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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.



"We are thrilled to be returning in a few months! The reef systems here are the most unspoiled we have seen in our travels around the world and the resort is paradise. We can't wait to see all our friends at Wakatobi." ~ Robert and Barbara Hay



www.wakatobi.com

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Underwater Photography

A web magazine

UwP128 Sept/Oct 2022

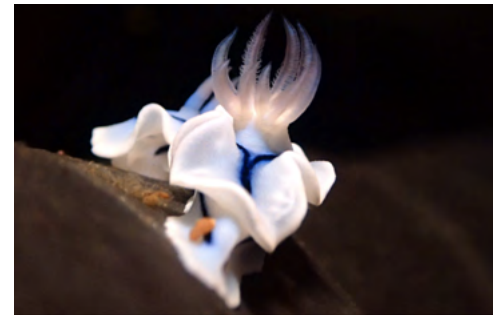
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Editorial

Things aren't what they used to be

Compact digital cameras are/were ideally suited to capture stills or video. The light information falling on the sensor is either recorded as an instant or a series of instants which become a moving image. Sadly the development of these cameras has not received the investment needed as smartphones became ever more capable and even more portable.

The traditional SLR however, which became the digital DSLR, was designed purely to capture still images and it had to be modified considerably both mechanically and electronically, to capture video. The early results were a fudge and lagged well behind dedicated video cameras but nowadays they do a pretty decent job; especially the Panasonic GH range.

Just as the smartphone toppled the compact, now the mirrorless design is undermining the dominance of the DSLR market and looks likely to be the saviour of the serious photography industry.

The good news is that the investment, which was denied to compacts, is now being ploughed into mirrorless cameras and they are now

class leading video cameras as well as top quality stills machines. Notice I just said machines because that's what I think they have become and I'm OK with that. What concerns me is that the ergonomics has gone out of the window - the whole handling of an SLR was so you could adjust the camera's controls without taking your eye away from the optical viewfinder.

Nowadays we have the EVF and the LCD screen and the ergonomics can never get both right. We are, however, for once fortunate as underwater photographers because the housing manufacturers can improve the ergonomics and they certainly have done for DSLRs.

Many moons ago I bleated on that, ergonomically, there should be two designs of underwater housings - one for stills shooters and another for videographers (I'm not keen on that word, by the way) and I feel that the time is right to bleat again because these mirrorless cameras have become primarily amazing video machines so the housing designs could dictate whether they handle as stills or video machines in order to get the most enjoyable and productive performance out of them.

Now I know it will never happen because I accept it would

be uneconomic but I know that the concept is ergonomically well founded. My final point that most metal housings are machined one by one so why couldn't there be two designs?

Here's hoping.

Smartphones designs

The unique Divevolk housings for smartphones are quite literally amazing and certainly ground breaking pieces of kit.

They have a flexible and pressure compensated membrane which mimics the touch of a finger on the smartphone screen; the result is just like you use your smartphone camera on land with the added benefit of being able to access all the apps you have to while away those decompression stops reading a book or playing Solitaire.

The other advantage they have is their accessory lens holder - its position can be adjusted depending on the lens you are using on the phone as some have as many as three lenses in different positions. This isn't critical with a flat port but the phone's wide angle lens quality is improved with a dedicated dome port - the position and design of which is important.

Amazing though the Divevolk

housing is, the appeal of a smartphone to a serious underwater photographer will only start when a manufacturer starts to take the smartphone seriously and produce a ground up housing with quality optics and ergonomics in mind.

You may say I'm a dreamer but I can't be the only one.

Please don't forget your backyard

How short is our memory when it suits and judging by the reports of dive trips, photo workshops and expeditions it's full blown amnesia but please don't forget how much your backyard still has to offer.

Not too long ago it was a godsend, a mental healer and even an surprising inspiration; that inspiration came from taking time to observe what you usually swam (or even worse, flew) past; to see and experience how life lives in the slow lane and it's still fascinating.

Success by the inch is a cinch. Success by the yard is hard.

Peter Rowlands
peter@uwpmag.com

News, Travel & Events

Henley Spiers wins the HIPA Award



The underwater photographer Henley Spiers, also well-known in Germany, has won the internationally renowned Mohammed bin Rashid Al Maktoum International Photography Award (HIPA). The Brit prevailed over around 500,000 photographers from all over the world. He was awarded \$120,000 in prize money for his painting “Gannet Storm”.

Henley Spiers says of his winning photo: “A gannet swims in an elaborate hail of air bubbles created by diving seabirds. The stately

gannets lead a double life. In the nest, their newborn is carefully raised and a pair’s bond is strengthened as they stretch their sharp beaks skyward while tenderly stroking their white necks together. In flight, they adopt hunting mode, and piercing yellow eyes bordered by blue circles scan the sea for prey.

Their large wingspan and streamlined body make flying seem effortless, gliding along with only the occasional flap of their wings. When spotting a fish, gannets fly into the

wind and spread their wings as brakes to precisely adjust their position in relation to their prey. These incredible birds hit the freezing water faster than an Olympic diver and have evolved air sacs in their heads and chests to survive those repeated heavy impacts. Underwater the sound was thunderous as the streamlined white torpedoes pierced the surface.

I wanted to take a new picture of these stately seabirds and decided to capture their movements with a long exposure. The speed of the gannets resulted in countless misses, but in this image eye contact with the gannet is maintained, even though the scene has been artistically softened.”

The embodiment of Arab creativity photographers Kuwaiti photographer Majid Sultan Al Zaabi won the Photographic Content Creators Award, and the Qatari photographer Ali Seif Al-Din won first place in the “Portrait”, and the Egyptian photographer “Ahmed Mahmoud Abdel Azim Abdel Razek” won third place in “Portrait” as well.

www.hipa.ae

www.henleyspiers.com

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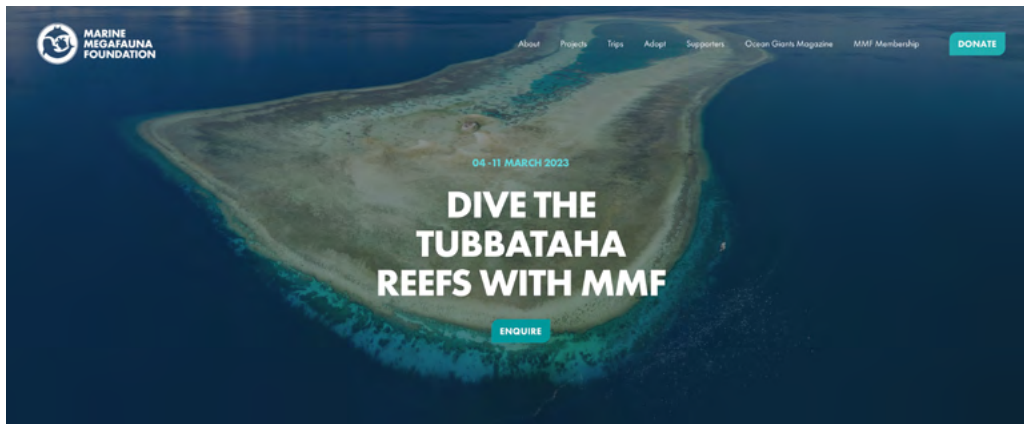
Meet the gentle humpback whales up close in the South Pacific **Niue Island**

organizer of the journey

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Dive the Tubbataha Reefs with MMF’s Founders and Principal Scientists Dr. Andrea Marshall and Dr. Simon Pierce
4th - 11th March 2023

Dive into one of the world’s most remote and vibrant coral reef ecosystems with MMF’s Founders and Principal Scientists Dr. Andrea Marshall and Dr. Simon Pierce. This expedition can take a maximum of 14 guests. All prices are in USD per guest and based on double occupancy.

Tubbataha - meaning a long reef exposed at low tide - is what the indigenous Samal people called this area. Critical to the world’s marine biodiversity, Tubbataha hosts the majority of the coral species and seeds much of the surrounding Philippines with coral and fish spawn and larvae.

Considered as the Crown Jewel of the Philippines’ underwater heritage, this magnificent slice of paradise is maintained in its pristine



state by visitor funding ranger patrols. The Tubbataha UNESCO World Heritage site is 97,000 hectares of remote vibrant coral atolls, abundant schooling fish, seabirds, and megafauna, including whale sharks, manta rays, sea turtles, and dolphins.

The 32.5m P/Y Atlantis Azores is the Philippines premier liveaboard. Dive amenities include a spacious dive deck, three-tier camera setup table, personal storage area, Nitrox, 2 tenders and hot water showers. Topside, Atlantis Azores features seven staterooms with private



bathroom and shower, each with its own climate control. One luxury suite is available with a private bathroom, desk, window and ample storage. Guests can enjoy a wide selection of movies on a flatscreen TV, or relax with a book from the library. There is also a partially shaded sundeck, complete wet bar and hot tub for further relaxation.

Carrying only 16 passengers, a highly attentive crew of 10 is on hand to ensure guest comfort and satisfaction.

Trip Highlights

- Dive Tubbataha Reef on Atlantis - the Premier Philippines Liveaboard, and Trip Advisor Hall of Fame recipient.
- Hosted by the MMF co-founders – ‘Queen of Mantas’ Dr. Andrea Marshall, and world-renown whale shark biologist, Dr. Simon J Pierce.
- Get to know MMF’s marine conservation efforts.
- Expert underwater photography guidance and dedicated camera table.

<https://marinemegafauna.org/trips-all/tubbataha>

www.uwpmag.com



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Sir David Attenborough has helped save the Flinders Pier

The heritage-listed wooden structure was facing the prospect of being completely demolished after Parks Victoria, Australia did not commit to fixing it.

But a grassroots campaign quickly kicked off, with nearly 45,000 people throwing their support behind saving the pier.

The government committed \$1.5 million to undertake “critical works” on the pier that was first built in 1864.

“Everyone down here is absolutely over the moon,” Charles Reis, chair of the Save The Flinders Pier campaign.

Sir David Attenborough became involved after it was revealed there was a significant Weedy Sea Dragon population at the pier.

Mr Ries said there was no doubt that helped. “We call it the Attenborough effect,” he said. “In many ways, that certainly influenced public sentiment because it provided us a vehicle to draw attention to the habitat of the Weedy Sea Dragon.

“This is one of the best places in the world to put on a pair of goggles and a snorkel and come down and have a look at the Weedy Sea Dragon



in its natural habitat and the pier provides that accessibility.

“I think the other thing is that is it’s very popular with fishing people, so families come down and fish off the pier, people love to walk along the pier and so many people have told me stories that they learned to jump off the pier.”

<https://createsend.com/t/r-4EA7C7D5D9FC1D712540EF23F30FEDED>

Gregory Sweeney Photography Adventures



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Bahamas
Feb 2023



Magdalena Bay Sardine Run
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The course was exactly what I was looking for! Now I feel so much more confident with my camera underwater!

Cynthia R.





OceanSnaps.com

Freediving with Orca in Norway
28 Oct-04 Nov 2022, 05-12 Nov 2022, 13 Nov-20 Nov 2022
A life changing experience



Jacques de Vos is an award winning underwater photographer and cameraman whose work has won numerous prestigious international UW photography awards. His photography has been published worldwide in several books and hundreds of publications and as a camera operator he has worked on projects for companies like the BBC, Epic TV and Red Bull and his footage has also been televised throughout the world.

In addition to his media work, Jacques is also the founder and co-owner of Arctic Freediving which offers quests joining their expeditions the opportunity to experience orca and humpback whales underwater in their natural environment and also assisting with research projects centered around these animals.

What makes his work even more unique is that most of it is done while freediving (on a single breath).



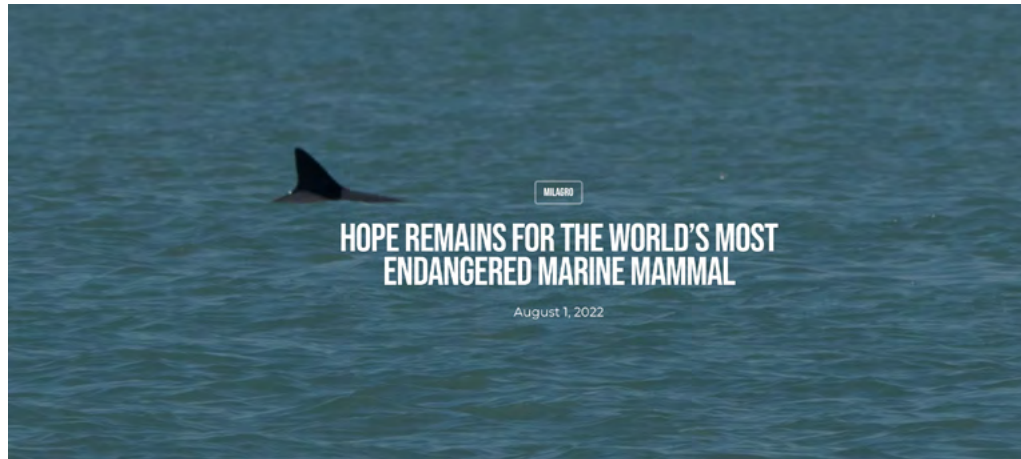
This is not unexpected as Jacques is also a Freediving Instructor Trainer with the world renowned Freedive International.

Join us this coming season to see orcas in their natural environment (both in and out of the water)

For more information, please send us a direct message with your email.

<http://arctic-freediving.com>
<http://jdvos.com>

<https://www.facebook.com/arcticfreediving/photos/a.1826542514239515/3509543019272781/>



A new study published in the scientific journal *Endangered Species* reports that more vaquitas remain alive than population projections initially indicated. This is incredibly good news for the crews, volunteers, and supporters of Operation Milagro, the Sea Shepherd Conservation Society campaign that has worked to protect the vaquita since 2015.

The investigation, carried out by Dr. Lorenzo Rojas-Bracho and colleagues, finds that the remaining animals are in good health, breeding, and surviving and may have learned to avoid the gillnets responsible for the decline of the species.

The study is based on research carried out between 2019-2021 in the Vaquita Refuge – a small region in Mexico’s Upper Gulf of California where the remaining vaquita population is localized. According

to the authors, more vaquitas were sighted than predicted by previous population projection estimates. Scientists observed 7-15 vaquitas in 2019 and 5-13 in 2021. In both seasons, calves were sighted among the adults, proving that the population is breeding. Scientists speculate that the surviving animals may have learned to avoid entanglement in gillnets, which are responsible for the species’ decline.

Dave Hance, the Campaign Director for Operation Milagro, referred to this encouraging news by saying “This report gives hope for the vaquita, but also demonstrates that even greater efforts are needed to protect this species. Sea Shepherd is committed to working even harder with the Mexican Navy and we will be announcing the next steps in our enhanced partnership as we prepare

to continue our years-long effort to ensure the long-term survival of this critically endangered species.”

<https://www.int-res.com/abstracts/esr/v48/p225-234/>

The vaquita is a small species of porpoise endemic to the Upper Gulf of California. Entanglement in fishing gear, primarily gillnets, is responsible for the decline of the species. Sea Shepherd Conservation Society has been working with Mexican authorities since 2015 to remove illegal fishing gear from the vaquita’s habitat, giving the species a fighting chance at survival. To date, these efforts have resulted in the removal of over 1000 pieces of fishing gear from the Vaquita Refuge. This UNESCO-recognized region is home to the remaining vaquita population.

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With over 15 years of experience teaching land and underwater photography, Lisa can teach you at the best dive sites so you can get the most out of your photography. She has been a regular feature writer for *Diver Magazine* for over 12 years, and has contributed to many books and articles over the years. Lisa is passionate about underwater photography, and loves to share her passion in a friendly, relaxed and patient way.

Whether a total beginner or an advanced photographer looking to learn new techniques, Lisa will help you get the best out of your photography. Customer service and satisfaction are very important to her and she endeavours to go the extra mile to make every client's experience the best it possibly can be.

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Categories:

- 1 Wildlife underwater
- 2 Wildlife above water
- 3 Scenery
- 4 People and History



Age Groups:

- 1 Open (Adult and under)
- 2 Under 18 years
- 3 Under 12 years



Closing Date: Sunday, 18 September 2022

Prizes: First and Runner-up in each Category

Prizes donated by Wembury MCA Advisory Group and Sponsors

E-mail photographs (jpeg format, 2 MB maximum) to:

wemburymca@outlook.com

(Rules available on request)

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Classes consist of 1.5 hours of classroom work, which can be done in your own home, hotel, condo, a

dive centre on the island, or via Zoom if you would like to do the class before your arrival. This is followed by a shore dive at one of the many dive sites on the island and a review afterwards. If you prefer not to do a dive, Lisa can offer just the classroom work for you.

Lisa is also a PADI Underwater Photography Instructor and can qualify you during your class with her. This is a great way to add to your skills and become a PADI Master Scuba Diver. Additional PADI fees apply.

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Like the WACP-1 and WACP-2, the WACP-C is a dry mount lens design, functioning as both a port and optical lens. It is optimized to work with professional camera lenses up to a full-frame equivalent focal length of 28mm and offers an amazing 130° angle of view. The WACP-C can focus as close as the front element and captures images with minimal distortion.

A wide variety of lenses are supported, both primes and zooms for a variety of cameras. Please check the WACP-C port chart for supported lenses and suggested configurations as some lenses will require extension rings or adapters.

Similar to WACP-1, the WACP-C greatly improves the overall

image sharpness. It will provide approximately 3 f-stops of increased corner sharpness when compared to traditional wide rectilinear lenses with a similar field of view behind a dome port. This means being able to achieve about the same corner sharpness with WACP-C at f/5.6 that you could achieve with your

rectilinear lens behind a dome port a f/16. As a point of comparison, WACP-1 provides approximately 4 f-stops of increased corner sharpness.

The WACP-C's zoom-through capability means the underwater filmmaker or photographer can capture astonishing wide, medium and close-up shots all with one lens while maintaining optimum optical and close-focus performance. Take for instance the Sony 28-60mm f/4-5.6 lens which receives a field-of-view range of 69° to 130° with the WACP-C. This lens allows for acquisition of more dynamic content on each and every dive without the need for a second camera.

Depth Rating 100m

Outer Diameter x Length 170mm x 145.5mm

Weight (in air) 2.24 kg

Buoyancy (in water) Neg 0.1 kg

Body Construction: Hard-anodized Aluminum Alloy

Lens Construction: 6 Elements in 5 Groups

Lens Coating: Anti-reflective on both sides

Port Mount: N100

Depth Rating: 100m

Focus Range: Front element to infinity

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for Canon EOS R7

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OLYMPUS E-PL10

T-Housing H10 Power



With the T-Housing H10 Power it is also possible to use the GoPro underwater in combination with the Digipower Re-Fuel Hero 9&10 battery pack.

Above water, long recordings at high resolutions and frame rates are limited to the battery life. With the battery pack underwater, not only is battery life maximized - the T-Housing aluminum housing becomes a giant heat sink underwater. This makes recordings of 5 - 6 hours possible.

Each T-Housing consists of a high-quality aluminum alloy for maximum stability. All housing parts are individually milled from a single aluminum block using the latest CNC machines.

Each housing is individually pressure tested after production.

The extremely stable housing protects your valuable camera from

water and the hardest blows – down to a diving depth of 250m.

Due to the optimal heat dissipation of the aluminum housing, your camera is protected against fogging on the front lens – clear view without desiccant!

Each T-HOUSING can be mounted by using two 1/4” tripod threads, for which there is also an optional non-rotating adapter to standard GoPro attachments.

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- Camera manufacturer: GoPro
- Portsystem: Fixed port
- Port shape: Flat port
- Port material: Optical glass

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Sea&Sea MDX-αU housing for Sony Alpha cameras



Sea&Sea has hardly found a new owner when they present an underwater housing for Sony's full-format cameras.

Sea&Sea's MDX-αU fits several Sony cameras at the same time – albeit with slight modifications and trade-offs in some cases.

The Sea&Sea MDX-αU underwater housing is compatible with all full-frame cameras from Sony in recent years. However, this versatility also has its downsides. For example, some functions cannot be operated on the individual cameras or require the installation of an adjustment kit.

Sony alpha 1

Frame rate and focus mode dials are not available by default. This function can be supported using



the optional “α1 Adaptation Kit for MDX-αU”. When switching the frame rate, etc., without modification, this function is available temporarily by registering the camera's custom shooting setting in advance and calling the function, but it is not a perfect substitute.

Sony alpha 9II

The same applies here as with the alpha 1: dials for frame rate and focus mode are not available. It needs the optional “α9II Customization Kit for MDX-αU”.

Sony alpha 7IV

The shooting mode lever cannot be used. This can be remedied by using an optional “α7IV Customization Kit for MDX-αU”. S&Q cannot be used. The kit cannot



be used with an electrically connected flash system.

Sony alpha 7RIV

The a7RiV does not require an adjustment kit.

Sony alpha 7SIII

Even the more video-centric A7SII doesn't require a conversion kit.

All cameras share the following limitations:

The up/down/left/right buttons on the multi selector cannot be used.

Use the up/down/left/right buttons on the steering wheel instead.

The up/down/left/right buttons on the control wheel cannot be used to move the focus point.

The focus point can be shifted with the front and rear dials by using the camera's dial adjustment function.

EUROPE'S NR. 1 UNDERWATER CAMERA STORE



T-HOUSING POWER HERO 9/10

Housing to use with the new DIGIPOWER re-fuel Hero 9 & 10 battery pack, for a longer continues recording time!



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AOI Q1 ULTRA COMPACT STROBE

Ultra compact strobe with GN22 and a 700 lumen focussing light!



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Issue 128/15

AOI UH-OM1 housing for Olympus OM-1



Most underwater housings for the OM-1 are usually heavy, bulky, and cumbersome to handle. Now, imagine if there was a housing, only marginally bigger than the camera but with features and functionality that would allow you to make the most of the OM-1 while underwater.

The new UH-OM1 housing from AOI is a homage to the origins of the OM-1. The housing delivers a similar user experience to the camera when shooting underwater. This includes being able to use some of the most popular lenses for underwater photography while keeping the entire housing and the corresponding ports compact and lightweight. After all what is the point of using the OM-1 underwater when it handles like a truck and weighs like one too.

Although weighing only 1079 grams, it comes with a smart



control box that manages the built-in integrated flash trigger, Vacuum Analyser & Wet Detection System and it is fully rechargeable.

It is fully compatible with legacy port systems from Olympus and as well as those from AOI. The ergonomic design, with a hand grip makes it a favourite for freedivers or surfers. For example, when paired with 7-14mm PRO lens, using the PEN To OMD Converter Extension Ring and &” Glass Dome on the UH-OM1, the entire rig is still positively buoyant in water. Or when using the new plastic Macro Port with the 60mm Macro Lens it is 90gm positively buoyant, which is almost neutral in water. Making the entire system with lens and port a joy to handle.

www.backscatter.com



Nauticam NA-R5C housing for Canon R5 C



“Cinema Mastery”

The excellent Canon R5 has lots of fans, but serious video shooters sometimes felt a bit throttled by the built-in limitations of that camera. Canon's answer is the R5C. All that was great about the R5 has been fully unleashed.

You get Canon best-in-class white balance and AF and simply stunning image quality. Nauticam rose to the challenge with exceptionally elegant engineering incorporating full cinema zoom and focus in a compact form factor that inspires confidence from the very first use. Underwater cinema work has never been this easy.

www.reefphoto.com

www.uwpmag.com

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COMPATIBLE WITH:
RED DSMC2, RED DSMC, ARRI ALEXA MINI, AND RED DSCM3 V-RAPTOR.



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Issue 128/16

Nauticam NA-R7 housing for Canon EOS R7



The latest Canon APS-C mirrorless camera is finally here! The Canon EOS R7 utilizes Canon's newest RF mount and boasts a 32.5MP CMOS sensor. Crop-sensor cameras have always been popular with the underwater shooter community and with good reason. Lens choices, size, and weight are just a few of the great features that shooting APS-C cameras has. The EOS R7 gives original Canon 7D and 7D Mark II shooters a great reason to upgrade and Nauticam is ready to help with the NA-R7 housing.

The NA-R7 underwater housing follows suit with Nauticam's drive for innovation. Like the full frame Canon EOS R5, R5 C and R3, the NA-R7 present shooters with the ability to use both the available legacy EF lenses via an adapter in addition to their native RF optics. To support both the legacy and native lenses, Nauticam has designed a N100 to N120 adapter

which integrates into the N120 Canon EF port system. Canon's EF to RF mount adapters can be affixed to the camera before insertion into the housing. When using the EOS R7 inside the housing with the adapter and a supported EF lens, the port and extension ring arrangement will be identical to the same setup on a Nauticam Canon N120 DSLR. As the RF-S lens lineup emerges, dedicated port and extension ring combinations will be listed on the new N100 RF-S Port Chart.

The Nauticam vacuum check and leak detection electronics are shipped with the NA-R7 as standard equipment. Combined with an accessory vacuum valve (25624) this monitoring system provides constant updates on the water tight and safe-to-diver status of the housing.

www.nauticam.com



Nauticam NA-A1 housing for Sony a1



"Do-Everything Powerhouse"

Sony has reconceived what a pro camera should look and feel like with the Sony a1.

Sony maintained the form factor of the A7 series, but loaded it with state-of-the-art technology that provides superior stills and video performance. 4K 120p, 8K Video, 50MP @ 30FPS, 9M dot EVF and more breaks new ground in this class. If you can dream it, the a1 can do it.

Married to the Nauticam NA-a1 housing with its superior ergonomics, the underwater possibilities are near limitless.

www.reefphoto.com

www.uwpmag.com

Sony Venice 6k housing Sea Frogs SF-L02 light



We now have a housing that takes the new 6k Sony Venice with RAW recorder fitted inside a surface controlled housing for studio and tethered filming applications

This underwater housing requires one of our housing technicians or focus pullers / 1st AD to prepare it for you and we can also provide an underwater cam-op if required.

Technical Specs

Depth Rating 40m

Dome port 250mm glass

Buoyancy Neutral in salt water

Ship weight 4 boxes @ 23kg each



The Sea Frogs SF-L02 is a new compact LED-type light and strobe specially designed for underwater photography and video.

The SF-L02 is equipped with a module array composed of a 23 mm white light COB LED (6500/5000 lumen), 6x red light LEDs, 6x blue light LEDs, 6x green light LEDs and 2 UV light LEDs.

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Specs:

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6500 lumen @ 1/4 sec in strobe mode
120 degree beam LED light
Stepless dimming



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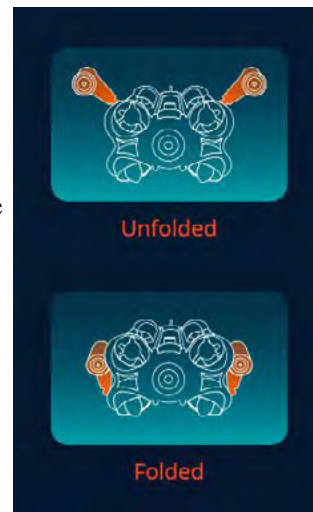
Chasing M2 PRO MAX is an industrial-grade ROV / underwater drone, designed for government and enterprise users.

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The built in camera supports up to 4K video/12 megapixels photos, and is equipped with 1/2.3 Sony CMOS and EIS function to clearly capture every detail underwater and truly restore the natural color underwater. The f1.8 lens has a field of view of 150° !

CHASING M2 PRO MAX has a built-in 128G removable SD memory card (up to 512G), supports three mobile devices to share returned underwater footage and data (temperature and depth) in real time, and supports a variety of real-time sharing functions such as HDMI real-time projection and live broadcast. The maximum diving depth is 200m



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Nauticam NA-A7RIV
for Sony a7R IV



"Resolution Rethought"

Sony, has come up with yet another addition to their a7 line that is sure to impress. This fourth edition of the a7R sees the inclusion of an updated 61MP

Exmor R BSI CMOS sensor and enhanced BIONZ X image processor. Despite its high resolution, it can shoot at up to 10 frames per second with full autofocus and shoot 4K video either from the full width of its sensor or from a Super 35 crop. The NA-A7RIV 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-7RIV continues this tradition.

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The SeaLink Contact-type underwater Wi-Fi signal transmitter is a unique design that allows a Wi-Fi connection between a smartphone and Wi-Fi enabled camera underwater. It allows users to operate the camera through smartphone, or to take the smartphone as an underwater monitor for the camera.

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Samsung Galaxy S21/S21+/S21 Ultra/S20/S20 FE/S20+/S20 Ultra/S10/S10E/S10+/S9/S9+/S8/S8+/S7/S6/ Note 20/20 Ultra/10/10 Lite/10+/9/8/A90/A80/A71/A70/A60/A52/A51/A50/A50S/A40/A40S/A21S/A20E/A9S/A8S/A8+/A6S/A5/A750

SONY Xperia Pro-I/5/5II/5III/10II/10III/1/1III

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The all new 2.0 with many upgrades, but most importantly, it now films in MP4, so no formatting or conversion is required. There is also now a handy screen you can take on the bank or boat to view your footage there and then!!

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tFlex-arm is a trademark aws, that operates in the plastic molding sector since 1979, following also the design and construction of injection molds and that over the years has successfully developed a good experience in different fields of application.

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The 200DLM/B Underwater Housing is the perfect companion allowing use of the OM System (Olympus) OM-1 mirrorless micro four-thirds cameras in or around the water for scuba, snorkeling, surf, pool, or any adventure.

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This housing requires the addition of a compatible DLM Lens Port for waterproof operation. Lens Port not included.

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housings available, 5 inches is ready, we are working on a 7 inches external monitor.

Important note : The Sony Alpha 7 III, RIII and R4 UW housings share the same body, you can upgrade your housing if you plan to change camera in the future.

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We know that professional need tools they can upgrade, cameras evolves so fast.

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Wise Divers Publications

wisedivers.com

For Immediate Release: *Diving Through The Decades* is available now.

This is the fifth book in the Wise Divers eBook series.

Announcing a new eBook that chronicles the progression of scuba diving from its humble beginnings to an international sport enjoyed by millions. Written by highly respected diving historian Eric Hanauer, *Diving Through The Decades* takes readers on an up-close and personal, decade by decade journey through the evolution of diving while highlighting inventions, events, and noted diving pioneers. The comprehensive text includes personal stories, historical photographs, and insightful interviews Hanauer conducted with numerous diving pioneers who laid the foundation of diving as we know it today. The interviews (conducted over a period of 40 years) transform the book from a gathering of historical facts into an intimate experience for diving enthusiasts.

Hanauer's first magazine article appeared in *Skin Diver* in 1977. That launched a parallel career as a writer and photographer that took Hanauer around the world in the heyday of the magazine industry. Eventually, he expanded into other publications, including *Dive Training, Fathoms, Scubapro Diving and Snorkeling, Scuba Times, and Sport Diver*, among others. His byline has appeared in more than 1,000 articles, many reprinted internationally. The recipient of the prestigious NOGI (New Orleans Grand Isle) Award in Sports/Education in 2019 presented by the Underwater Academy of Arts and Sciences, Hanauer has written four additional books: *The Egyptian Red Sea, Diving Pioneers, Diving Micronesia, and Immersion*, a corporate history of Aqua Lung.

Created by divers for divers, the Wise Divers eBook series began in January 2021 with the publishing of *101 Tips for Underwater Photographers*. More information on all 5 eBooks in the series can be found at wisedivers.com.

The eBook is available from [Apple Book Store](https://apple.com) and from [Amazon.com](https://amazon.com)

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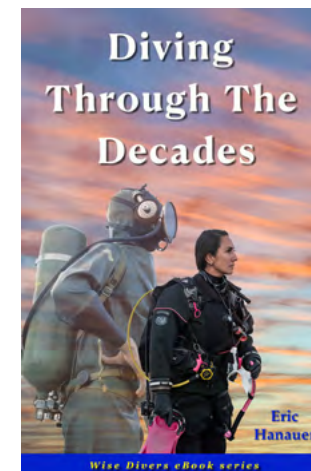
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2022 Digital Shootout, Bonaire

by The Digital Shootout Educational & Production Staff

The worldwide community of underwater photographers is small in scale, but mighty with our shared love of the ocean. Being out of the water for 2+ years felt foreign to many of us. How glorious it was to not only spend precious moments underwater again, but also to reunite with our fellow image-makers at the 19th Digital Shootout in Bonaire at the Divi Flamingo Beach Resort!

During this year's two week-long workshop for underwater photographers, an international mix of 65 guests and 20 staff gathered for the sharing of photography and editing techniques, checking out the newest underwater imaging gear, exploring and relishing in the tranquil calm of Bonaire below the surface and capturing meaningful images of marine inhabitants with like-minded dive buddies old and new. While this year's Shootout offered a new two-week schedule – 3 boat dives daily, 24-7 shore diving available, late afternoon seminars, evening image critiques or inspirational presentations by the pros – the hit-the-ocean-finishing energy makes for a contagious learning environment for improved underwater imaging.

Emerging from a 2+ year

pandemic, many folks were a bit rusty when it came to scuba diving, their camera and their image editing software. But once the fog cleared, guests participated in the very full daily schedule of 3 boat dives, 24/7 available shore diving, daily late afternoon seminars on photography, videography or editing, evening image critiques or inspirational presentations by the pros and checking out the awesome underwater camera gear in the Demo Gear room. Squeeze in breakfast, lunch and dinner and you've got a 27-hour schedule packed into one day! Then repeat every day for two weeks... you can autobahn your way to improving your underwater imaging skills in a very short time. It's also your vacation time, so if a seminar was skipped for the spa, or an image critique was passed on for a night dive, no judgement here, only thumbs up. Learning and fun go together like peanut butter and jelly or Champagne and caviar. Learning is FUN!

A common sentiment heard over the two-week event was one of gratitude. Appreciation for all things big and small was conveyed by many, who were overjoyed to get back into the ocean after a lengthy unplanned



© Todd Winner

hiatus. Being surrounded by like-minded folks buoyed spirits and souls. We are among the lucky.

Whether it is immediately realized or not, once you become an underwater photographer, you

DIVE INTO THE BEST DEMO GEAR STAFF IN THE INDUSTRY



automatically become an ambassador for the underwater realm. Many factors are causing the degradation of the Earth's oceans, lakes and waterways. By sharing your images and experiences, you too can be the impetus for change by increasing awareness and getting folks to care about the ocean. Love the ocean. Protect what you love. Manufacturers and their reps bring thousands of pounds of cameras, housings, strobes, lights and accessories to the Shootout each year for guests to try out the newest underwater imaging gear available. The Demo Gear program is second to none, as no other underwater photography event has as much gear to demo as the Shootout. Please visit our Gear Tests page for reviews by our on-location pros of the latest cameras, housings and accessories.

While it's called the Digital Shootout, the focus of this event is learning. Our participants range from budding beginner to veteran shutterbug, and regardless of skill level, everyone goes home having learned something new. Year after year, the organizers – Backscatter Underwater Video & Photo and Under Exposures – collect some amazing prizes to award at the event's end when even the budding beginner has gained skill and confidence to enter



2022 Digital Shootout Educational & Production Staff - Berkley White, Jim Decker, Todd Winner, James Emery, Jennifer Penner, Joel Penner, Dan Baldocchi, Erin Quigley, Cristian Dimitrius, Hergen Spalin



into our friendly competition. You'll find beautiful imagery in photos and videos that depict the wonders of the ocean in the Contest Results section.

Join us in 2023 for the 20th annual Digital Shootout, held in Little Cayman at the Little Cayman Beach Resort! Whether new to the Shootout or a long-time friend, the camaraderie amongst like-minded individuals is unmatched! See you in Little Cayman!

www.thedigitalshootout.com

Bonaire Coral Reef Restoration at the DIVI

Unfortunately, it's old news that coral reefs around the world are on the decline but for 10 years, a coral reef restoration program has been in place on Bonaire to help mitigate these losses and increase the health of the reefs.

In 2021, another coral nursery was added at the Divi Flamingo's house reef. Heading up this new nursery of staghorn and elkhorn corals is scuba instructor Dénise Glacier.

Currently, the nursery is 3 underwater "trees" that each holds 100 coral fragments – 70 staghorn, 30 elkhorn. Once the fragments are large enough, they are out-planted onto the Divi's house reef, Calabas Reef, where (hopefully) they will continue to grow and attract marine life. To learn more about the coral reef restoration being done on Bonaire, check out Reef Renewal Bonaire.



www.reefrenewalbonaire.org

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FOR SALE – Sea Frogs Panasonic GH5 housing, flat and dome port

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FOR SALE – Nauticam Na-d800 Housing for Nikon D800

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FOR SALE – Nauticam flat ports and lenses Sony 28mm and 90mm

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This one year old set of equipment is in excellent working condition and will serve great to a new owner. The reason for sale is a switch to a new equipment. Nikon D500 (19k clicks). Sigma 10mm F2.8 Fish Eye. 128Gb XQD Lexar ... [More >](#)

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Olympus OM-1 underwater review

By Jim Decker

The OM System OM-1 camera is the latest top-of-the-line flagship Micro 4/3 camera from OM System, formerly Olympus. We took the new OM System OM-1 mirrorless camera underwater to the Digital Shootout in Bonaire for a complete review and performance test. With crazy specs of shooting 50 frames per second in RAW, a new autofocus system, and 4K60p video, can this camera deliver or even outgun the full-frame big boy cameras? In short, it's a surprisingly mixed answer, read on for the details.

Olympus is rebranding to OM System. The OM-1 is the first camera to carry the new OM System brand name. All the great performance from TG compacts and Micro 4/3 mirrorless cameras and lenses will carry on under the new brand name. As time goes on more cameras, lenses, and accessories will be rebranded during this transition. We're excited that the first camera bearing the OM System name knocked it out of the park as much as the OM System OM-1 did, and we look forward to seeing their progress in the future.

Why a High-End Micro 4/3 Camera?

Micro 4/3 cameras from Olympus, OM System, and Panasonic have a sensor size half that of a full-frame. Size-wise the camera is only a tiny bit smaller than a full-frame Sony a1. The resolution on the OM System OM-1 is 20MP, while the Sony a1 is at 50MP.

While the camera body of the OM System OM-1 is about the same size as the full-frame Sony a1, the lenses of the 4/3 system are significantly smaller and lighter.

Since the sensor is 1/2 the size of a full-frame, the lenses are so much smaller and lighter too, most times less than half the size and weight. It's no wonder that higher-end 4/3 cameras are a top choice among the birding and safari community.

For us underwater shooters we get smaller housings and smaller ports due to the smaller size 4/3 lenses. This will make the OM System OM-1 appreciably smaller than a full-frame camera system when outfitted for underwater duty. For those who have travel size as their top concern, this system wins hands down against a full-frame setup.



Why go with this camera when it's the same size as a full-frame? The answer is in the lenses of the Micro 4/3 system

Now that we've explored that size is a major driving factor for this camera let's check some of the top specs.

Image Quality With a 20MP Sensor

The photos that are coming out of the camera look great. Very good sharp detail. The colors look spot on for underwater photography. For wide shots, I used the Olympus 8mm fisheye, which is from their pro line of lenses and exhibits excellent image quality. For macro, I used the Olympus 60mm Lens .

Olympus/OM System has always had high-quality optics and they are a



good match for this camera.

A resolution of 20MP is good for most shooters. It's more than enough resolution for social media, website use, and pretty much any electronic final delivery format. It could be argued that even 20MP is more than enough for these purposes. A 4K TV is only 8MP.



Despite the camera only having a 20MP resolution, this image captures super sharp detail, especially when viewing at 1:1 on the damsel fish's scales.
OM System OM-1 | Olympus 14-42mm EZ | AOI UWL-09 PRO Lens | 1/125 | ISO 200 | f11

Why would you need more resolution? If you plan on making larger high-quality prints or are cropping verticals out of horizontal shots. Even then, unless you are going billboard size, it will look decent. And even at billboard size seen at 15 feet or 15 miles an hour you would never be able to see the difference.



The tracking AF of the OM System OM-1 with a macro lens and diopter was absolutely fantastic. I used a +5 diopter with the Olympus 60mm Lens lens and it has no issues in tracking the eye of a blenny.
OM System OM-1 | Olympus 60mm Lens | 1/250 | ISO 80 | f16

these specs won't be much of a concern as even the best strobes have problems keeping up with 5-10 shots per second at really low power. Free divers and those doing marlin or sardine runs without strobes will appreciate the super-fast shooting in action shots, in addition to the light weight and small size.

Of course, the ultimate answer for wanting more resolution is because you can. Full frame sensors will have better image quality and detail than a 4/3 size sensor, but you can definitely get good images out of the OM System OM-1 that most people will be thrilled with. We have large prints hanging up in Backscatter, some of which were shot with older lower resolution cameras and look great. If you're a pixel peeper like me, certainly go for more resolution, but for a lot of others, this will fit the bill.

Mind-Boggling Shooting Speed of 50 FPS in RAW with Full AF—With a Catch

There's been a war lately among the camera companies about who can shoot the fastest. The OM System OM-1 takes the cake in this regard with 50 FPS with full AF and 120 FPS with focus locked. The catch is these speeds are only available with certain Pro series lenses. If using other glass the speed drops to 25 FPS. Yeah, I don't see that as much of a problem...

Most underwater shooters are using strobes so

Autofocus Tracking That Will Rival the Best Full Frame Cameras

When we evaluate the performance of continuous autofocus tracking we always base it against our personal gold standard found on Nikon's 3D AF Tracking mode. The OM System OM-1 operates exactly the same way as our favorite AF tracking systems from the Nikon Z9, and Sony a1.

For those unfamiliar with how tracking works, it goes like this: There's a focusing square in the center of the screen/viewfinder that when pressing the AF-ON button will focus on the subject in the square, and as long as the AF-ON button is being pressed, the camera will track the movement of that subject through the frame and update focus continuously.

Put the focus squarely on the eye of a subject either by moving the focus point around, or just move the camera to put the square over their eye, press and hold AF-ON, and it will track the eye of that subject. In the rare instance of the focus point slipping off the subject, just release the AF-ON

button, repoint and engage again. Once you use a competent tracking AF system, you'll never go back again.

The worst thing you could ever throw at an AF system is macro with its thin depth of field. Add on a diopter and it's the worst torture test you could do to a camera.

The tracking focus of the OM System OM-1 worked just as well as those from the Nikon Z9 and Sony a1. That's an amazing achievement for a camera that is a mere fraction of the price of those full-frame setups.

Low ISO 80 For Dark Backgrounds

It can often be a challenge shooting macro during the day in bright ambient light conditions while trying to keep the background as dark as possible. By selecting the low "extension" ISO value of 80, you can knock out more ambient light than at the base value of 200. This will sacrifice some dynamic range in the shadows but will preserve more highlights. Any loss of shadow detail in the shadows isn't much of a concern for macro shots, which typically are not high dynamic range shots, to begin with. I could not tell any difference in image quality when shooting in the lower extension ISO ranges of ISO 100 or ISO 80.



Having an ISO range down to 80 helps eliminate ambient light when shooting with a snoot during the daytime for the classic black background shot without the need for a night dive.

OM System OM-1 | Olympus 60mm Lens | 1/250 | ISO 80 | f8

Flash Sync Speed Spec'd at 1/250 But I Got It To 1/500

The camera lists the spec of the flash sync speed at 1/250. However, when using a manual flash trigger with only ground and fire connections, the camera has no idea a flash is connected and will allow the shutter speed to go higher than the max sync speed of the camera. I was able to shoot at 1/500 with no sign of the shutter in the image. The shutter did creep in at 1/640.

There are plenty of uses for a higher sync speed. Freezing

more ambient light to prevent motion blur of fast-moving subjects, darker backgrounds for macro while using a wider aperture, or getting more light from your strobes by increasing ISO and shutter speed for wide angle while maintaining a darker background. It's the biggest surprise this camera has and it's pretty huge in terms of flash capability. The Sony a1 is the only other flash to sync at 1/400 and this is 1/3 stop better than that. I can't emphasize how awesome this is.

Since this is not an official spec, please don't rely on this as gospel. There may be tolerances with different cameras or firmware versions. We saw the



It's impossible to see the foreground in a sunball shot such as this. I could not see the trumpet fish at all; framing was a pure guess and I lucked out. Even though I could not see the trumpet fish, the autofocus system was still able to lock on and track the subject.
OM System OM-1 | 8mm | 1/250 | ISO 200 | f13

same 1/500 sync capability with 3 different camera bodies, then our in-studio test conducted with a camera from our inventory yielded a max sync speed of only 1/400 before the shutter just started to creep in. In either case the camera successfully exceeded the official stated spec, but keep in mind that your mileage may vary.

Electronic and Rear Screen Live View Performance

I do believe today's electronic viewfinders (EVFs) are preferable for macro shooting to an optical viewfinder. The review in the finder is awesome without sun glare, and the focus peaking feature is great for those whose eyes aren't tuned to see absolute critical sharpness. However, I've gone on diatribes about my preference for an optical viewfinder for wide angle scenes. Nothing can beat the dynamic range of a human eye looking through glass.

Unfortunately for the OM System OM-1 the live view and EVF performance is not good with wide angle high dynamic range shots like when shooting a sunball. The foreground is in complete shadow with no detail, but the sunball can be seen to be framed. There is nothing in the menu system to adjust a tone curve on the viewfinder or back screen to boost shadows. There are

only brightness and color balance adjustments. This is a real shame as it is one of a really short list of disappointments with this camera.

For just about any other shot if I was not shooting directly into the sun, the viewfinder and screen were adequate.

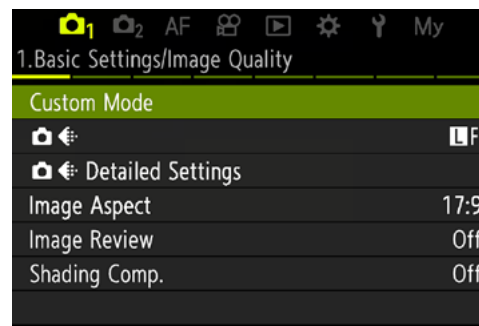
A Return to an Excellent Body and Control Set

The previous Olympus E-M1X flagship camera had a larger pro-size body that frankly was the wrong direction to go. It made the camera way too big for what people loved about a 4/3 system—small size. We're very pleased to see the OM System OM-1 return to a familiar size format of other OM-D cameras from Olympus, all of which had excellent ergonomics.

Dedicated dials for shutter and aperture, a direct dedicated button for ISO, and lots of direct buttons and plenty of customization. Anyone coming from an OM-D camera will feel right at home with this control set.

The quick menu gives easy access to popular shooting settings for things that wouldn't be assigned to a camera button mean you can set this thing up to rarely needing to jump into a menu while shooting.

There are 4 custom modes on the mode dial allowing one to store favorite settings for macro/wide/



video/etc. Most other cameras only have 2, maybe 3.

We talked earlier about the camera not being all that much smaller than the full-frame Sony a1. I think any smaller and the camera would be harder to handle topside. I don't think it is good to think of the OM System OM-1 being as large as a full-frame camera, more that the Sony made a really small full-frame camera.

Completely Redesigned and Improved Menu System

The menu system has been revamped and is much more user-friendly in its organization and functionality. Gone are the hidden and convoluted ways of multiple settings to do something simple such as move AF to the AF-ON button and off the shutter. Now you just have to tell it to turn off the focus of the shutter. It's almost like a shooter designed this thing instead of an engineer. Sorry, no offense engineers.



Video- Decent 4K60p Shooting Spec, Hampered by Ambient Light White Balance

In these days and times a camera can't be considered seriously if it doesn't have at least 4K60p video, and preferably 4K120p. The video specs are pretty decent for a camera that isn't being aimed at videographers. That being said the Achilles heel for this camera is the lackluster underwater custom white balance.

What's new with the OM System OM-1 versus other Olympus cameras is that when it captures a custom white balance it actually displays the captured Kelvin temperature. This is unique among any camera and a welcome addition. Unfortunately, the color that is captured is woefully inadequate. In my experience at a depth of 30ft, the camera needs a white balance of at least 30,000K. The OM System OM-1 only produced a white balance of around 11,000K at 30ft, way too low for the conditions which results in a blue/green color cast with no reds or other natural-looking colors.



The white balance preset underwater fish mode only seemed to work within the range of snorkeling depths but performed better than a custom balance. That being said it's pretty unusable for ambient light white balances at even pedestrian depths.

A color correction filter will be necessary for any wide angle ambient light video, but that requires a dedicated dive. Otherwise, video lights can be used for both macro and wide while balancing to the lights.

Due to this frustrating limitation, I would not recommend this camera to any serious video shooter.

Conclusion

The OM System OM-1 is the best 4/3 camera that a photo shooter can have right now. Speed of shooting is excellent combined with the speed and accuracy of tracking autofocus rivaling cameras that are 3 times the price. The 2 weak spots are the lackluster white balance capabilities and the inability to see the foreground

in sunball shots.

The hacked 1/500 sync speed is the sleeper underneath the hood that makes a big difference in controlling ambient light. No other camera can do this right now, and for me, is the biggest game-changer.

Regarding the 20MP resolution and remember that this is a smaller sensor camera, it will not be able to match the image quality of larger full-frame cameras. That being said image quality is at the top of the list for anything less than full-frame, and those full-frame cameras come at a much higher price and size premium. I found the images coming from this camera to show excellent image quality and if this was my only camera, I would definitely be satisfied with it.

Who is this camera for?

If you already shoot an Olympus E-PL10, Olympus TG-6, or any other

compact camera, and you are ready for the next level of photo rig without breaking the size or budget bank, then take a serious look at the OM System OM-1. The performance upgrade is quite noticeable and makes getting the shot much easier.

Someone who wants a camera to do double-duty topside and needs some long glass that can be handheld will also want to take a serious look here.

The main story of this camera and lens system is that it is small and

can travel relatively light and with the right choices can be handled as a carry-on.

Someone who wants to downsize from a larger DSLR needs to know what they are giving up. The wide angle sunball shot will probably be the most frustrating, but if not doing those types of shots one can get used to the EVF to a certain degree.

This is the closest performance to a high-end full-frame mirrorless or SLR that I have ever seen in a 4/3 camera.

Jim Decker
www.backscatter.com



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

Marelux SOFT Snoot Focusing Light

By Phil Rudin

Light shaping devices have been around about as long as land photographers have been exposing images. Underwater photographers have adopted these same techniques by using the position of the sun to create interesting lighting effects, a verity of diffusers to widen and soften flash lighting and more. Multiple flashes can control shadows, highlights, contrast, color and depth.

Another technique underwater photographers have taken right from the studio photographers toolbox is the use of snoots for shaping and directing light onto the subject. A snoot is a cylindrical or conically (cone) shaped lighting device which is fitted over the flash to produce a focused light beam directed onto the subject. The snoot creates a column of light which will allow you to separate a subject from its background or place a very narrow sliver of light on an element of your subject like its eye or mouth. We most often see snoots used for macro photography but they also work well for close focus wide angle situations.

I began using snoots made from a white plastic funnel taped to my flash more than forty years ago in my film days. This was a very frustrating endeavor because it was hard to tell where the snoot was pointed and without the instant feedback of live review you never knew if you got the shot you wanted.

With today's digital equipment using a snoot can still be a bit frustrating but it can be far more



productive than in the thirty-six exposure film days.

The use of snoots has become so popular in underwater photography that several types of snoots are now commercially available and many more home made versions can be found on the internet. Most commercial snoots are of two types. Those where the light is conducted through a hollow tube and those where the light is conducted through a bundle of fiber optic cables.

With most hollow tube snoots different size aperture cards can be added to widen or narrow the light beam and color filters can also be added. The light can be moved closer to or away from the subject to change the shape of light. This allows you to harden or soften the edges of the light to affect the look of your photograph. A harder edged light will reduce "spill" (stray light) from getting onto parts of the photograph where you don't want the



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Octopus, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

light to be. With a soft edge the light beam makes a smoother transition across the photograph from light to shadow which is preferable for many critter portraits just as it is with people portraits.



Marelux SOFT Snoot

Marelux Precision Incorporated is headquartered in California USA and products like the SOFT are manufactured in China. Marelux is owned by several hard core professional underwater photographers and engineers who love to dive as much as I do. The web site, which is still a work in progress is Marelux.co.

The Marelux SOFT (Smart Optical Flash Tube) Snoot is unique because of its wide range of control over the light beam. The SOFT is designed for use with a verity of popular underwater flash heads. The SOFT uses “Docks” designed and sold separately for Ikelite DS161, Inon D200, Inon Z-240, Inon Z-330, Retra Flash Pro X, Sea & Sea YS D2 & D3. Additional docks have been added for the Seacam 150, Seacam 160, AOI Q1, Inon S2000 and Sea & Sea YS D1.

The docks sell from \$99.00 to \$149.00 and the SOFT main body sells for \$399.00 bringing the total cost for Inon Z330 dock and SOFT to \$548.00 currently in the US. Marelux has a network of dealers world wide so check your area of the world for latest pricing.

The SOFT has three parts, the first is a metal dock which is mounted to the flash in several ways depending on the flash type. The dock I used is for the Inon Z-330, my most frequently used flash. The dock simply threads onto the “Light Shade” mounting threads already on the Inon Z330 flash. To mount the SOFT to the dock simply align the white mark on the SOFT with the white mark on the dock and turn 45 degrees until the SOFT is locked into place.

To remove the SOFT hold down the locking device and reverse the process. This keeps the SOFT securely mounted to the flash dock at all times. The SOFT ships with a one inch ball-



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Peacock Flounder, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

head that mounts with two stainless Allen screws to the bottom of the SOFT. The SOFT also comes in a useful hard case for protection during travel and storage along with extra O-rings for the battery cap.

When the flash and dock are mounted with the SOFT ball-head the entire unit is well balanced on the mounting point. I mounted the SOFT directly to the top of a Marelux MX-A1 housing for the Sony A-1 using a Marelux three ball cross bar which is sold separately. The cross

bar mounts to the housing grips and uses the standard one inch ball-head and a clamp of your choosing. I also used the SOFT handheld and on a small tripod which allowing several different configurations depending on the shooting situation. Docks for the other non-Inon flashes slide over the flash head and are secured in place with Allen screws.

The second part of the SOFT is the adjustable aiming light battery and switch compartment which is on top of the SOFT light tube. The cap end

of the battery compartment is double O-ring sealed and excepts a 67mm long 18650 Lithium 3.7V battery which is inserted with the plus end towards the no/off switch. Once the O-rings on the cap are properly lubed it threads into the battery tube and securely seals.

The battery is rated to run sixteen hours continuously with a fully charged battery. The batteries and charger are sold separately and I sourced mine from BH Photo. I am sure battery life will differ a bit between battery brands.

A switch on the top of the SOFT tunes the aiming light on and off. The aiming light has a brightness of 180lumen at 130mm from the subject and the beam angle can be adjusted from 8mm to 50mm using the wheel on the side of the SOFT.

The recommended shooting range is 120mm to 180mm from the subject and of course the closer you get the smaller the beam angle will get down to about 2mm. As the beam angle is decreased so is the intensity of the light. As always the light should not be turned on above water except to make sure it is working.

The third part of the SOFT and what makes it so unique is the dial on the right side that adjusts the beam angle. The SOFT has an iris inside that opens and closes much like a camera lens when you change



apertures settings. The dial is so easy to control that you can reach up while looking through the viewfinder and see the light beam change shape and diameter in real-time. This is very useful when trying to pinpoint a subject because you can start with the iris wide open and then just slowly reduce the beam angle to the desired size while remaining locked on the subject.

With the SOFT mounted upright on the cross bar the dial is on the right-hand side which is the hand used to hold the housing and trigger the camera. I would have preferred the dial to be on the left-hand side but find it easy to reach over the top and control the dial with my left hand.



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Sea Urchin detail, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

Off camera handheld or on a tripod the the wheel placement is not an issue. The aiming light is mounted in front of a slightly opaque filter which sits between the flash and the light tube. This filter is installed to soften the flash so that “hot spots” are not created in the frame. At the end of the SOFT tube is a ground glass element that helps shape the light beam coming from the Z330 flash as it passes through the iris and travels down the SOFT flash tube. The result is a soft pleasing light that is neither

harsh nor overly hard at the edges between dark and light.

I normally do a lot of my macro tests at the Blue Heron Bridge in Palm Beach County, Florida USA when I am not traveling out of the country. This is a shallow area so two to three hour dives are common. To test the battery endurance of the SOFT I just turn the aiming light on at the beginning of the dive and didn't turn it off until the end of the dive. The remaining battery level after one dive has always been more than enough to



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Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing, macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

do at least two more like dives or well more than a full day of diving.

The Marelux SOFT is made from anodized aluminum and is 210mm long, total length depends on the type of dock and flash used. The SOFT with Z330 dock weights 205g in air, 135g in water and



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Peacock Flounder Eye, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

is depth rated to 100 meters. Clean the SOFT after each dive in the same way you would with the rest of your camera gear. The dock holds some air so don't be alarmed if you see bubbles coming out around the flash when you first enter the water.

I would also note that color gels can be installed between the back of the soft and the dock when they are connected. The gel is held in place between the flash and the back of the SOFT allowing you to try different color lighting effects. Keep in mind that darker color gels like red reduce the amount of flash intensity while lighter gels like yellow allow more light to pass through the SOFT to the subject.

Field Testing the Marelux SOFT

I tried four different methods to mounting the SOFT, hand-held, on a tripod, mounted directly to the cross bar on top of the housing and mounted



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Mantis Shrimp Eye Detail, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/10, 1/400th sec

on a flash arm attached to the housing. Hand held works well if you are shooting in a location where you don't need a free hand for balance, support, or in current, etc. The big issue using the hand-held technique is holding the housing steady with one hand while you are attempting to focus a small sliver of light onto an in focus subject. I can't stress enough how important it is to have a well balanced easy to control housing when hand-holding. To assist with this I added a carbon fiber float arm to the Marelux MX-A1 housing for added buoyancy and balance. I also used the same arm and a four inch ball arm for support when the SOFT was mounted to the housing. The problem with the arm/housing mounted method is trying to lineup the subject and focus the lens while while moving the light beam onto the subject at the same time. I found it somewhat frustrating having one eye glued to the viewfinder while trying to aim the focusing light with the other on an arm. With the SOFT mounted



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Orange Cup Coral, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-400, F/5.6, 1/400th sec

directly to the cross bar on top of the housing and centered over the macro port moving the light where you wanted it to be was less challenging. The light pattern does however become a bit more oval as a result of the angle which the aiming light



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Juvenile Parrotfish, Blue Heron Bridge, Sony A1, Sony 90mm macro, Marelux MX-A1 housing with macro port, Marelux MX-SOFT, Inon Z-330 flash, ISO-640, F/9, 1/400th sec

is coming from. This can be good or not so good depending on your subject. For side lighting the top mounted configuration is much less useful and going to a tripod can work best. With the SOFT mounted on a tripod the light can be aimed at the subject from any direction and the camera can be moved around the subject to get the most ideal composition. The problem with this approach is that you can't always find a convenient place for the tripod where it will be close enough to the subject while not doing damage to the surrounding marine life. If you chose to use a tripod your first concern should be for the safety of the reef. With the tripod or handheld approach it helps to have an extra long fiber optic flash cable with a small coil rather than the commonly used fiber cords for housing mounted flash. I found that the shorter fiber cords tend to get tangled as you are moving everything into position for the shot while a longer cord with less coil will not tangle as much.

When you trigger the flash the aiming light turns off for 1.2 seconds so that it does not appear in the photo and then comes back on for the next shot. This process all takes place in mili-seconds as soon as the flash is detected by the SOFT. I have tested other products that make similar claims but the SOFT is the only one I have tested that succeeded in turning off and on consistently.

With the Sony A-1 I was using ISO settings from 200 to 640 with aperture settings of F/2.8 to F/14 depending on my desired out of focus background. I also used a flash sync speed of 1/400th sec. The Sony A-1 is unique in regard to the high 1/400th sync which results in blacker backgrounds than the common 1/200 & 1/250th setting on most cameras. You will see in the attached photos that you can achieve very pleasing edges between light and dark areas especially when night diving. This is an in-camera process not a Photoshop masking process which is one of the reasons I like the SOFT so much as a lighting tool. Other photos show how the light can be positioned to make a more elongated oval light shape for subjects that are not so two-dimensional.

While the Marelux SOFT is more expensive than some of the other snoots I have own or tested it is the best one I have used to date. I would highly recommend this product to the hard core macro and night diving enthusiast for its ease of use and excellent design. This is a tool that can take your macro from photography to fine art.

Phil Rudin
Instagram

www.marelux.co

www.uwpmag.com

Snoot techniques

by Dan Bolt

Since you are being treated to Phil Rudin's superb Marelux SOFT review in this edition of UWPMag I will not try to cover the same ground – I agree whole-heartedly with Phil's opinion that this is a superbly built and very useful tool that will enhance almost everyone's underwater photography. In short... I'll be sad to send mine back.

So for a slightly different perspective, Peter (UWPMag editor) asked me to write a bit about snoot usage in general. To explore a few ways that snoots can be used beyond the 'brightly-lit subject in a pool of black' style that is all too easy to fall into.

Hide the background

My most favoured snooting technique is to use the tightness of the light-beam to help isolate a subject from a busy or uninteresting background. This can really rescue a shot that otherwise wouldn't work, or wouldn't do justice to the subject.

The nudibranch in photo 1 was crawling amongst a lot of dull weeds that were really not working well as a background. Even shooting wide-open to give some subject separation wasn't really cutting it, but using the snoot to light just the leading edge of the slug and the frond of kelp it was on meant that I could completely eliminate the unwanted background.

It's a similar story with photo 2; the beautiful peacock worm was not easily separated from the weed and rocks just behind it, and you can't get



Photo 1

This nudibranch in photo 2 was crawling amongst a lot of dull weeds that were really not working well as a background. Even shooting wide-open to give some subject separation wasn't really cutting it, but using the snoot to light just the leading edge of the slug and the frond of kelp it was on meant that I could completely eliminate the unwanted background. Olympus OM-D E-M1, Olympus 14-42mm @ 30mm, f/16, iso320, 1/320th, Sea & Sea YS-D1 & snoot

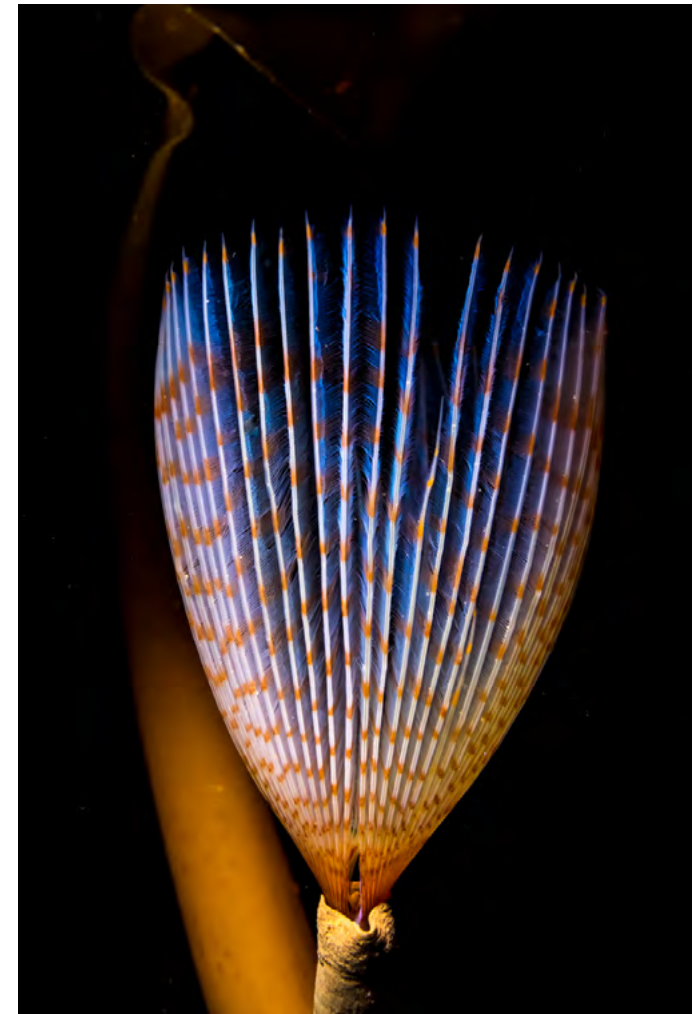


Photo 2

This beautiful peacock worm was not easily separated from the weed and rocks just behind it, and you can't get very close to these things so inward lighting wasn't an option... so the snoot made the image possible. Olympus OM-D E-M1, Olympus 14-42mm @ 30mm, f/11, iso400, 1/320th, Sea & Sea YS-D1 & snoot



Photo 3
I started shooting this lobster with two strobes and I wasn't getting anything special. I decided to flip down my snoot, turn off one strobe, rotate the camera and get closer for a close-up portrait. What a difference the snoot made: the sense of engagement and intimacy in this image is very powerful.
Olympus OM-D E-M1, Olympus 60mm macro, f/9, iso500, 1/320th, Sea & Sea YS-D1 & snoot



Photo 4
It was hard to really get a feel for the menacing stance and spiny carapace of this tiny critter with two strobes – so down came the snoot and using just the one light-source meant I could bring a sense of something more to the scene with strong highlights and deep shadows.
Olympus OM-D E-M1, Olympus 60mm macro, f/16, iso400, 1/320th, Sea & Sea YS-D1 & snoot

very close to these things so inward lighting wasn't an option... so the snoot made the image possible.

Strong directional light

This is an extension of the last technique, having a very strong single light-source can add a sense of menace, purpose, and texture to a scene. Harsh shadows aren't liked by everyone, nor do they suit every subject, but if you find the right use case it can make a dramatic difference.

I started shooting the lobster in photo 3 with two strobes and I wasn't getting anything special, certainly nothing I felt was doing justice to the experience of having this stunning individual mere inches away and completely relaxed with my presence. I decided to flip down my snoot, turn off one strobe, rotate the camera and get closer for a close-up portrait. What a difference the snoot made: the sense of engagement and intimacy in this image is very powerful.

The same was true for the amphipod on the sea pen in photo 4. It was hard to really get a feel for the menacing stance and spiny carapace of this tiny critter with two strobes – so down came the snoot and using just the one light-source meant I could bring a sense of something more to the scene with strong highlights and deep shadows.



Photo 5
Olympus OM-D E-M1, Olympus 14 42mm @ 28mm, f/22, iso200, 1/320th, Sea & Sea YS-D1 & snoot

Blending flash and ambient light

When I want to create a balanced light image I almost always reach for a snoot. I don't need to of course; unsnooted strobes would do just fine. But I find that the larger degree of control I have over which part of the scene is being artificially lit suits my style.

In the UK, where vis is often sub-optimal, it can also cut down on the light reflected from the water (not just back-scatter, but a general

lighting of the water-column) which can give a less natural looking colour to the ambient light.

The nudibranch in photo 5 is shooting up using a snoot. It was very shallow and shooting into the sun which required a lot of strobe power.

Creativity

Snoots can open some different avenues for creativity too. I'm quite enjoying using a coloured torch and slow shutter combined with a narrow snoot to create images such as photo



Photo 6
Olympus OM-D E-M1, Olympus 30mm macro, f/13, iso400, 1/2 sec, Sea & Sea YS-D1 & snoot, blue torch

6. It's not to everyone's liking, but I'm going experiment further. And you can reverse the effect too; by using a white light and colour filter on the snoot.

So back to the SOFT, I'd be remis if I didn't pass on my thoughts from having the privilege of using it for a month. Firstly a few in-use comments: yes you can use it with thick gloves, yes it is big and if you have it centred over your viewfinder you may struggle to get your eye in place (especially for 45-degree viewfinders, or on smaller-bodied housings). You may find that the most

creative/productive method is to have it mounted on your strobe arms, but with your clamps quite loose so you can move it about freely; let's call that 'guided freestyling'.

The accuracy of the guide light is awesome, and don't be fooled in to thinking this is for macro work only. You can still shoot subjects 2-3m away, which is mightily helpful for shy critters or in low vis scenarios.

I have two very, very, small niggles – and really these are barely worth mentioning: firstly the supplied ball mount uses a differently sized

Allen key to the Dock, neither of which were supplied. Secondly, once you attach the ball-mount the SOFT won't fit into the foam-padding of the carry case. There is room for the space to be cut out, and if this were mine to keep I'd do that straight-away, but as supplied you can't keep the SOFT in the case with the ball mount attached.

My final word is a little bit off-task; having used this snoot with its solid Dock/clamp mechanism that is amply up to the job of keeping a very firm grip, I'm actually excited about the possibilities of this 'universal Dock'. The same clamp is available for all of the most popular strobe bodies, and imagine what other gadgets could be added to the dock: diffusers, colour filters, shades, restrictors. I wonder if Marelux are planning a whole suite of accessories to spoil us with?

Marelux responded to Dan's feedback:

We will soon add a tool kit into the package and will look into the carrying case. Also yes, we are producing reflection bowl, and difusers for the dock and are also making an experimental floating device to provide buoyancy to SOFT, as you mentioned its weight.



*Photo 7
Olympus OM-D E-M1, Olympus 60mm macro, f/11, iso100, 1/320th, Sea & Sea YS-D1 & snoot*

Finally, photo 7 was taken using a snooted strobe as a backlight. It took a good deal of positioning of my arms to get it all lined up correctly, but I'm pleased with the result. There must be more subjects I can try this on...

Dan Bolt

www.underwaterpics.co.uk



Over 200 episodes of discussion, news and information for underwater image-makers
<https://www.youtube.com/c/Wetpixel-live>

Marelux 140mm Optical Glass Fisheye Port with Removable Shade

by Phil Rudin

Marelux Precision Inc. is headquartered in California, USA selling U/W photography products manufactured in China. It is owned by several hard core professional underwater photographers and engineers. They assessed the market trends in the 2020's and chose to avoid the dying DSLR market and launch a line of full frame mirrorless camera housings for Canon, Nikon and Sony. Marelux also has two high end video camera housings in the pipeline for Sony FX3 and Alexa Mini LF and Mini with housings for monitors and recorders in the pipeline.

All the Marelux housings are depth rated to 100 meters, offer optional manual flash triggers, vacuum systems, use the same series 5 dome ports and extension systems so you can move between camera brands without needing to change dome systems. Macro ports will vary depending on the length of the lens.

Currently Marelux has housings for the Canon R5 and R6 cameras, Nikon Z6 II and Z7 II cameras and Sony A7R III, A7R IV, A7s III the new A7 IV and the Sony A1. They

have six signature housing colors, Basic Black, Burgundy, Mocha, Oliver Green, Silver Gray, Yale Blue and all of the current housings are available in these six colors.

Full-frame fisheye and fisheye zoom lenses are the overwhelming choice for many underwater photographers doing wide angle, CFWA and WAM photography. With all fisheye lenses the name of the game is getting close to your subject, for me anything beyond about 45cm (18 inches) is reserved for large animals like Whale Sharks and split shoots with large (230mm) ports.

The fisheye zoom lenses have a close focusing distance around 15cm (5.91 inches) and a maximum reproduction ratio of around 1:3. Many of my images have been taken within a few centimeters of the subject with the Canon 8-15mm F/4L which will focus all the way to the 140mm port glass. My takeaway is that the 8-15mm fisheye zoom lens which provides a unique perspective from which to view the underwater world much like an extreme macro lens.

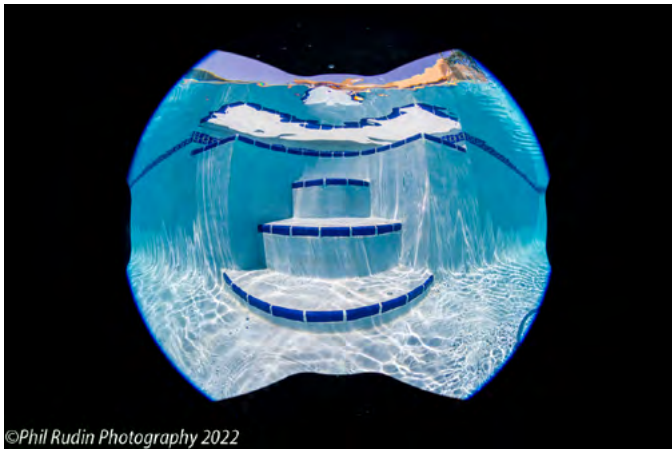
For over six years I have used



8-15mm fisheye zooms with dome ports from 100mm to 230mm and they all have one thing in common. At the 8mm circular fisheye end of the lens they will all vignette if the sun shade is not removed. This means that, when choosing a port for the 8-15 zoom, consideration must first be given to whether the sun shade can be removed at all. Second can the shade be removed while underwater or will it need to be removed before entering the water and lastly what will protect

the port glass if you enter the water without the shade.

Marelux has addressed these issues with the release of their new Marelux 140mm optical glass fisheye



Sony A-1, Marelux MX-A1 housing, 140mm fisheye dome, Canon 8-15mm F/4L fisheye at 8mm with the sun shade in place, bad vignetting

dome port with removable sun shade. The 140mm fisheye port is the most popular port for full frame fisheye lenses because of its small size and travel weight.

The Marelux port has the advantage of using a bayonet mounted sun shade that can easily be removed and reattached underwater. This means you can leave the shade and port cover on when entering the water. While shooting at the 15mm end of the lens the shade can remain on and the shade can then be removed by simply depressing the lock and rotating the shade 90 degrees when using the 8mm end of the lens. I carry the shade over my arm when removed but it could easily be hooked off on a BCD or other secure point.

The Marelux 140mm fisheye port ships in a hard carrying case with a velcro strap to hold the port securely in place. The neoprene port cover can be secured to a D-ring or other attachment while in the water. The port is depth rated to 80 meters and ships with a cleaning cloth and spare O-ring.



Sony A-1, Marelux MX-A1 housing, 140mm fisheye dome, Canon 8-15mm F/4L fisheye at 8mm with the sun shade removed

This port has the Series 5 (5") port mount used for all Marelux housings. The port glass diameter is 140mm, the port material is BK7 crystal glass with a broadband multilayered anti-reflective coating and the body construction is from hard-anodized aluminum alloy.

The port with the shade attached weighs 0.75kg (26.5 oz) The removable shade has a small locking device that when depressed allows the shade to turn 90 degrees and then lift off. To reattach, reverse the process until the shade locks back into place. The shade has white markings that lineup with the dome markings for proper alignment.

The Polycarbonate shade has a recessed lock so that it won't accidentally unlock. I found the shade a bit easier to remove and reinstall underwater than on land perhaps because it was wet.

In the field the Marelux 140mm fisheye port performed as well as any high quality glass port I have used. My tests did not include use with a fixed



MX-A1 housing with the Marelux 140mm fisheye dome, Canon 8-15mm F/4L at 14mm, full frame no crop with the shade in place

15/16mm full frame fisheye. The Marelux 140mm port retails for \$1090.00US. Check the marelux.co web page for the nearest authorized dealer in your part of the world.

Fisheye Zoom Lenses

The Canon EF 8-15mm F/4L USM and Nikon AF-S 8-15mm F/3.5- 4.5E ED Fisheye zoom lenses are both radical in design and exceptionally well suited for underwater photography. These lenses are not new and were designed for DSLR full-frame sensor cameras. Many Mirrorless full frame camera owners have been using these lenses with great success for years with one of the growing number lens adapters now available. These lenses combine both circular (360 degree) and full-frame fisheyes into one lens. Unlike the popular Tokina 10-17mm for APS-C cameras that covers a non-circular range from 180-100 degrees the 8-15mm fisheyes cover a range from 180-175 degrees on full-frame for both

Don't settle for 2nd best



The popular Tokina 10-17mm for APS-C cameras that covers a non-circular range from 180-100 degrees

are the only lenses that combine the two in one making it a unique and more cost effective addition for underwater photography.

Both fisheye zooms offer excellent glass with quality lens coatings, a zoom locking mechanism, AF/MF switch, dust and moisture sealing, removable lens shade and more. Both can be used on sub-full frame sensor cameras and both have a maximum reproduction ratio of around 1:3 on full frame. It is like having two completely different lenses in one. Some find the circular images to be more of a gimmick while others find the round images very appealing.

The Canon 8-15mm F/4L retails in the US for \$1249.00/UK Amazon £1269.00. The Nikon 8-15mm F/3.5 to 4.5 retails for \$1247.00/UK Amazon £1449.00.

Nikon 8-15mm F/3.5 to 4.5 Canon 8-15mm F/4L

round (8mm) and full sensor (15mm) coverage. Using these lenses a degree or two beyond the extreme ends of the lens and the image will spill over the edges of the frame. So best results are at the 8mm and 15mm settings.

Circular fisheye lenses have been around since the early 1900s. Full-frame fisheye lenses started to become popular during the early 1960s. The difference between the two types of lenses is simple, the circular fisheye lens renders a perfectly round image within the center of the 3:2 format sensor while the full-frame fisheye covers the entire frame. Keep in mind that with the circular image you are losing megapixels to the black negative space while the full-frame image takes advantage of the entire sensor. 8mm and 15mm full-frame fisheye lenses are offered by other manufacturers like Sigma but the Canon and Nikon 8-15mm fisheyes

Phil Rudin
Instagram



Film - No Filter,
No White Balance

Digital - No Filter,
Manual White Balance

Digital - 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.

Simple and inexpensive, yet so effective.

www.magic-filters.com

Your smartphone as an underwater monitor?

by Malu Dienst

With the SeaLink from Divevolk it is possible to turn your smartphone into an underwater monitor. How this works exactly, we show in this article.

It doesn't matter whether you have a compact or interchangeable lens camera - as long as you can connect your camera to your smartphone via Wifi, you can use Divevolk's Wifi transmission cable. You connect your camera and smartphone to each other using the normal app from your camera manufacturer, and the SeaLink maintains this connection underwater.

What is needed?

If you already have a SeaTouch underwater housing for your smartphone, you also need the SeaHold mount. A ball head adapter can then be easily attached to the bracket, with which the SeaTouch can be attached to your grip rail or your underwater housing with a clamp.

The SeaLink transmitter comes with a mounting rail. With this rail, the two contacts can be easily

connected to the SeaTouch and your underwater housing. The rail is extremely adaptable and can therefore be combined with most common underwater housings.

The assembly itself is very simple. The SeaHold mount attaches to the SeaTouch 4 Max housing.

With a ball head that attaches to the underside of the SeaHold mount, the SeaTouch housing can be mounted to your underwater housing with a standard clamp.

The scope of delivery of the SeaLink transmitter includes the appropriate bracket to attach the transmitter to the SeaTouch housing and your underwater housing.

The transmitter should be placed on the display window and then the bracket is screwed to your underwater housing with the supplied tripod screw.

The mount is adjustable in size and can therefore be combined with most underwater housings.

Depending on the underwater housing and camera, your smartphone and camera may have to be inserted



into the housing before you attach the transmitter.

The connection between smartphone and camera depends entirely on the camera manufacturer's app. Each manufacturer has its own smartphone app: Sony – Imaging Edge; Olympus – OI.Share; etc

In the following example, a Sony

camera is connected to an Android smartphone via the Imaging Edge app.

First of all, the correct setting must be made in your camera. In the Sony menu you will find the WiFi connection in the "Network 1" tab.

You can then connect your smartphone to your camera in the Sony app. The display of your



smartphone then shows the image section that the lens of your camera takes.

Operation via app

How well the transmission between the smartphone and the camera works depends on many different factors. If the transmission runs smoothly above water, this is a good indication that the transmission will also run stably underwater.

How much the camera can be controlled via your smartphone depends on the functions of the camera app.

The Olympus app for the TG6 is for example designed in such a way that even the focus point can be moved on the smartphone. The screen of the TG6 can no longer be seen well in the underwater housing due to the transmitter, but that is not necessary at all.

All the necessary settings can be viewed in the app and you can even

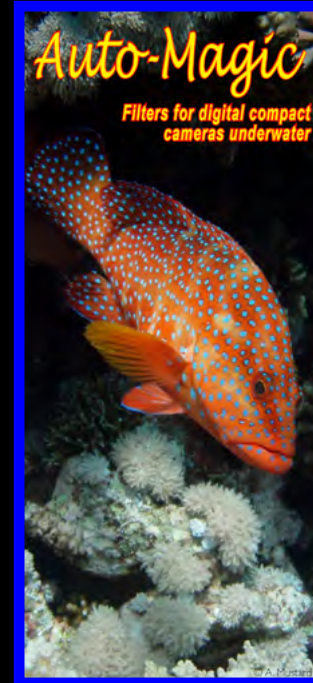
press the shutter button. So for the TG6, for example, using the SeaLink transmitter is a real upgrade.

The app from your camera manufacturer ultimately decides what added value the SeaLink transmitter has for your smartphone-camera combination. So before you buy the SeaLink, it makes sense to check which functions you can control on your camera via your smartphone.

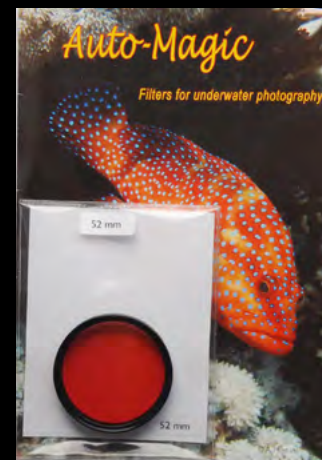
Divevolk's WiFi transmission cable ensures that the transmission continues underwater. In our test, we were particularly impressed by the Olympus app and the TG6. In this combination, the smartphone has real added value as an underwater monitor. In the test with the Sony A9, the smartphone served more as an enlarged display, and all settings still had to be made via the camera.

Malu Dienst
www.uwfoto.net

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 £25.



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

Simple and inexpensive yet so effective

www.magic-filters.com

Black Backgrounds

by Anita Verde and Peter Marshall

If you're relatively new to underwater photography, you're probably wondering how to get that striking black background behind your subject. Depending on the style of photograph you're trying to achieve, a black background can make your image pop and bring out your subject's unique character and personality. But you'll need more than just the right camera settings to achieve it. Here's what works for us:

Choose your subject carefully

The most important thing in achieving a black background in your underwater photographs is to have as much open water in the background of your subject as possible. A subject that is positioned on top of a rock or piece of coral with a good amount of open water behind it is ideal, but it's often difficult to find a subject perfectly positioned in this way. If your subject isn't positioned quite as you'd like, you can also try shooting upwards. Getting below the subject (if possible) and shooting up into the blue will also yield good results.

Strobe position

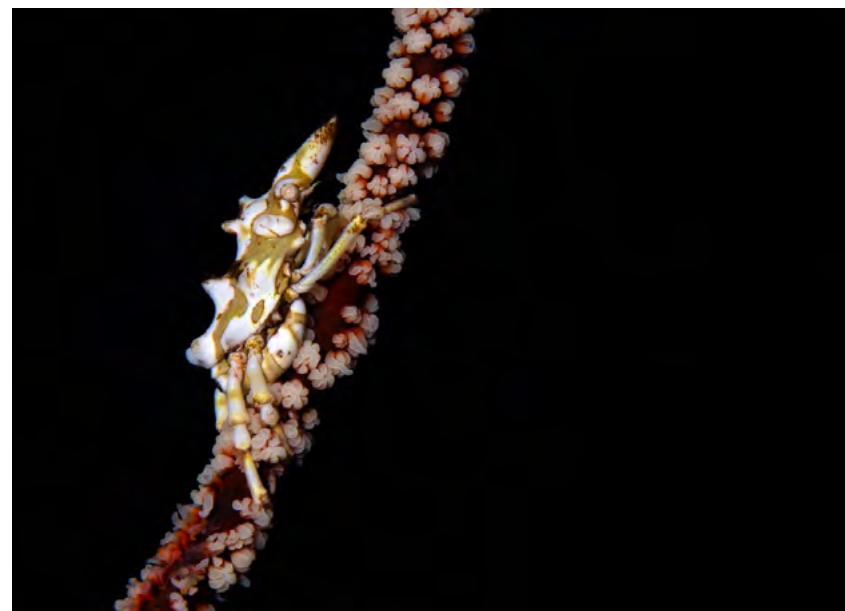
If you happen to have a background behind your subject (which is often the case), your strobe positioning can be used to help darken the background. Moving your strobes to the side of your housing and pointing them slightly inwards towards your camera housing and port will help achieve this. The strobe positions of 10 and 2 O'clock work well, just make sure that your strobe light isn't hitting your port too directly, as this will cause reflections on your lens and in turn destroy your image.

If you happen to be shooting with only one strobe, then try positioning it above the camera, but angle it in towards your camera's housing. You'll be surprised as to what you can achieve with a bit of trial and error and slight adjustment to your strobe position

Camera settings

Regardless of the type of camera you are using; compact, micro four-thirds or full frame DSLR, you'll want to make sure you're using a fast shutter speed. The best speed is usually around 1/200th - 1/250th, which is around the sync speed of most strobes.

Using a low ISO and closing down your aperture will also help. This, combined with a



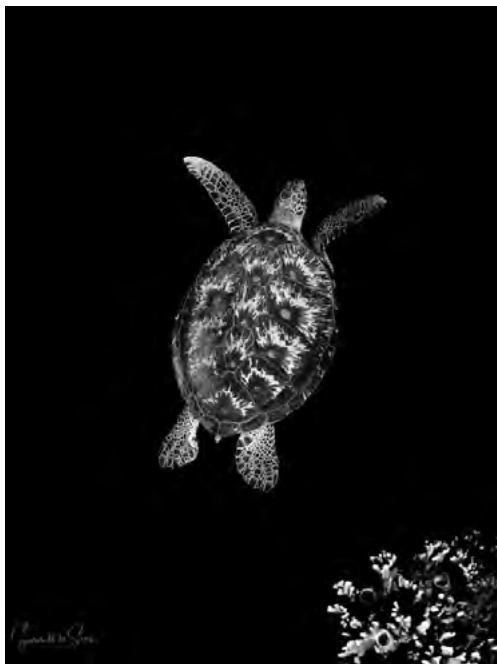
fast shutter speed will block out any ambient light - especially helpful if you're on your first dive of the day and you are shooting alongside bright ambient light.

The time of day

Most cameras will struggle to produce black backgrounds in very bright conditions, so shooting black backgrounds on early morning dives when ambient light is at its brightest can be challenging. We find it far easier to achieve a black background when shooting; on deep dives, in the late afternoon or on a cloudy day. At night is even better for obvious reasons! We always choose to shoot wide angle on our first dive for the day when the light is at its best, and move to close focus, macro and super-macro shots for afternoon and night dives.

Respect your subject

We don't need to tell you that throwing a Spanish Dancer into the water column is not on. So if your subject is not positioned perfectly and you can't achieve a black background by using your strobes and camera settings then just be content to move on and photograph something else. Touching, harassing or moving an animal for the perfect photograph has no place in underwater photography.



And finally

Remember, not every shot needs to have a black background, and although they are visually striking, the technique can often be over used. Photographs that are more realistic and display what you actually saw with your naked eye are also very nice. So if the black background is not working for you, just open up your aperture, slow down your shutter speed, and try a blue or green background instead.

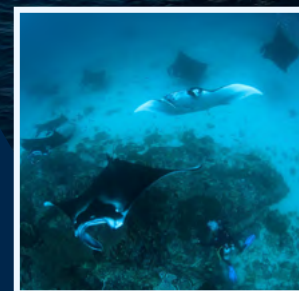
Anita Verde
and Peter Marshall

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Why do Whale Sharks Swim to Cancun for a Spring Break

by Dr. Simon J Pierce

Mexico, specifically the area north of Isla Mujeres on the Yucatan Peninsula, is the seasonal home of large numbers of whale sharks over the summer months. It probably offers the world's most consistent sightings of whale sharks for tourists over the northern hemisphere summer.

But why are they there? And what do we know about them? As one of the world's few specialist whale shark researchers, hopefully I can help provide some answers.

Whale sharks are immensely popular with divers. It's easy to forget that seeing a whale shark was, until recently, a once in a lifetime event. Only 320 sightings had ever been documented until the 1980s, even though these huge sharks are distributed from New Zealand to New York.

It turns out we just didn't know where to look.

Tropical surface waters are a biological desert. Sure, coral reefs are incredibly rich in life, but they're isolated oases in a literal sea of nothingness. Whale sharks eat mostly

plankton and, as the world's largest fish, they eat a lot of plankton. Most of the areas where seasonal whale shark tourism has developed, such as Ningaloo Reef in Australia or Mafia Island in Tanzania, host some major biological event that rings a loud dinner gong for whale sharks.

Why do whale sharks come to Cancun?

It's all about the fish eggs. Little tunny, a small tuna species that can produce up to 1.75 million eggs each breeding season, spawn offshore to the north of Isla Mujeres.

This relaxed little island, just a short ferry ride away from the mega-resorts of Cancun, draws in its own annual migration of marine tourists and underwater photographers hoping to see the whale sharks in clear, blue, oceanic water.

Although local fishers have known about this annual phenomena since at least the early 1990s, scientists and tourist operators only caught on more recently.



Whale shark feeding in blue water off Cancun, Mexico

Rafael de la Parra, a Mexican whale shark scientist, first laid eyes on this offshore aggregation in 2006. Whale shark tourism was already burgeoning off Isla Holbox, an island off the north coast of the Yucatan, where whale sharks and manta rays often feed in shallow, green, plankton-rich waters close to shore.

Rafael and his collaborators organised five flights further out to sea that year, during which 480 whale sharks were recorded.

That changed everything. Repeated flights over this area –





known as the Afuera, which means “outside” in Spanish – have documented up to 420 sharks in a single survey. It is, by far, the world’s largest known whale shark aggregation.

Figure A was taken from approximately 600 m altitude and shows 220 whale sharks and 4 tourist boats. Figure B was taken from lower altitude and shows 68 whale shark...

Aerial photographs of whale sharks feeding at the Afuera aggregation in August 2009. Figure A was taken from approximately 600 m altitude and shows 220 whale sharks and 4 tourist boats. Figure B was taken from lower altitude and shows 68 whale sharks, 1 tourist boats and 2 pairs of tourists snorkeling.

One of the things which changed was the management requirements. Whale sharks are a protected species in Mexico, and the government created a special Whale Shark Biosphere Reserve in 2009. Unfortunately, legislation couldn’t keep up with the scientific results, and the Afuera zone was not included in the reserve.

Whale shark research

I’ve been studying whale sharks since 2005, initially in Mozambique and now around the world. Rafael, his wife Beatriz and myself were all invited to participate in a research project off Utila, Honduras.

Learning more about their work in Mexico, I was determined to check out this amazing natural event for myself. Fortunately, an opportunity presented itself not long afterward.

From 2013-16 I helped to host groups from Aqua-Firma, a specialist dive travel and ecotourism company, on Isla Mujeres each summer. Dr. Chris Rohner, my co-investigator at MMF, took over in 2017-19 (MMF Senior Scientist Dr. Clare Prebble is going in 2021).

We joined Rafael during peak whale shark season (July / August) to conduct research, take photos, and generally revel in the presence of the hundreds of sharks that use this area as their seasonal home.

Every whale shark has a unique pattern of spots. It makes each individual identifiable, in much the same way as a human fingerprint. A photograph of the flank can be used to identify any whale shark, anywhere in the world. However, that matching effort is a massive job. To speed the process, automation is required.

A serendipitous friendship between a software developer and astrophysicist, both of whom were interested in marine conservation, led to a solution. An algorithm used in the processing of Hubble Space Telescope images was adapted, and whale shark spots were used in the place of stars.

The Wildbook for Whale Sharks online database was born.

As of 2020, there are more than 10,000 individual whale sharks on the database. Photo submissions from both researchers and the public allow the movements of individual sharks to be tracked around the world, population sizes to be calculated, and increases or declines in sightings to be identified and investigated.

The trillions of tuna eggs on the menu here may draw in whale sharks from all over the Atlantic. The Yucatan coast, including both the inshore and Afuera sharks, was the first region in the world to reach 1,000 identified whale sharks. Fully 75% of identified whale sharks from the Atlantic Ocean have been sighted in this area. It has to be one of the highest densities of sharks occurring anywhere in the world.

The little tunny spawn overnight, and their eggs float gently upwards to carpet the surface. The sharks literally swim around vacuuming the eggs up, for hours at a time.

Once the days spawn has dissipated, the sharks switch their behaviour and swim deeper overnight. It may be that the sharks are dissipating heat following hours of swimming and exposure to the sun in the hot surface water.

Back of the envelope calculations reveal that an average-sized whale shark, surface feeding for 11 hours, would ingest 142.5 kg of tuna eggs. That represents around 43,000 Kcal, equivalent to over 8 kg of Dairy Milk chocolate (I worked it out. And now I want chocolate.)

Shifting to cooler water overnight may also slow their metabolism, helping to maximise the absorption of this massive meal.

With that much food on offer, it's no wonder that the sharks stick around. Rafael and his colleagues tagging work has found that some individual sharks stay in the area for up to six months each year, with most having finally left by late August to mid-October.

Research from 2003-2012 has also found that many sharks visited the Afuera repeatedly, with some returning for six consecutive years.

Where do the sharks go?

Well, it seems to vary between individuals. Rafael and co-authors recently published a study on 31 satellite-tagged whale sharks from Mexico, which dispersed into the Gulf of Mexico or the Caribbean Sea.

When they moved away from land, and their reliable supply of tuna eggs, the sharks' behaviours changed as well.



Because whale sharks are fish, they don't have to come to the surface to breathe. Although most of their time was spent near the surface, from 0 to 200 m depth, one of the tagged sharks remained at more than 50 m depth for three days straight.

Occasionally they dived much deeper, and the maximum dive by one of these sharks, 1,928 m, is the deepest recorded from a whale shark to date.

It's not easy to establish why the sharks are swimming so deep. There are a few potential reasons, or it could

be a combination of several. A few clues were apparent.

Rather than occurring randomly, the deepest dives often occurred around sunrise and sunset. Increasingly, we suspect that whale sharks forage on deepwater zooplankton, which typically migrate between the surface at night and a few hundred metres deep during the day.

Deep dives could also have a navigational function. Dawn and dusk are when the earth's magnetic field intensity reaches its peak, and – because the geomagnetic intensity

gradient also increases with depth – these dives could help to improve their ability to determine their location.

Absent sharks & celebrity gossip

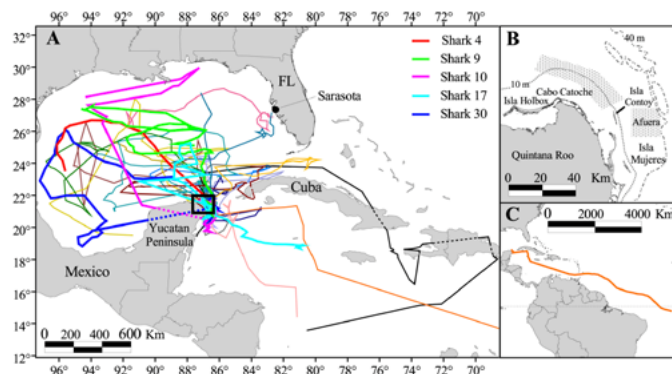
Whale sharks are born at around 50-60 cm, and may grow to 20 m. The Afuera aggregation is composed of mostly (72%) male whale sharks, ranging in length from 2.5 to 10 m.

The sharks present are predominantly juveniles: not babies, but few are reproductively active.

Where is the rest of the population? Well, somewhere else. Genetics work has shown that Atlantic whale sharks are a separate subpopulation to those found in the Indian and Pacific oceans, so we assume that the adults – and the majority of females – may live in the open ocean.

There isn't a great deal of evidence to support that; it's more that they are rarely seen along the coast.

One tagged female, thought to be a young adult, made a huge migration from the Afuera zone, across the equator into the mid Atlantic. This 7,000 km swim, at an average speed of around 50 km per day, is one of the largest ever recorded for a whale



The most probable tracks for whale sharks tagged in the eastern Gulf of Mexico (A), including “Rio Lady’s” track (C)

shark.

This celebrity shark, now called Rio Lady, has been seen back at the Afuera since – in fact, I've seen her each year since I first went there in 2013 – so this was a truly huge loop.

Rafael is fairly confident that she was pregnant when she was first tagged, although it is difficult to tell, so this single track is tantalising in that it could suggest that whale sharks give birth in the mid-Atlantic. Hopefully further work will provide more evidence.

Future challenges

It is a huge privilege for us to be able to swim with so many of these threatened sharks, and we all need to respect that the sharks use the Afuera for their own purposes. Their huge



A large container ship moving through the whale shark feeding area off Cancun

calorie intake of tuna spawn may help to fuel their movements for months afterwards.

The accessibility of the Afuera to day-trippers from Cancun means it does get crowded on the water, particularly during Mexican holidays, although the tour boats tend to be gone by midday.

It is a shame that the Afuera site was only properly delineated after the Whale Shark Biosphere Reserve was created, as this means the primary aggregation site is poorly protected.

Huge shipping vessels hug the tip of the Yucatan, coming dangerously close to the whale sharks and tourists. Although it is difficult to quantify, many whale sharks are likely killed on impact.

This shipping lane needs to be moved further offshore, for both the sharks and tourists safety.

Rafael, his wife Beatriz and their colleagues have formed a Mexican non-profit, Chooj Ajauil (Blue Realm in Mayan) to further the protection of this area.

After seeing up to 250 sharks in a day myself, I can truly say that this is one of the world's most amazing wildlife experiences. The Afuera may be the best site in the world to see and photograph whale sharks.

Dr. Simon J Pierce

is a co-founder of the Marine Megafauna Foundation, where he leads the global whale shark research program, and an award-winning marine wildlife photographer

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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

Enter the Dragon

by Anita Verde and Peter Marshall

Like many people, we hadn't really thought much about diving in our local temperate marine environment. Cold water, kelp and often low visibility didn't really sound appealing when compared to the clear, warm, tropical waters we so regularly dive. Yet in the green shallow waters just over an hour from Melbourne, Australia; you'll find one of the most incredibly fascinating creatures, the Weedy Sea Dragon (*Phyllopteryx taeniolatus*).

Only found in the relatively shallow coastal waters from Port Stephens in NSW, through Victoria, Tasmania, South Australia, and Geraldton in Western Australia, these captivating animals are every bit (if not more) as wonderful as any species we've seen in the tropics.

The best place to see these guys in Victoria is no doubt the local pier in the small hamlet of Flinders, a mere 100 km from Melbourne's CBD. And while the pier is also home to cuttlefish, smooth rays, crabs and plenty of other critters, the real stars of this dive are the dragons. So much so that the BBC's Natural History Film Unit spent three weeks at Flinders Pier in January 2016 to get

footage of the dragons for Episode 5 of Blue Planet II.

The pier has a grassy bottom which is why it's the perfect home for the dragons. There are dozens of dragons here, and during the right season you might even see the males delicately carrying their eggs around. Like their close relative the pipefish, the male dragons take responsibility when it comes to child rearing. Each year in the spring, an elegant dance takes place, where the female's bright pink fertilised eggs are transferred to the male's tail. He will carry these eggs for around 8 weeks until the fully formed baby dragons hatch and venture into the green seas to fend for themselves by taking shelter in the sea grass.

Often invisible to the untrained eye, finding these guys for the first time can be a little challenging, but as soon as you've spotted your first one, more and more just seem to magically appear.

You'll often find them hovering around fish larvae and plankton, constantly feeding and often unaware of your presence. Given they don't have a proper stomach, they have to constantly forage for food, sucking



their meal through their tiny mouth located at the tip of their snout.

While the pier can be dived at any time, it's best avoided in strong Easterly or North Easterly winds, as when the sea is rough the surge and subsequent poor visibility can make it unpleasant. Visibility will of course be at its best when there hasn't been recent rain. You can enter and exit from one of the many ladders on the pier itself, or from the





shore - depending on the tide. This is a shallow dive (around 5 meters) even when the tide is high, so it's best dived on an incoming tide if possible. See Tides Chart or WillyWeather to plan your dive.

When diving, practice good buoyancy and be careful to stay off the weedy bottom as this is the dragons habitat. The pier's pylons also have lovely growth and are home to many other critters, so be careful not to kick the pylons as you move throughout the dive.

As with most piers in Australia, fisherman are often present, so be sure to take your dive knife to de tangle yourself from potential hazards like fishing line, hooks and lures. Be sure to stay underneath the pier at all times to avoid fishing and boat traffic, and be mindful when surfacing. If you have a dive flag to alert people of your presence that's even better!

The water temperature in the summer months ranges from 16 - 19 degrees. We dived in late January in 19 degree water temperature with a 7.5 mm suit, hood, boots and gloves.

The diving culture in the region is very independent, so if don't have your own tanks or equipment, or you're a visitor, you'll need to hire these. Both the Scuba Doctor and Extreme Water Sports are open from 7.30 am in the summer months and

can provide you with everything you need, including tank and equipment hire.

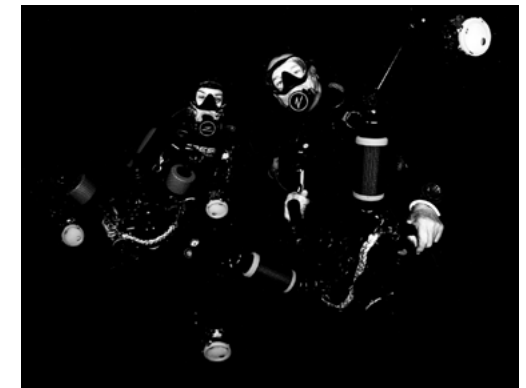
So that's it. Don't let the logistics and cold water turn you off, because once you encounter these beauties you'll be totally in love! And it's a great little side trip to add to your next visit to Melbourne!

**Anita Verde
and Peter Marshall**

www.summitstoseasphotography.com

www.scubadoctor.com.au

www.xtremespots.com



*Photo credit: Julia Sumerling
Mike Ball Dive Expeditions*

Wakatobi Top Ten

By Wayne & Pam Osborn

A remote outpost fringed by the Banda and Flores Seas, Wakatobi Dive Resort lies at the far-flung southeast tip of the Indonesian island of Sulawesi. Nestled in the Tukang Besi archipelago, the resort indulges access to the waters and reefs of the famed Coral Triangle. These fringing coral reefs and atolls host our planet's richest marine biodiverse region with 3,000-plus fish species and at least 750 coral species.

Wakatobi's geography of seamounts, miles of precipitous wall dives, and jutting reef platforms present a huge spectrum of diving options and an endless selection of both macro and wide-angle subjects. The underwater photographer is spoiled for choice. Among the dozens of dive sites, picking out a top 10 is an impossible task, but here are my personal favorites.

1. The Zoo

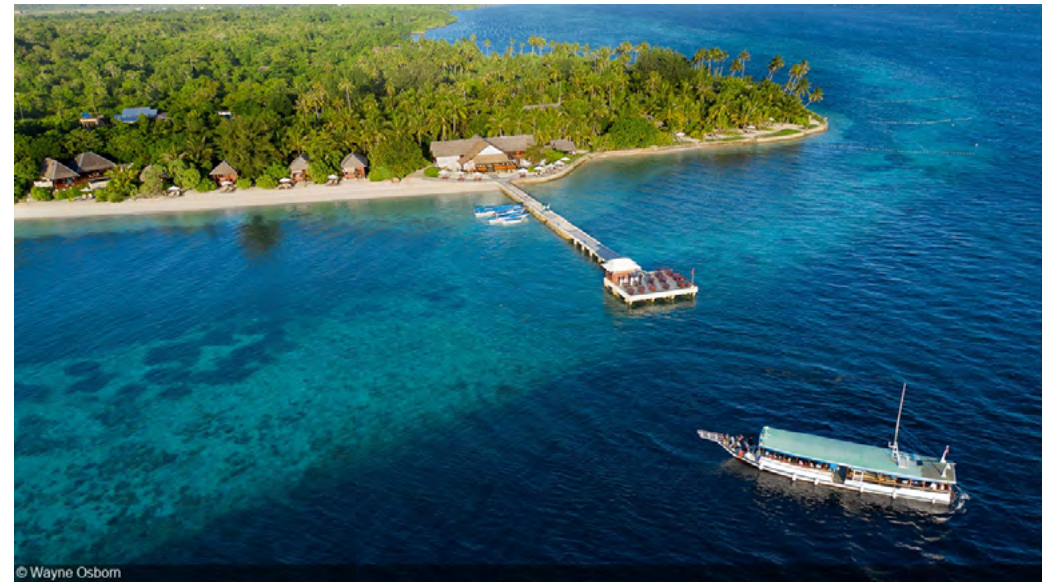
The Zoo is a horseshoe-shaped bay just over a nautical mile east of the resort. The reef breaks into sandy patches in the shallows and the mooring is in five metres. Extensive beds of staghorn, plate and Pavona (potato) corals dip downwards to

100-plus feet. The name is a bit of a giveaway. Expect to see a myriad of species in the clouds of fish hanging out. Pelagics such as blue trevally regularly roam past and the staghorn hosts numerous species of cardinalfish. It's also an outstanding night dive.

Tip: The Zoo hosts many cleaning stations with fusiliers, sweetlips and goatfish lining up to be serviced. A little patient hanging out can be rewarding for portraits, but remember those being cleaned are vulnerable—move in slowly to avoid shutting down the action.

2. Teluk Maya

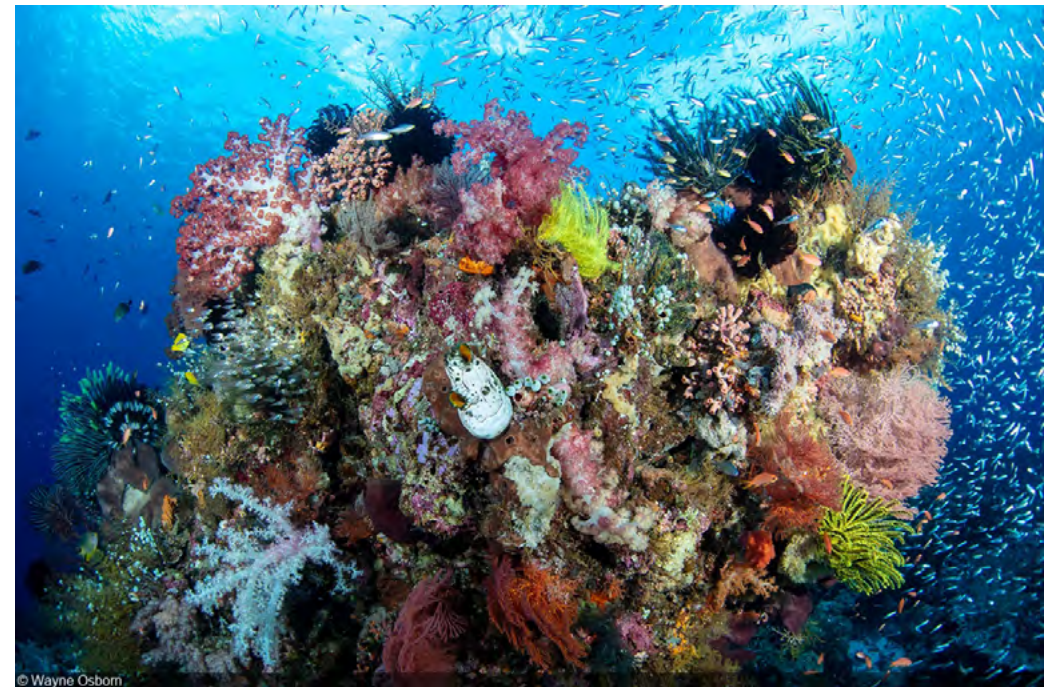
Teluk Maya is on the north shore of Lintea Island and about two nautical miles from the resort. An amphitheater of reef encircles a large oval sand patch, which slopes from 45 to 75 feet. It is a well-protected dive site and also ideal for night diving. The mooring is set at the reef edge in 45 feet. It's a surreal experience to navigate the bizarre maze of coral stacks fringing Teluk Maya. The eccentric avant garde painter Salvador Dali would have been right at home in this unique landscape. Fairy and



© Wayne Osborn

Guests arrive at Wakatobi Resort to savor some worldclass diving

The 40-foot bommie and juvenile fusiliers, shot with a 8–15mm fisheye lens at 15mm



© Wayne Osborn



Wakatobi offers easy access to breathtaking dive sites—and photo opportunities

flasher wrasses can be found on the coral rubble. Skeleton shrimp, peacock razorfish, mantis shrimp, stargazers, saddleback anemonefish, and pegasus seamoths all call the sand flats home. The shallow reef and seagrass meadows are well populated with wrasses, parrotfish and goatfish.

Tip: My typical dive profile here is to drop straight to the sand to see who might be about. I then skirt the bommies and reef on the deep edge before a leisurely ascent through the coral stacks to the fish life on the reef platform.

3. Dunia Baru

Dunia Baru translates from Bahasa as “New World” and is indeed a world of its own with a coral dense reef platform, sandy patches and large coral bommies. The mooring is in 40 feet, where the sand patches begin. Staghorn corals dominate the reef top providing shelter for many cardinalfish species, including pyjama cardinals. Shrimp gobies with their burrow cleaning shrimps are abundant on the sand. Pelagics and bump-headed wrasses regularly swing by. The sheltered topography also makes it an ideal night dive with mantis



Bluefin trevally hunting on the reef edge

shrimps and crustaceans active on the night shift.

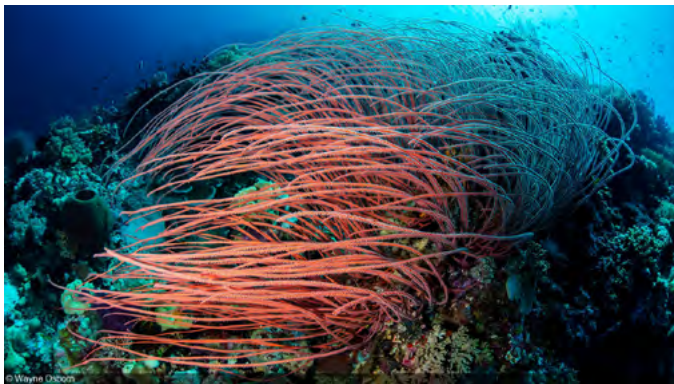
Tip: If flasher wrasses are your thing, the coral rubble at 65 feet is home to these tiny and frustratingly speedy extraverts. They will test your reaction time and challenge your camera’s autofocus. If you are prepared to invest some time, the images can be rewarding.

4. Roma

Roma is a seamount a few hundred yards off the western tip of Tomia Island and three nautical miles north of the resort. It is well

known for the large Turbinaria coral roses at 50 feet. The mooring is on shallow reef in 16 feet. Like The Zoo, clouds of fish compete for water space. Colorful bommies work well for wide angle. Roma also presents great opportunities for fish portraits and macro work. The intense fish activity on the reef top provides free decompression entertainment at the end of a dive.

Tip: Reserve at least one dive here to rise off the seabed and shoot some midwater wide angle. Barracuda and schooling black snapper are common along with the dense clouds of reef fish.



Red whip coral at Galaxy

5. Blade

This dive is a must-do on a trip to Wakatobi. The aptly named Blade is a narrow seamount rising from 200 feet with three pinnacles connected by saddles. It's eight nautical miles west of the resort, 650 feet long and no more than 23 feet wide, making for a unique visual experience. It's possible to explore all the three pinnacles and the connecting saddles in one dive. The pinnacles rise to 16 feet and the tops of the saddles drop to 65 and 80 feet. There is often current here, which has facilitated the growth of large *Acropora* table top corals.

Tip: By all means, run yourself ragged getting the wide shots this unique location offers, but don't forget it's also great for fish action and macro work. In addition, Blade is one of the few hangouts for the exquisite redfin *Anthias*. I have spent an entire dive with them at 16 to 20 feet.

6. Conchita

Conchita has one of my favorite deeper water bommies at 90 feet. Just west of The Zoo, this dive site is a series of reef spurs and sandy bays dropping to 100 feet. The reef edge runs down to 50 to 65 feet.



The 60-foot bommie, luxuriant reef at its best, shot with the 8–15mm fisheye at 8mm

Tip: Whilst you can shoot fish portraits and macro here, to me it's more of a wide-angle dive. A little current here also helps in enjoying the extent of the outstanding marine topography.

7. Starship and Galaxy

Starship and Galaxy are adjacent wall dives on the Sawa reef platform. Like all the wall sites, you can work at any level you like. Both these sites have reef platforms at decompression depth and intense fish activity to while away your nitrogen load.

My favorite story on the value of working with a knowledgeable guide comes from a dive on Starship with Muji, who has worked with me for a number of years and knows my interests in the



A giant frogfish at 65 feet

less common fish species. Muji spotted a shy pair of gilded triggerfish at 110 feet. Unfortunately, we spooked the female. Waiting for her to return would have sparked an argument with my now flashing dive computer. We returned to the same location the next morning, swam down well away from the wall and came up below them for a successful encounter. The guides' knowledge and their understanding of behavior is invaluable.

Tip: Ensure your guide knows your photographic objectives and let them get on with the job in hand. If you can swing it, a private guide is a huge advantage.



Looking down on a pinnacle

8. Sawa Utara and Magnifica

This is another of the paired Sawa reef platform wall dives. Large Gorgonia, sea whips, soft corals and sponge colonies predominate with deeper caverns and canyons refreshing the topography. I tend to drop down to the 100 foot range and explore the caverns in the early part of the dive and then work my way up the reef face.

Tip: I often ask my guide to check the water visibility before committing to wide angle or macro. Nothing beats an in-water assessment. If I am shooting wide angle, particularly fisheye, I often hand my

camera to my guide so he can look through the lens to appreciate just how wide the view is. I ask the guide to stay behind me (I have enough trouble keeping my own fins out of the shot). This helps enormously in keeping unwanted bubble streams out of images.

9. Fan 38 East and West

These adjacent wall dives are on the northern face of the Sawa reef platform and about a nautical mile south of the resort. It's a mixed topography of caverns, canyons, sloping walls and sandy patches. The name harks back to the olden days



A broadclub cuttlefish at Sawa Utara

of film when a photographer arrived at frame 38 on a 36 exposure roll of film. For those who may recall those days, it meant the film was not advancing through the camera! Apart from walls festooned with colorful soft corals, expect heavy fish traffic. Nudibranchs and flatworms are also well represented.

Tip: Even if, like me, you rely on experience to set your strobe exposures manually, check the histogram regularly to make sure you have got it right. It's always surprising how many stops a bright sand background impacts versus open water.

10. The House Reef

Wakatobi's house reef is really my wife Pam's preserve, as she has spent over 1,000 hours freediving here and photographing its diverse marine life. In fact, she has photographed 364 different fish species just on the house reef. It is a multidimensional ecosystem with extensive sand and seagrass meadows that yield to the reef platform and finally the blue void of the vertical drop-off. Pelagics including trevally and barracuda are regular tourists, along with large wrasses and parrotfish. The shallows are nurseries for a multitude of species. Blennies and gobies find



Home for a blenny. No space in coral is ever wasted

protection and shelter in the corals. while annual rainfall is many times lower than the average for Indonesia. Expect sunshine on most days and humidity levels only around 65 to 75 percent.

Diving Conditions: The coolest the water gets is in the latter half of August, with a minimum temperature of 78°F (26°C). Visibility usually averages about 100 feet and is not affected by rain, as there are no rivers or lakes bringing sediments.

Entry Requirements: Citizens of most countries can purchase a 30-day visa on arrival, which costs about \$35 (500,000 rupiah). There is an

Wrasses ramble the reef including the rock movers, which turn over coral boulders in their quest for food.

Octopus species here include the larger day octopus, white-V octopus and the smaller blue-ringed and algae octopuses. Their cephalopod cousins, broadclub cuttlefish, also patrol the reef. Moray eels are well represented, from the giant moray to the exquisitely patterned snowflake moray. Green and hawksbill turtles laze on the wall ledges. The house reef is also a convenient and outstanding night dive—it's a very different world once the night shift takes over.

Tip: The reef top is definitely portrait and macro territory, while wide angle is certainly an option for the reef wall. Don't miss out on a night dive here.

Planning Your Trip

How to Get There: Wakatobi makes it easy to get to their world-class reefs: You just need to get yourself to Bali and it all happens seamlessly from there. Wakatobi's concierge folks meet you at the airport for a VIP run through customs and immigration. You may need to stay overnight in Bali as the Wakatobi private charter flight departs early morning.

Luggage is carefully labelled and respectfully handled, and the weight limits are generous taking into account the needs of divers and photographers. Just over two hours from take-off and you land at the resort's purpose-built airstrip on Tomia Island in southeast Sulawesi. It's a 20-minute boat ride from Tomia Island to Wakatobi's jetty. Lunch awaits after your personalised check-in and briefing. Luggage will be delivered to your room in time for you to prepare for your first dive.

When to Go: Wakatobi is a year-round destination. Temperatures range between 78°F and 86°F (26–30°C),

international departure tax of 150,000 rupiah (approximately \$15), payable in local currency.

Wayne Osborn
wayneosborn.online

www.wakatobi.com

Dive
Wakatobi



Pam & Wayne Osborn

Wayne and Pam Osborn's latest book is called Dive Wakatobi. The free book describes 24 of the dive sites found here and boasts over 320 pages of color photos, including fisheye, wide-angle, portrait, macro and aerial images.

The Australian underwater photographers know Wakatobi's dive sites better than almost anyone else. Wayne has done more than 550 scuba dives on Wakatobi's reefs, while Pam has spent over 1,000 hours freediving the resort's house reef.

<https://books.apple.com/gb/book/dive-wakatobi/id6443244301>

Book Review

Beneath the Surface

by Attilo Kaszo

by Peter Rowlands

Since I started publishing the free online, downloadable magazine Underwater Photography in 2001 little did I realise at the time how perfect the timing would be; conventional film was being overtaken by digital imaging but the learning curve was quite steep and I think the magazine provided much appreciated support to readers as conventional underwater photographers came to terms with this new, but exciting technology.

But even less did I intend that fascinating people, whom I had never met, would be willing to let me publish their images and stories without financial gain; a gesture of support in return, I guess, and one which has enriched my underwater photographic life for over two decades.

I'm sure you've guessed by now that Attila was, and still is, one of those underwater photographers who contributes to the magazine and he has been easy to work with, amenable to suggestions and always provides articles which work on two levels - entertaining the eye and nudging the brain.

Submissions to the magazine are usually a text file with about a dozen images; that gives me enough to choose from, so over the years I've not seen that many of his images but those that I have, have always been 'a cut above'.

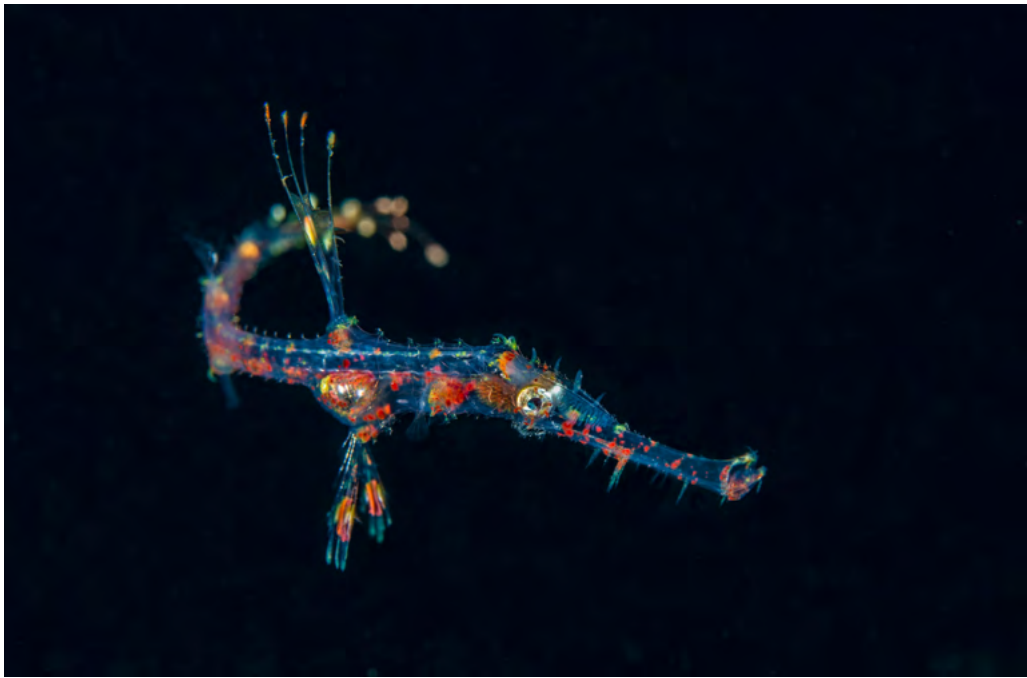
To receive news that Attila plans to publish four books of his career's work and that the first would contain over 160 images in true 'coffee table' style was joy to my eyes but then to be asked to write this Foreword was indeed an honour.

I referred earlier to Attila's submission images as being 'a cut above' and let me try to explain. The digital photography world gives us an almost unlimited number of shots at our disposal; no longer just 36 exposures on a roll of film. On land this wasn't really a problem;

Galapagos Shark (Carcharhinus galapagensis) swimming with the late afternoon sun behind it. This tactic gives the shark an advantage when it's hunting. Its prey has more difficulty in seeing it approach.

Lord Howe Island, NSW





A juvenile Ghost Pipefish emerges from the ocean depths during a “black water” dive off Moalboal. Black water dives are essentially night dives in deep offshore water. You never know what may appear! There is added difficulty in photographing in these conditions, mainly due to the often fleeting subjects and the quick response required to focus the camera on the target, which in most cases has an aversion to bright torch lights.

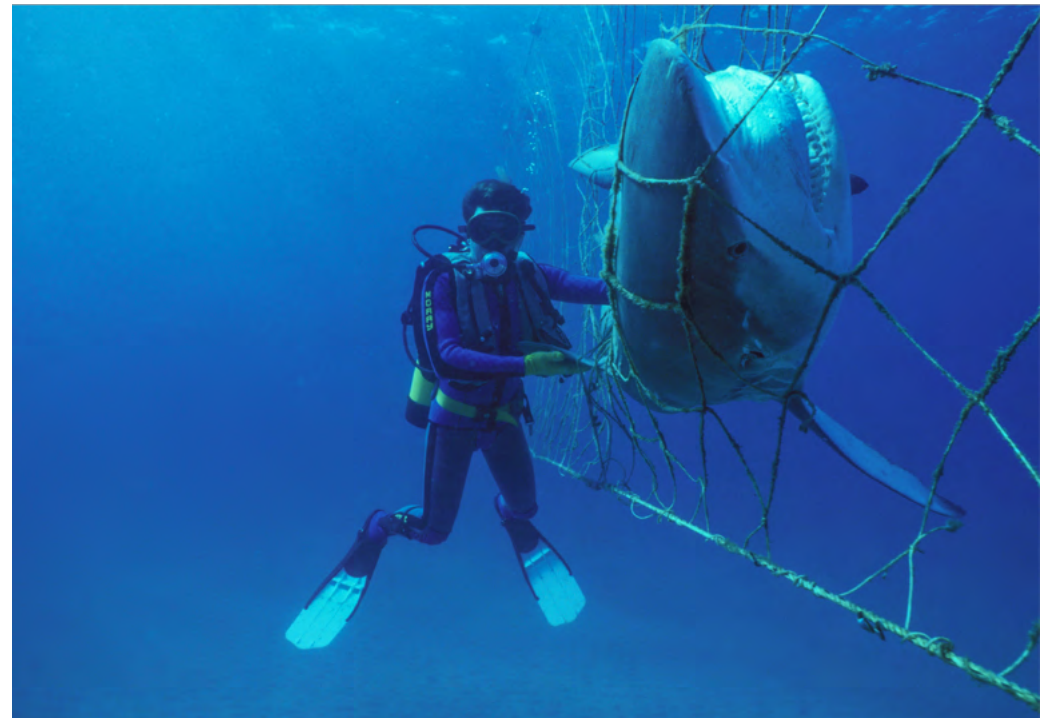
Moalboal, Philippines

Humpback Whales with calfs take refuge around South Pacific Islands on their way north to warmer tropical waters to avoid the harsh Antarctic winter.!

Foa Is. Ha’apai, Tonga

Life and death for any creature caught in a shark net. These indiscriminate killers are responsible for killing Turtles, Dolphins, Whale calves and many other marine animals that have the misfortune of encountering them. In this case it was a 3.6 metre Bull shark. There is NO scientific evidence to support the theory that shark nets prevent shark attacks!

Kirra Beach, Kirra, Qld





Marine worms coming to the surface to mate, during a “black water” dive. At first glance it appears that it’s one creature reflected, but in fact it’s a pair mating. Santander, Philippines

simply rewind the exposed film and load another 36 and off you go, but underwater, where your time is very limited and there’s no way to change rolls, the freedom of unlimited exposures combined with the instant view of those images on the camera’s LCD screen created nothing less than a revolution in terms of both quantity and quality.

What I think sets Attila’s images apart is not immediately visible but I think it is steeped in his photographic history, having been an

early underwater adopter and problem solver in the 1970s. Back then each image was a step forward; housings, flashbulbs, wider lenses, optics and split levels to name but a few. Then there were the subjects themselves whose locations had to be found, habitats and biology learned and predicted before a successful image could be achieved.

To think of these image developments as a genuine apprenticeship goes some way to explain the ‘cut above’ status of



Coral Reef profiles often include what is called a dropoff. The reef slope can extend hundreds of meters downward like a cliff edge. While light intensity decreases, reduced wave action allows greater numbers of coral species to develop. Sponges, sea whips, sea fans become abundant replacing the hard stony corals in deeper less lit water. Bligh Waters, Volivoli, Fiji

Attila’s images because in every image there is an attention to detail; it’s as if he only had 35 exposures left if he took this one even though he has limitless digital images at his disposal. This mindset makes sure everything is in place: subject, lighting, exposure, behaviour and above all composition before the frame is captured and, once the finished image is revealed to the viewer, they have no doubt where their eye has to go. The result is subtly

powerful and it generates a timeless quality that still works so effectively.

They say every picture tells a story and Attila’s images take you straight to Chapter One.

Peter Rowlands
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www.ambvision.com

My (last?) Shot

I started scuba-diving three years ago in my late 40's, mostly not to lag behind the kids but I really enjoy it now.

Photography has been my hobby for a long time, so I soon started fussing around with cheap action-cams – not a very satisfying experience. I needed a real camera and LIGHT.

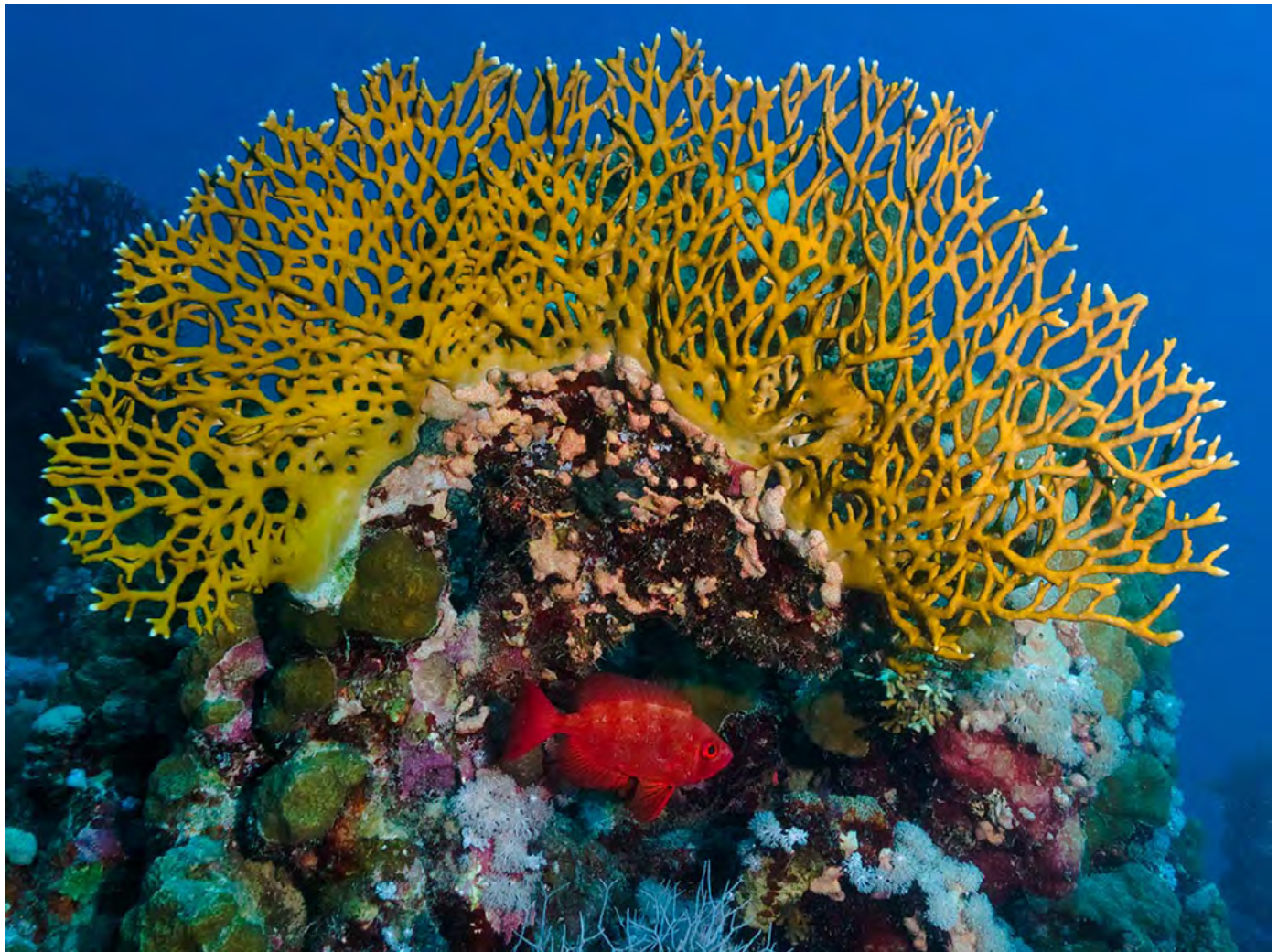
My wife suggested last fall “Why don't you get yourself a nice setup for Christmas?”. Despite her kind suggestion, I didn't want to spend the entire family's annual diving budget on this purchase... I looked for advice on the web and stumbled upon UWP, read most of the back issues and realized that at this point good advice on how to take good photographs below surface was probably worth more than the latest equipment.

So I got Alex Mustard's book, an Olympus EPL-3 with the 14-42 kit lens and housing and two strobes (YS-120 and YS-27) for relatively little money after diving into the classifieds for a couple of months.

I tried everything out on two or three test dives in a cold quarry, then we left for a family dive trip to the Red Sea (Marsa Alam region).

Most of our dives were shore-dives and that was a good thing because I needed to get used to gearing up the camera in addition to myself; this is easier on the beach than in a zodiac. And by the second day that I had learned that in the sweltering desert heat it's getting the camera ready first and slipping the diving suit on after that.

Handling the gear and settings while diving can be complicated but I remembered at least some of the basic advice from the book. I took this picture



Olympus E-PL3 with 14-42 f3.5-5.6 IIR lens @ 14mm in the Olympus PT-EP05L housing, H2O-tools 0.72x wetlens, one Sea&Sea YS-120 and probably another Sea&Sea YS-27 strobe, both with diffusers, ISO 400, f11, 1/60 sec. exposure

I processed the raw image first by conversion to DNG and then with Raw Therapee to jpg, followed by some further editing with Photoshop to clear backscatter from the blue parts. I am not sure if the Exif data came along all the way.

[The reason for this somewhat odd approach is that I set the camera to 2:3 format when shooting to get a larger view on the screen, but the Adobe Camera Raw software does not allow me to reverse the crop and get the full 4:3 dimension recorded in the raw.]

on my first salt-water dive with the strobes at the Gabal el Rosas dive site. We were already on our way back when I saw the coral fan with a red fish about 3-4 meters below us. I swam down, framed and could take one shot before the fish dashed away. The guide wasn't too happy with my initiative ("This was after half tank!!!") but I think in the end the shot was worth it.

The next morning I changed the batteries on my strobes but the YS-27 wouldn't power up. I tried three sets of batteries, no power – then I realized there was a "swooshing" noise when I moved the strobe.

A quick look and a horrifying sight: A puddle of water right in the reflector. The battery compartment is sealed in those strobes, and sure enough the batteries had stayed perfectly dry – but for the rest of that strobe this was the end of it all.

The test-dives in the quarry had been shallow but the dive from this shot was close to the 30 meter limit – one of the gaskets must have leaked a bit and the strobe stopped working towards the end of the dive. For the

image data, I am thus not sure whether I should mark one or two strobes, but it looks to me like this might have been the last sigh of my YS-27 (left side, one click down from a previous vertical shot). Anyhow, I consider this the last shot of a brave, old strobe... Farewell!

Klaus Foerstemann



Do you have a favourite shot or an image/s which made a dive special.

E mail yours with some text to

peter@uwpmag.com

and yours could be the next My Shot/s



Issue 128/65



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STEVE BACKSHALL



CRISTINA ZENATO



ANDY TORBET



PATRICK WIDMANN

WHAT ELSE IS GOING ON?

- Shark rodeo
- The cave
- Virtual dive simulator
- Entry-level trydives
- Sidemount trydives
- CCR trydives
- British Isles experience
- The Great British Pub
- Tech stage
- Photo stage
- Inspiration stage
- UK diving stage

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Marshall's Mysteries 5

Do you know what these animals are, or what they are doing? Have a guess – answers on page 68.

A

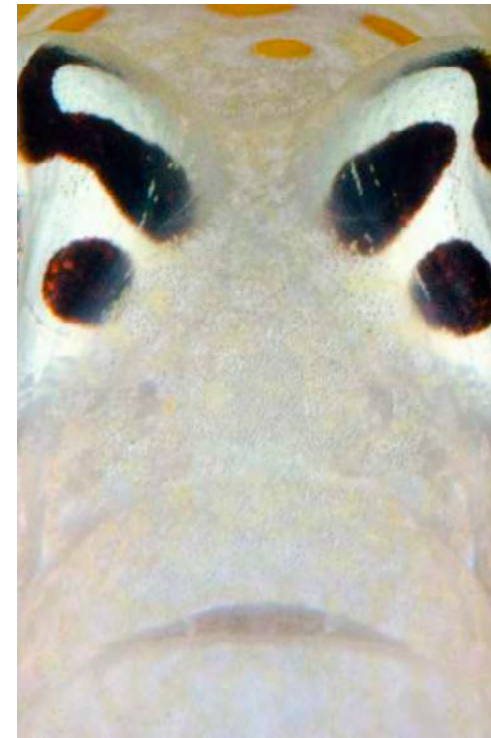


© Colin Marshall / FLPA / Minden

Lembeh, Sulawesi, Indonesia

Image about 10 cm left to right

B



© Colin Marshall

Raja Ampat, Indonesia

Image about 1 cm top to bottom

C



© Colin Marshall / Alamy

Lembeh, Sulawesi, Indonesia

6 cm long

D



© Colin Marshall / Ardea

Halmahera, Indonesia

image about 3 cm across

Guidelines for contributors

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

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

Uw photo techniques - Balanced light, composition, etc

Locations - Photo friendly dive sites, countries or liveaboards,

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

Equipment reviews - Detailed appraisals of the latest equipment

Personalities - Interviews/features about leading underwater photographers

**If you have an idea for an article,
contact me first before putting pen to paper.**

[E mail peter@uwpmag.com](mailto: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.

Marshall's Mysteries 5 - Answers

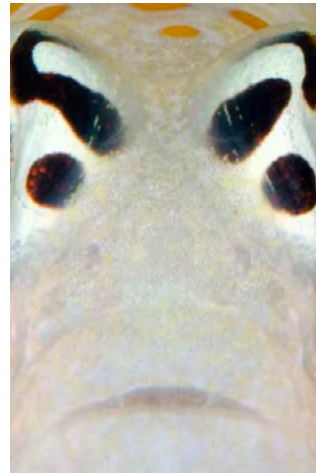
A



Partially buried Volcano Sea Cucumber (*Holothuria* sp, perhaps *Holothuria turriscelsa*), ejecting sperm.

Shortly after image was taken, the cucumber disappeared back underground.

B



"Angry eyes" of Spotted Shrimpgoby (*Amblyeleotris guttata*).

C



Clark's Anemonefish (*Amphiprion clarkii*) with bristles from a polychaete worm attack.

Close-up showing bristles around mouth shown on image below (left).

Difficult to determine what kind of worm was involved in the attack, but possibly the Golden Fire Worm (*Chloeia flava*) as shown on image below (right).

D



Red Algae (*Bangia* sp), a plant that bears an uncanny resemblance to Troll hair.

A sneaky image which shows only a close-up of the fish, to challenge the reader.

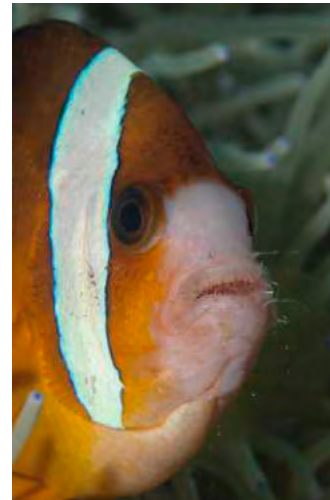
Image below (left) shows full image, and (right) shows profile, with buddy Snapping Shrimp (*Alpheus* sp). They have a symbiotic mutualistic relationship where the shrimp, who are natural burrowers, dig & clean a safe habitat for itself and the goby, while the goby, with better eyesight, keeps watch for predators.



© Colin Marshall / Blue Planet Archive

More detail on this Goby can be found on page 863 of Volume 3 of "Reef Fishes of the East Indies" by Gerry Allen and Mark Erdmann.

© Colin Marshall / Alamy



More detail on this Anemonefish can be found on page 571 of Volume 2 of "Reef Fishes of the East Indies" by Gerry Allen and Mark Erdmann.



© Colin Marshall / Ardea

If you think any of the identifications or information above is wrong, please let me know at colintrmarshall@yahoo.com. Feel free to send me any images of anything you'd like some help in identifying – any particularly interesting mysteries may be included in future Underwater Photography issues.

Parting Shot 1

Do arrow crabs have ears? If so, is this one waving a pincer around his right ear as some kind of warning?

Full credit to my partner and buddy Laura Storm for finding this one embedded in an azure sponge, 18m down at Pink Beach, Bonaire. Laura had finished her own capturing with this individual, and although it was my turn, I decided to grab just a couple of frames.

Conscious that this crab had already been strobed a few times, there was also my dive computer nudging me that bottom time was ticking away. I sincerely hope that being angled downward at about 120 degrees wasn't a contributory factor to what happened next.

I started ascending and then stopped. Expanding air in my right middle ear wasn't manoeuvring out via its normal exit route, i.e. my Eustachian tube. In fact it wasn't exiting at all. Strange, as it had found its way in there quite happily on my earlier descent.

Over the years I have logged hundreds of dives involving ear equalisation, not to mention the rapid pressure changes I experienced as a competitive freediver. They haven't all been trouble-free, but they have at least been rupture-free. That is, until now. I swallowed and wiggled my jaw and inched a little further upward.

The pain level wasn't excruciating: fairly tolerable actually, but when it suddenly eased and I felt bubbles coming out of my ear, my heart sank. This was day 3 of a two week dive trip that had been delayed for over two years due to Covid. For the uninitiated, ruptured eardrum=no diving until healed.

Captures for the rest of the trip were thus all topside - iguanas, butterflies and kite surfers. For my long-awaited trip to Bonaire, this image became my



Olympus OM-D E-M1 mkii, Olympus 60mm macro, INON Z240 + S2000 strobes, 1/125s, F14, ISO200 Nauticam NA-EM1ii housing, INON Z240 + S2000 strobes

own personal underwater parting shot. I just now need a positive ENT diagnosis to tell me it won't be a final one.

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

peter@uwpmag.com

Mark Harris

www.subscenic.co.uk/info.html

Parting Shot 2

I was with a long time group of dive buddies, who had been dry too long due to the pandemic. We were in Cozumel to work off the rust. Cozumel was relatively close, had warm, clear water, and what's not to like about Mexican cuisine?

Cozumel is also noted for its strong currents. They keep the reefs healthy by bringing nutrients, and offer divers a free ride as long as they are headed in the right direction. Sometimes the current will reveal hidden critters, but sometimes it can sweep us past before we can get off a good shot.

The current was ripping that morning. As I drifted, I spotted a turtle and a French Angelfish ahead of me, together, in a small coral head. I'd never seen this sort of symbiosis and was curious, but my primary interest was getting a shot and figuring things out later. Camera and strobe settings were for closeup, with no time to adjust anything except focus. Flying with the current, I got off two shots. The first, from about 4 feet, was just to get an image in case all else failed. The second, from about half the distance, was the money shot. No chance for a third; by this time I was too far down current. I dug into the sand, looking back, thinking about crawling back and trying again. But by this time another photographer had staked it out, so I chimped (American photographers' slang for checking out an image on the camera's rear screen while possibly missing further action happening in front of the lens) just to make sure I'd nailed exposure and focus.

Once I downloaded the image and examined it, the relationship between the critters became obvious. The turtle was munching on a sponge or a coral, while the angelfish was scarfing up the residue. You can see



Panasonic GH5 in a Nauticam housing, manual setting, Lumix 14-42mm lens at 42mm (84mm full frame equivalent), Nauticam WWL-1 wet lens, two Inon Z240 strobes set on TTL. 1/200th second, f8, 400 iso

the scraps coming out of the turtle's mouth.

So sometimes, as with CSI cases, the camera is a great way of gathering evidence for later study.

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

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Eric Hanauer

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