'. Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes 1/125th, f/8, ISO 160

A pair of young scalloped hammerhead sharks cruise above a coral reef. Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes 1/160th, f/8, ISO 160

to Bijoutier Island, a tiny spec of sand within the St. François atoll. Though I was predominantly here for the diving, I did not want to miss out on the opportunity to see some of the atolls' other wildlife. Bijoutier is a picture postcard sandy cay, covered in a few coconut palms and home to numerous grey herons. The herons share this tiny spec of sand with greater crested terns, which frequently gather on the island's beaches.

The next morning I arrived at the dive centre early, keen to see what Alphonse's coral reefs had to offer. Aside from the house reef, which is predominantly used for training dives, all diving is undertaken by boat. Dive sites are located both within the lagoons and on the outer reefs of the Alphonse and St. François atolls, and conditions fluctuate depending on the tides. Distance to the dive sites varies between 5 and 30 minutes. For the first dive we headed to a site called Hotel, located on the east coast of Alphonse Island. As we skimmed along the surface of the lagoon and through the pass in the reef, the turbid shallow water changed to a brilliant blue. Confident that he had found the correct location, the boat captain brought the catamaran to a halt and we back rolled into the warm, clear Indian Ocean.

Seychelles was badly affected by the global coral bleaching event of 2016, but Alphonse was spared the worst of the bleaching and many of the island's reefs remain healthy and vibrant. The top of the reef wall at Hotel is spectacular and is covered in a variety of hard corals. The first thing that strikes me is the number of green turtles resting amongst the coral bommies. I stop counting when I reach double figures and we slowly begin to make our way down the reef slope.

The walls on the outer reefs of Alphonse and St. François are dominated by huge gorgonians up to 3m in height. They are surrounded by thousands of brightly coloured anthias, which provide a spectacle of colour against the endless blue. We navigated our way through the forest of gorgonians as a pair of spotted eagle rays glided along the top of the wall. Later in the dive, a school of redtooth triggerfish streamed up

A diver approaches one of the many sea fans near the entrance to the Alphonse atoll.
Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes
1/160th, f/8, ISO 200

Green turtles are common around the atolls and are encountered on most dives.
Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes
1/250th, f/8, ISO 160

from below, while a large grouper cautiously eyed our movements from his lair. As first dives go, this was up there with some of the best, and while there were plenty of subjects to photograph, I had been so preoccupied with all that was going on around me, that by the time we surfaced after 65 minutes, I had only fired off a couple of shots.

That afternoon I resisted the temptation to dive again, in favour of joining another nature tour, this time to nearby St. François Island. The island, together with Bijoutier, is one of two found within the St. François atoll. It is an important stopping off point for migratory birds, including crab plovers and Saunders terns. The island's beaches are home to thousands of hermit crabs, which spend much of their time climbing the coastal vegetation, while a colony of frigate birds have taken up residence within the abundant casuarina trees.

The next day we were back in the water early, with a three-dive day planned ahead of us. The first of which was Galawa, on the northern tip of Alphonse Island. The visibility again stretched beyond 30m, as it did for the duration of my stay. Highlights of this dive included large schools of bluelined and paddletail snappers forming tight balls on the reef, more green turtles and a whitetip reef shark. Our second dive took us to the St. Francois atoll and a wall dive off Bijoutier Island. A nurse shark swam lazily amongst the sea fans as we slowly drifted along the top of the wall in the gentle current. Every crevice in the wall appeared to be home to a moray eel, the majority of which had accompanying cleaner shrimp. Other macro subjects

A school of bluefin trevally hunt juvenile fusiliers.
Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes
1/160th, f/9, ISO 200

Sabre squirrelfish (Sargocentron spiniferum) are easily approached and make great photographic subjects.
Canon 7D, Tokina 10-17mm Fisheye. Ikelite Housing, 2 x DS160 Ikelite Strobes
1/200th, f/8, ISO 160

included a male ribbon eel and several species of scorpionfish. For the final dive it was back to Alphonse Island and the dive site Bluewater Stop, where we were treated to the sight of hunting bluefin trevally and a school of barracuda hanging motionless in the blue.

On day three we visited a dive site known as Arcade, situated to the northeast of Alphonse Island. The coral cover was incredible and thousands of yellow snapper schooled just above the reef. Green turtles were again plentiful, while giant sweetlips and black grouper appeared to completely ignore our presence. Twenty minutes into the dive, as we were making our way along the top of the reef wall, a pair of young scalloped hammerheads swam directly towards us before switching direction and disappearing from view. Although sharks were not a particularly common sight on this trip, Alphonse does offer the opportunity to see a number of species and in one week we encountered whitetips, nurse sharks, silvertips, lemon sharks and the pair of hammerheads. There is also the opportunity to see reef mantas, and while I was there at the wrong time of year, during certain months encounters are fairly reliable.

Without a doubt the highlight of the entire week took place on day six, when we made a high-speed drift dive across three dive sites on the outer wall of the St. François atoll. The current was pumping as we descended quickly to 25m and approached the wall, surrounded by tens of thousands of juvenile fusiliers. An endless stream of bluefin trevally accompanied by rainbow runners and bohar snapper appeared out of the blue, before joining our group, which was being propelled along by the current above the reef. Then responding to some invisible cue, our companions split in every direction attacking the fusiliers in a scene of complete chaos. The hunt lasted a few minutes and then almost as quickly as it had started it was over and the mixed school of hunters disappeared.

Over the entire week I completed a dozen dives, without visiting the

All of the resort's bungalows and suites face onto a perfect white sand beach. Canon 7D, Canon 10-18mm lens 1/100th, f/14, ISO 250

same dive site twice. As the Alphonse Island Resort boasts the only dive centre for hundreds of kilometres, we always had the reef to ourselves and our dive group was never larger than four guests.

The dive centre is currently in the process of upgrading its facilities to cater for underwater photographers. Images from the day's dives can be shown on a large screen in the dive centre and plans are in place to create a set-up area for camera equipment.

Alphonse Island Resort is the perfect location for those looking for frontier diving accessed from a luxury base. New dive sites are continuously being added to their roster and there is even talk of organizing future trips to the legendry Astove atoll. For those divers wanting a remote getaway with incredible diving, all within easy reach of Europe, Alphonse Island has got it covered.

Christophe Mason-Parker
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MCZ

The marine life of Newquay and the Gannel Marine Conservation Zone

by Andrew Ball & Tom Daguerre

In 2009 the UK Government passed The Marine and Coastal Access Act 2009. This enabled Marine Conservation Zones(MCZs) to be designated anywhere in English and Welsh territorial and UK offshore waters. Lundy Island, a former Marine Nature Reserve in the Bristol Channel, became the UK's first MCZ in January 2010.

In 2013 twenty-seven MCZs were designated around the English Coast, and in 2016 a further 23 were put in place. In total, these 50 MCZs protect an area equal to 7,886sq miles, around the same size of Wales. Next year we will see a third assessment phase, hopefully designating more MCZs across the UK.

But what exactly do MCZs do? MCZs are designated to protect specific features, either habitats or species, that are unique to a given area. These features have an inherent value to biodiversity, making it vital they have an adequate level of protection. The conservation objective for MCZs is to use management approaches to maintain these protected features, or if damaged, help them to recover. Management decisions are on a site-by-site basis, where activities, such as fishing or construction, may be restricted or forbidden within the MCZ depending on the sensitivity of the protected features to these activities.

Protecting these areas is not an easy task and is an ongoing process. A vital step in protection is raising awareness. How can we educate the wider public as to what is happening to our oceans on a basic level? How can we make people aware of the rich variety of life in our seas?

Cornwall based community interest company (C.I.C) Hydro Motion Media has embarked upon a journey to tackle these issues. Documenting marine life through film and photography, the company raises awareness of the amazing diversity that exists in Cornwall and across the UK.

The company provide their services on a voluntary or cost basis to promote marine conservation and educate the wider community about the marine environment. Working from this ethos has helped Hydro Motion Media become consultants for

the Royal Society of Wildlife Trusts and Natural England, as well as working closely with multiple local conservation groups. They have produced over 15 different films on UK marine life that are playing in education centres around the country and are available free online.

Hydro Motion Media's biggest project to date is their new film "'MCZ' The marine life of Newquay and the Gannel Marine Conservation Zone". The film will explore the different habitats of the MCZ, from the offshore reefs home to corals and anemones to the humble rockpool. It will reveal species never before captured on film, examining the fascinating lives of these hidden creatures, and illustrate the amazing diversity that exists in our oceans to justify why we must protect them.

Hydro Motion Media ran a crowdfunder campaign to raise the money to make this film, they were also awarded a small grant from seachangers.org. In keeping with their community investment commitment as a registered C.I.C, the documentary will be provided as a free resource to raise awareness of marine life across the UK. It will be screened at schools and colleges, film festivals and other marine conservation events to show the importance of protecting our oceans on a local and global scale.

Amongst the protected features of Newquay and Gannel MCZ is the rare Giant goby Gobius cobitis. As well as being Britain's largest goby, growing up to 27cm, it is also protected under the Wildlife and Countryside Act 1981. Within the Newquay and the Gannel MCZ there exists a protective refuge for this species in a network of rockpools. However, this refuge sits next to one of the UK's busiest beaches. The film will look at the comparison between man and fish to illustrate

The giant goby has a huge head and mouth, it is a top predator in the rockpool. Canon G16 with Fantasea housing, 2 x Light & Motion Sidekick Duo f/2.8 1/125 ISO 80

the fragility of nature and mankind's increasing impeachment into wild spaces.

Another target species for the film will be the pink sea fan Eucinella verrucosa. For those who haven't had the pleasure of diving on pink sea fan reefs in the UK, well known to divers who have dived the Cornwall Manacles MCZ, it is only on closer inspection that you discover something incredible. Its branches host three separate invertebrates: the sea fan false cowrie Simnia hiscocki, the sea fan anemone Amphianthus dohrnii, and the nudibranch Tritonia nilsohdneri. All three species can be found living on these fans, and if you're lucky enough to come across it, sometimes all together simultaneously. They are all dependent on the sea fan for their existence, illustrating how important a single species can be in maintaining biodiversity.

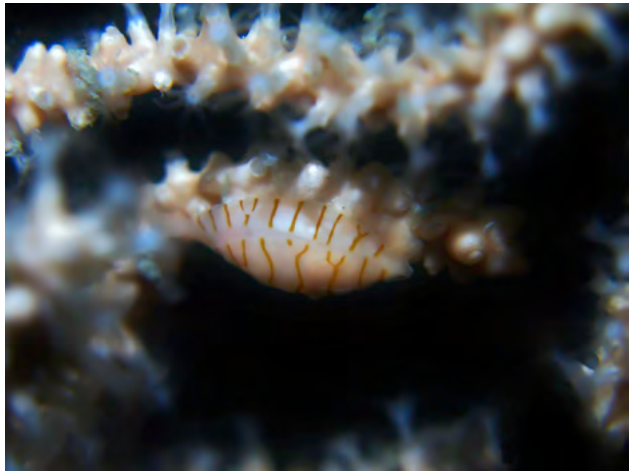
The Pink Sea Fan is a UK BAP priority

The pink sea fan anemone . Canon G16 with Fantasea housing, INON UCL-165 x 2 stacked, 2 x Light & Motion Sidekick Duo f/2.8 1/320 ISO 500

species of principal importance for the conservation of biodiversity under the Natural Environment and Rural Communities Act 2006. Furthermore, it is a nationally scarce species, protected under Schedule 5 of the Wildlife and Countryside Act 1981 (protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part) and listed as globally vulnerable on the IUCN Red List.

Despite its biological importance and

The pink sea fan False Cowrie Canon G16 with Fantasea housing, INON UCL-165 x 2 stacked, 2 x Light & Motion Sidekick Duo f/2.8 1/320 ISO 500



protective legislation, pink sea fan habitat is very vulnerable, especially to netting from fishing boats . Amazingly pink sea fan reefs have been recorded just outside the boundary of the Newquay and Gannel MCZ. The film will raise awareness of this fact and add weight to the case to extend the boundary lines to include these ecosystems.

Filming for the documentary will include the use of both modern and innovative techniques. Super slow mo, time-lapse and 4k will be used to open the window on a world beneath the waves not seen before. Specially developed macro videography will expose the most intricate detail of even the very tiniest inhabitant of the MCZ. The film has focus on the lesser known inhabitants of the Cornish coast, giving a unique view of the sub marine.

As underwater photographers, we take beautiful images of the life in the oceans. Imagery is an immensely powerful tool, it can change the way we think and can be used to inspire people to respect and protect the oceans. Through "MCZ : The marine life of Newquay and the Gannel Marine Conservation Zone" we hope to help achieve this.

If you want to follow our progress on the film, as well as our other work, follow our Facebook page 'Hydro Motion Media C.I.C' at https://www.facebook.com/HydroMotionMedia/. Alternatively, if you want to get in touch you can send us an email at

hydromotionmedia@hotmail.com

Andrew Ball
& Tom Daguerre

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DIVE PHOTO GUIDE
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Saint Pierre, Martinique

by Jean Michel Machefert

Saint Pierre is a small city with around 4300 inhabitants located on the north west (Caribbean) coast of the Martinique island at 30 km from Fort de France (with daily flights from/to Paris).

Even if this is easy to travel to Saint Pierre coming from Europe or from North America (there are also some flights from the US to Fort de France) here you will not find holiday resorts with huge swimming pools and hardly a hotel with a tropical garden along a white sandy beach or row of restaurants along the beaches as you could imagine when you think about tropical destinations. Here you can find usual accommodation, some restaurants and of course some (4 to 5) small but well equipped and highly professional diving clubs where nitrox, trimix and rebreathers are welcome.

So, why coming here and not in the south of Martinique with all the resorts and tropical facilities (as soon as you are in Martinique both can be visited of course. The island is not so big)? Let me first briefly tell you the history of Saint Pierre.

In 1626 Pierre Beslain d'Esnambuc landed with 100 soldiers in the bay of Saint Pierre, near the river Roxelane and built here the first settlement. The bay of Saint Pierre is widely open on the west side without any protection in case of hurricanes (from July to October), but it has the huge advantage to provide big depths close to the shore (50m deep at few hundreds of meters from the beach almost everywhere!). So then this was very easy to build here a port where big vessels coming from Europe or America can be unloaded and loaded without too much infrastructure.

As a consequence Saint Pierre became rapidly a very rich city and in 1902 around 26000 inhabitants lived in Saint Pierre. At that period Saint Pierre was named the "petit Paris des

Postcard of Saint Pierre as it was before 1902, with the ships in the bay (collection JM Machefert), Lumix DMC FX 07, 10mm, 1/80, f2.6, ISO 250

Snorkeling over a huge anchor near the beach Nikon D2x, housing Aquatica, Tokina 10 - 17mm at 10mm, 1/ 100, f 11 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and ¼ power

Antilles“(little Paris of the West Indies). The city had a lot of monuments, huge and rich stone houses and was equipped with telephone, electricity. There was also several hospitals and even a theater with 800 seats built in 1786 on the model of the theater of Bordeaux. In the port at the season without hurricanes, always more than fifteen 3 masts where constantly anchored here. They were coming from Europe with consuming goods, from the United States of America with beefs and horses, from South America with woods and from Saint Pierre et Miquelon with cod. Before the XIX century slaves from Africa also landed in Saint Pierre for working mainly in the sugar cane plantations. After unloading the ships were then loaded with the local products (sugar, coffee, and mainly rum). 16 rum distilleries were registered in Saint Pierre in 1900 and some of them produced daily up to 10000 l of rum.

But, Saint Pierre forget that it was built on a volcano named “la Montagne pelée” and even if the activity of the volcano seemed to be weak for centuries, the Montagne pelée was still an active volcano.

In April 1902 some fumes are shown on the mountain and there was a sulfur smell in the air. Then some earthquakes and some columns of dust are observed. The rivers on the volcano are flooded and on May 2nd 1902 a mix of ash fall and water rained on Saint Pierre. On May 4th 1902 a 10 m high flow of mud came down from the Montagne pelée and destroyed the sugar mill Guérin killing 25 persons. On May 7th in order to reassure the population the mayor created a fully incompetent investigative commission publishing that there is no more risk to live now in Saint Pierre than in Napoli and that everything will be quiet as usual in

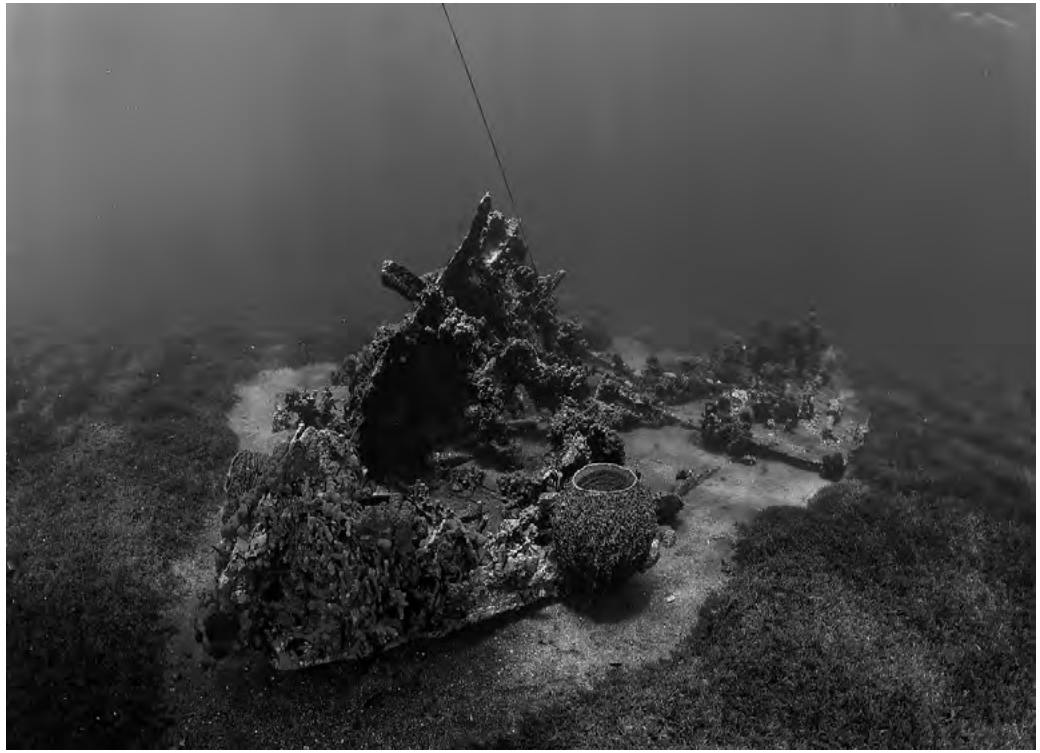
Huge barrel sponges near a solidified lava flow. Nikon D2x, housing Aquatica, Tokina 10 - 17mm at 10mm, 1/ 250, f 9 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and full power.

Typical view of the life on the rocky blocks in Saint Pierre. Nikon D2x, housing Aquatica, Tokina 10 - 17mm at 10mm, 1/ 200, f 10 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and full power.

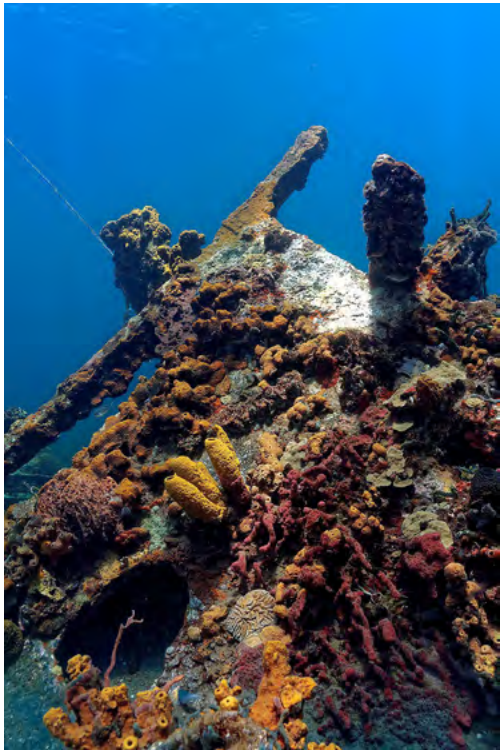
few days. (The population needed to be present in Saint Pierre on May 11th because of elections and the result was undecided between the 2 candidates. For political reasons the population had to be convinced to stay in Saint Pierre.). On May 8th at 8h50, the volcano exploded and witnesses reported seeing a flash of light followed by the sound of a large explosion and a cloud of hot ashes (1100°C when leaving the summit and around 200°C after 6km) moving towards Saint Pierre at a speed from

50 to 150m/s blasting and burning everything on land and off shore. After few minutes 22300 peoples were killed (for comparison, “only” 3000 peoples were killed in Pompeii in 79 AD), the city destroyed and the 17 (estimated from a picture taken the 7th of May) big ships anchored in the port were destroyed and for sure more than one hundred of smaller boats were also destroyed. Since 1902 Saint Pierre never recovered the splendor of the past even if now the Montagne pelée is surveyed by a laboratory very well equipped and with fully competent scientists ready to forecast any new eruption.

Now because of this cataclysm diving in Saint Pierre is amazing. The flows of materials coming out of the volcano built canyons, underwater cliffs and rocky blocks supporting all the variety of the tropical fauna and flora of the Caribbean Sea. Near the surface and down to 20m life is everywhere with a lot of huge barrel sponges, corals, spiny lobster, turtles and of course plenty of colorful fishes. By going deeper, the density of life decreases but the rocky sceneries take place creating a wild mineral sleeping beauty. Because of the deep slope off shore the diving sites (at reasonable depth for divers) are very close to the shore and here there is no need to spend too much time traveling on the boats to join the diving sites.



General view of the wreck of the Amelie, Nikon D2x, housing Aquatica, Tokina 10 - 17mm at 10mm, 1/ 60, f 11 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and full power



Wreck of the Amelie Nikon D2x, housing Aquatica, Sigma 17 - 70mm at 17mm, 1/ 30, f 13 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and full power

Almost all the sites could be explored from shore but this is by far more comfortable and secure to go there with a diving club knowing the right locations and ensuring the safety of the divers.

And of course the wrecks from May 8th 1902. Most of the wrecks were identified (with some uncertainty for some wrecks) from 1974 by a local diver and photographer working also time to time with the team of JY Cousteau on the Calypso: Michel Météry. JY Cousteau also dived in Saint Pierre in 1979 exploring the deep wreck (80m) of the Tamaya (steel sailboat with a double deck, 52,8m long, built in 1862 in Liverpool and owned by Mr. Rozier in Nantes (France)) and also the deeper places of the bay down to 300m (only at 400m from the shore line!) with the diving saucer SP350.

Now around 12 wrecks can be dived in the bay of Saint Pierre, and some are still to be discovered among them the Grappler (big cable ship repairing phone cables in the north of Saint Pierre the 8th of May).

The most famous wreck is the Roraima. The Roraima was 120m long steel British steamer built in 1883 by the shipyards Aitken and Maud in Glasgow and owned by the Quebec steamship company. In the morning of the 8th of May 1902 the Roraima was anchored in the bay

Snorkeling over a cask (full of rum?) near the beach Nikon D2x, housing Aquatica, Tokina 10 - 17mm at 10mm, 1/ 100, f 10 , ISO 200 , 2 strobes nikon Sb 910, Patima housings, ½ and ¼ power

of Saint Pierre and loaded with flammable goods (wood, oil, coal…). When reached by the blast she burnt for 3 days before sinking on depths between 40m (bow) and 55m (stern). This huge wreck is really amazing and full of life with a very big barrel sponge growing on the bow and almost everywhere "white hairs" (black sea whips (stichopathes) and other kinds of black corals (antipathes)) and so in 1979 JY Cousteau called her "the wreck with white hairs". Several dives have to be done to explore it and for sure every time the experience will be fascinating. The only drawback is the long deco stops in the company of triggerfishes we have to pay for the visit…

One other interesting wreck and may be the best location for underwater photographers is the wreck of the "Amelie" just in front of the beach called "Le Raisinier". The Amélie was a steel 3 masts ship built by the Dubigeon shipyard in Nantes near 1890. She was approximately 50m long and transporting goods between France and the West Indies. She arrived in Saint Pierre in April 1902 and after an injury on the hull she was moved by the steamer Diamant to a small bay with shallow water (Anse Turin) in the south of Saint Pierre for repairing. She was probably damaged and sunk by the blasts from the Montagne pelée. Now she is fully scattered (probably among many other smaller boats) on a less than 10m deep diving site fully covered with yellow and red sponges with plenty of tropical fishes and of course turtles, cuttlefishes... This is a perfect colorful aquarium for underwater photographers with always some porcupine fish to discover under a plate of steel. This is exactly the right place to spend hours underwater at looking and photographing the numerous possible subjects from the smallest shrimp with extra macro lens to the wreck sceneries with wide angle with almost no time limit in less than 10m deep water.

The other usual visited wrecks are, the 3 masts "Biscaye", 42 m long, coming from Saint Pierre et Miquelon with cods (Laying at a depth of 34 m this wreck is well preserved), the steamer "Diamant", 26m long, was transporting passengers and goods between Fort de France and Saint Pierre exploded (explosion of her boiler) when the blast from the volcano reached her (now she lays at 30m deep), the sailboat "Teresa lo Vico" (the name have to be confirmed) at a depth of 34m and also several unknown sailboats. All these wreck are inhabited by a lot of tropical fishes.

Last but not the least even by snorkeling at 50 m from the beach in shallow water everywhere debris from the former life in Saint Pierre as mooring chains or anchors used for mooring and even casks (still full of rum?) or parts from sunken ships can be seen.

So, what else when you have the chance to dive in Saint Pierre? Only one idea: to come back as soon as possible for more dives.

Jean Michel Machefert

Jean Michel began to dive in caves, lakes and the oceans in 1987. He started underwater photography in 1992 using a Nikonos IV. After shooting many years with a Nikon D70 he now uses a Nikon D2x in an Aquatica housing. Pictures and some technical tips are presented on his website:

www.jmfrog.com

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Marine Parks

A Question of Balance

by Attila Kaszo

I have been travelling for some months and just got around to reading all the back issues of UWP mag. I noticed an advertisement by Sea Shepherd (an organisation I broadly support) opposing what appears to be marine zoos and aquariums but the caption at the bottom of the add, quote..”Captivity Kills, Stop Supporting Marine Parks” infers something quite different in my part of the world.

While the intent (I think) is aimed at zoos and aquariums, the slogan clearly is not and in my view is misleading and misrepresents marine conservation ethos.

I am unashamedly a strong advocate of Marine Parks, which since their establishment in Australia have clearly demonstrated their viability and ecological worth, so I have taken this opportunity to provide a glimpse into the establishment of a Marine Park and how it sits with local government and the community alike.

In the case of Jervis Bay Marine Park, situated on the east coast of Australia about 200km south of Sydney, the concept of a marine park was foreign and completely opposed by local government officials pre1998.

The opposition was aggressive, targeted and fuelled by the local media who chose not to be independent but rather embrace the rhetoric. The overall objection was that the formation of a park would severely inhibit recreational and commercial fishing and boating activities within the bay jeopardising incomes and tourism.

To put the whole thing into précis perspective, the RAN were

Jervis Bay in all its glory viewed from Hare Bay looking north. Clearly visible is the vast meadows of Posidonia and Zostera seagrass vital for juvenile fish fauna habitat and the overall health of Jervis Bay.

About 35m down on the SE side of Bowen Island is a beautiful garden display of Sea Whips and Ascidians which I first dived in the 1970’s. During the year when the nutrient rich currents prevail, anemones attach to the stems of the Whips providing one of the most beautiful marine displays in the Park.

Grey Nurse Shark (Carcharias taurus) is making a comeback in Jervis Bay. Through divers anecdotal sightings it appears juvenile female sharks seem more predominant than males. Adult species have also been sighted more often in the past two seasons, which appear to indicate that the species population is becoming more established and permanent, although aggregation sites have yet to be scientifically documented.

This picture was taken at about 45m on a reef know as "Stony Creek" during the early 1980's before Jervis Bay was declared a Marine Park. Infrequently dived due to its depth and varied currents, it was however, heavily fished to a point where a large proportion reef dwelling fish were decimated. Since the establishment of the Marine Park the region has regenerated to a healthy level where it supports a wide diversity of species.

planning on decentralising and moving an armaments depot from Sydney to Jervis Bay because the region already supported a Naval base (HMAS Creswell) in form of a naval college and a naval air base near Nowra. Local government saw this move as economically beneficial to the region through job creation and upgraded infrastructure plans and as a consequence lobbied the Federal Government to support the move.

The diving community and community at large had the opposite view and saw large scale encroachment by the military as an erosion of their unique landscape, seascape and in general, their lifestyle and public space.

And so began a community upwelling, the likes only matched by the Franklin Dam protests of the early 80's. The blueprint for the movement began with seven conservationists, me being one. It quickly turned into a national movement finally resolved in favour of the community. Jervis Bay Marine Park was born in 1998 and in 2002 the first zoning plan was drawn up, an area of 210 square km with about 100km of coastline, configuring the park as a multi use space with emphasis on protected areas and habitat zones. A government elected Advisory Board was set up with complete Stakeholder representation and the elected Chairperson with a direct line of communication to the Environment Minister.

Up until this point, Jervis Bay had been severely impacted by fishers from the recreational groups to commercial harvesters who not only took as much as they were able, but dredged scallops indiscriminately destroying not only habitat but virtually everything that was trawled up as by-catch. The result was so

devastating that full recovery in those areas has still not occurred to this day.

I first dived Jervis Bay in 1970 and since then I can say there have been many changes to the area. Grey Nurse sharks once abundant, virtually vanished along with many species of reef dwelling fish fauna and crustaceans. Seagrass meadows were ripped to shreds by outboard propellers, rock shelves supporting shellfish were decimated, and riparian zones were trampled and defoliated. However, once the park was created protections were put in place, and a gradual recovery through careful planning began. Today, Grey Nurse sharks are frequently seen by divers and although only anecdotal evidence is available to suggest established aggregation sites, I have no doubt that scientific monitoring, when funding becomes available will provide sufficient evidence to support divers claims.

Divers I believe are the litmus test to marine ecosystems. They are the ones that explore the crevices, the depths and the gutters that support our unique seascapes. In turn, they capture images of what's really under there satisfying their own desires and helping to build a bigger picture of what needs attention and protection. After all, where do divers prefer to dive? Obviously not in areas that don't support something of interest.

Threats to Jervis Bay have been many and varied. In the 1970's the Government of the day saw fit to propose the establishment of a Nuclear Power Source on the foreshores of Jervis Bay. Seismic surveys were undertaken to establish the sub strata geology, resulting in huge circular patches imprinted upon the seagrass beds of the region. Even though I took this photo in the mid 1980's, to this day the seagrass has not regrown.

Marine Parks are suited to most levels of diving and provide a level of interest and diversity a diver seeks.

Marine Parks and reserves are established because they provide natural areas with lower human impacts and have unique ecological properties that should be preserved for future generations to enjoy. They also provide a collective of genetic material for natural or assisted recovery of regions affected by overfishing and various forms of pollution. In affect, they are there for long term sustainability.

So it quickly became evident that Jervis Bay Marine Park not only attracted more visitors than previously, but became a magnet for small business operators and investors, significantly adding to the economy of the region without compromising its aesthetic appeal or integrity.

Jervis Bay is a unique area with clear warm water from the East Australian Current and cold water currents and periodic nutrient fed upwellings from the Continental Shelf. The combination of these currents flowing into and around the bay flush it out about every three weeks and help support the wide range of life-forms on rocky reefs, kelp forests, seagrasses and soft sediment bases in a mixed ecosystem environment.

There is no doubt that there are naysayers out there that don't see value in Marine Parks. But there is no doubt in my mind that Marine Parks and reserves work and provide the necessary protection for species that enable populations to remain sustainable. Jervis Bay is proof of that!

In closing, I believe it is particularly important that globally recognised organisations like Sea Shepherd be mindful of their messaging and how it may be interpreted by others across the world.

Attila Kaszo
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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 pubication 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

The recent focus on potting for wrasse in south-west England has produced concern from conservation organisations and the public but also a reasonably rapid regulatory response from the Inshore Fisheries and Conservation Authorities.

There has been significant research in Norway and Ireland to establish impacts and it seems that depletion of wrasse numbers in localized areas will occur but knock-on effects on ecosystems are unlikely to be significant. Anglers, divers and underwater photographers especially will, however, be alarmed by reduction in numbers.

For those interested in what we know about the fishery and likely effects, there are links at the end and the Marine Conservation Society, in September 2013, also published a well-researched position paper. Do read them if you wish to comment on the fishery.

The wrasse are exported to Scotland where they are introduced into salmon cages to clean lice from the fish. BBC Scotland reports that 'about three million wrasse are needed to support the 60 million salmon produced in Scotland, but only about 600,000 come from farms. The rest are caught in creels and transported to fish farms.' It is the smaller wrasse (rock cook, goldsinny and smaller corkwing) that are especially targeted.

Although fishermen are collaborating with the IFCAs in collecting data from their catches, there seems little effort to study impacts of removal on the populations of wrasse or of any knock-on ecological effects by seabed surveys.

Meanwhile, voluntary 'no potting' areas have been identified in Devon and statutory areas in Dorset. However, the legal provisions for 'Reference Marine Conservation Zones' (where all extractive activities are prohibited) need resurrecting so that we have areas that are as close as possible to natural to compare with fished areas. Inshore areas important for diving and snorkelling should, in my view, be excluded from potting.

On a dive in the western part of Plymouth Sound from Peter Rowlands' boat MV Magic, I came across a string of the very characteristic wrasse pots and took some images to add to my 'Activities and impacts' collection. The image here was taken at about 14 m depth.

Keith Hiscock
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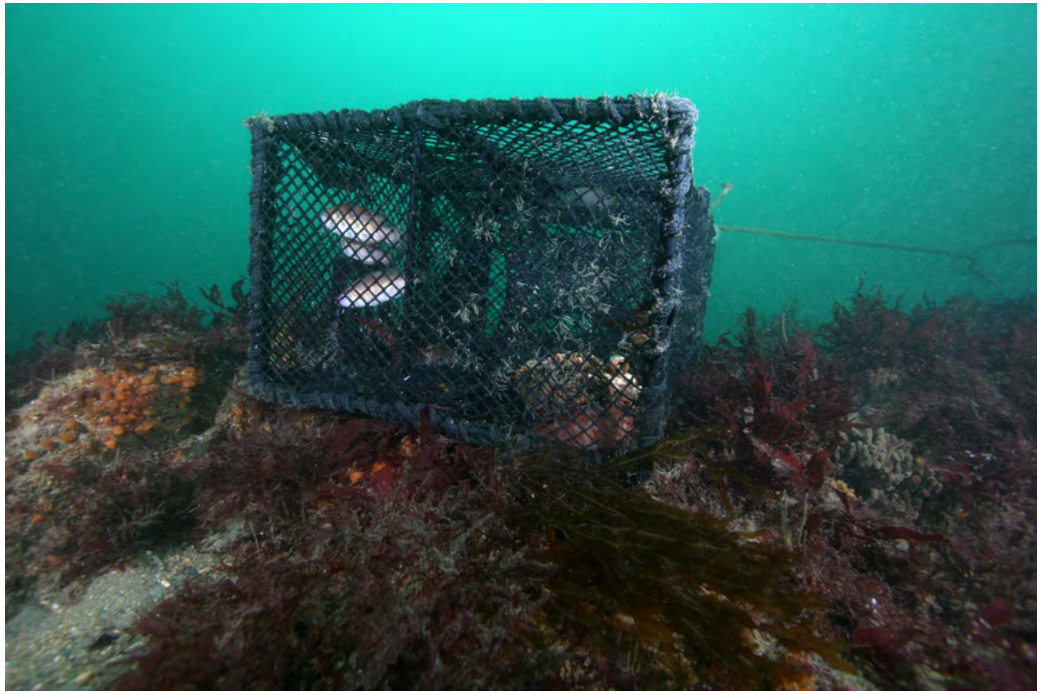

Canon EOS 400D equipped with 10-22 mm lens and twin Sea&Sea YS110 flashguns. The settings were ISO 400; 1/60th second; f 6.3.

For a detailed account including of research and what we know about likely consequences:
https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Wrasse/Final-Wrasse-report-July-5th-2017.pdf

For a summary of the approach that Devon and Severn IFCA have taken:
https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Wrasse/Guidance-for-Live-Wrasse-Fishery.pdf

For a summary of the approach that Southern IFCA have taken:
https://secure.toolkitfiles.co.uk/clients/25364/sitedata/files/Wrasse-Guidance.pdf

For the view of Devon Wildlife Trust:
www.devonwildlifetrust.org/sites/default/files/wrasse_information_for_web_page_.pdf

For the Marine Conservation Society Position Paper:
http://www.mcsuk.org/downloads/fisheries/Cleaner_Fish_Position_Paper.pdf

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