





Canon EOS R5 features:

- ✿ 45MP Full-Frame CMOS Sensor
- ✿ 8K30 Raw and 4K120 10-Bit Video
- ✿ DIGIC X Image Processor
- ✿ Sensor-Shift 5-Axis Image Stabilization
- ✿ Subject Tracking with Deep Learning
- ✿ CFexpress & SD UHS-II Memory Card Slots

AR5: \$3,199 USD



Sony Alpha a7S III features:

- ✿ 12MP Full-Frame Exmor R BSI CMOS Sensor
- ✿ Extended ISO 40-409600, 10 fps Shooting
- ✿ 5-Axis SteadyShot Image Stabilization
- ✿ 759-Point Fast Hybrid AF
- ✿ Updated 61 point auto focus
- ✿ Dual CFexpress Type A/SD Card Slots

A7S III: \$2,949 USD



Contents

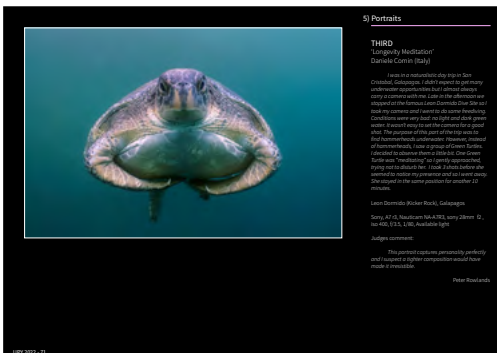
- 4 **Editorial**
Dive Show 2022, It doesn't get any simpler & Measurebators 2
- 5 **News Travel & Events**



- 11 **New Products**



- 22 **UPY 2022 Editor's Choice**
by Peter Rowlands



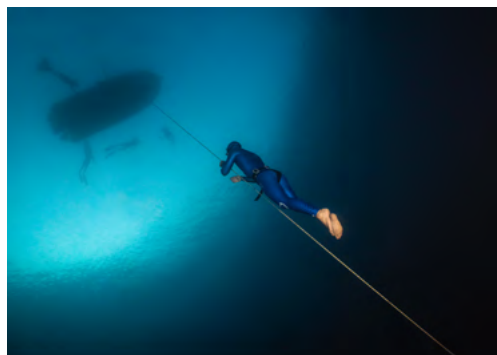
- 26 **Marelux Sony A1 housing**
by Phil Rudin



- 33 **Z50 for lightness**
by Pete Atkinson



- 37 **Tech and Free**
by Alexandre Hache and
Graham Owens



Underwater Photography

A web magazine

UwP125 Mar/Apr 2022

- 40 **Whalesharks**
by Gregory Sweeney



- 46 **Future from the Past**
by Brook Peterson



- 51 **Mozambique & Sth Africa**
by Tim Rock



- 56 **Marshall's Mysteries 2**
by Colin Marshall
- 58 **Parting Shots**
by Floris Bennema and
David Fleetham



- 62 **'UP12' Supplement**
by Peter Rowlands

Cover shot
3rd place Portrait
Daniele Comin (Italy)
UPY2022

Underwater Photography 2001 - 2022
© PR Productions
Publisher/Editor Peter Rowlands
www.pr-productions.co.uk
peter@uwpmag.com

Editorial

Go Diving Show 2022

In a few days time I will be attending the Go Diving Show here in the UK. The last time I was there was just days before the C word portcullis came down with a thump almost exactly two years ago.

Since then we have been tested financially, morally and spiritually so it is with great excitement that I am packing my overnight bag and going to see how everyone else is, how they've been and what they've got planned. In addition I am hoping to get a very positive feel from both exhibitors and attendees alike that the handbrake is finally off.

If it has taught us only one thing then, if we are to fully recover, we need each other like never before. We need us for social and visual stimulation and inspiration and we need to support all in our industry to help them recover their lost ground.

The situation is very upbeat so let's get out and enjoy it again.

It doesn't get any simpler

Pete Atkinson's article makes interesting and informative reading for anyone considering lightening their travel load without compromising quality too much. It did also highlight that moving to a different format, no matter how small a difference physically, introduces more decisions to be made. This is usually because the native lens choice for a new, smaller format, lags behind the cameras themselves; sometimes by many years especially for us fisheye and fisheye zoom loving underwater photographers.

When I got to the part of Pete's article where he mentioned FTZ adapters which allow one format lens to be used on another format camera body, I thought this isn't as simple a choice as it first appeared. That then reminded me of an editorial from six

years ago exactly in UwP83 when I highlighted how complex/tech both stills and video had become.

Now, as I'm sure you'll agree, six years is a very long time in 'tech' so I thought it only right that I update it with today's terminology to confirm that life never gets simpler so here goes:

Measurebators 2

If you thought digital stills photography had specification differences which deserved to be discussed to death such as megapixels, RAW, jpg, 8bit, P&S, 2/3", 1", 4/3rds, MIL, DSLR, APS-C, DX, FX, CCD, CMOS, FTZ, UHD, DCI, X3, x sync, TTL, eTTL iTTL, DOF, bokeh, dome, flat, WB, MWB, CFWA, LCD, OM-D, LX, RX, NX, EOS, ASA, ISO, 4:3,

3:2, 16:9, 1:1, SD, SDHC, SDXC, CF, AF-S etc, etc, spare a thought for all those suddenly entering the video world because we have ALL of the above PLUS 1920, 1080, 720, 2k, 4k, 5.7k, 8k, Full width, DV, HD, UHD, 24p, 30p, 60p, 4.2.0, 4.2.2, h264, AVCHD, MOV, MP4, XAVC, XDCAM, ProRes, Long GOP, Mbps, LUX, XLR, Lanc, AV, HDMI, SDI, ND, °K, ISO, Dual ISO etc, etc. (You can take a breath now).

I'm pretty sure that in 'my' day, the choices were 35mm or 6cm x 6cm, black & white or colour :-)

Peter Rowlands
peter@uwpmag.com

News, Travel & Events

Mission Blue Inhambane Seascape Hope Spot



Mission Blue has just declared in February 2022 that the Inhambane Seascape will be a Hope Spot in recognition of the spatial planning work being done in the area to develop a network of marine protected areas (MPA) in the surrounding waters.

Founded by legendary oceanographer Dr. Sylvia Earle, “Mission Blue is uniting a global coalition to inspire an upwelling of public awareness, access, and support for a worldwide network of marine protected areas – Hope Spots.”

Mission Blue acknowledges

the Marine Megafauna Foundation and their partners’ work assisting the government of Mozambique as they strive to meet the UN Convention on Biological Diversity to formally protect 30% of its marine resources by 2030.

Dr. Sylvia Earle says, “Mozambique as a country has already taken significant actions to safeguard the extraordinarily rich, highly important life along the coastline. Everything is on the line. There’s an opportunity now to significantly scale up and embrace those areas that are already protected

with a larger area along the coast that connects the land with the ocean beyond. I particularly want to salute Andrea Marshall and her team at the Marine Megafauna Foundation —they work with so many large creatures that are so important and so threatened. We’re on the edge of losing them forever unless action is taken now.”

Andrea Marshall and her team at the Marine Megafauna Foundation were especially singled out by Earle. Marshall has spent 20 years in Mozambique and has dedicated her life to supporting the conservation

of endangered marine megafauna species. “Our overarching goal is to use science to underpin the comprehensive management of the protected areas that currently exist and provide justification for the expansion of those areas and new adjoining areas along the coastline,” she says.

To ensure the viability of long-term conservation efforts across the seascape, MMF is helping these MPA managers to design science-based strategies for at-risk marine megafauna species.

www.mission-blue.org/hope-spots

Medfoto, International Photography Contest Of The Mediterranean Sea

MedFoto sets out, not only to add to our existing knowledge about the marine environment, but also to conserve it by publicising the photos collected for the competition.

Two institutions collaborate to carry out the only international photography competition in the Mediterranean, MedFoto. Alive Foundation (alivefund.org), an entity that promotes marine research and the dissemination of knowledge about this environment to improve its management and conservation, and the Club Nàutic de L'Escala, (nauticescala.com), which works to promote sustainable sports on the Costa Brava.

The Mediterranean Sea is rich in cultural and historical value. It is an environment of both work and recreation for people, as well as being the habitat of the thousands of species of animals and plants that make up its extraordinary landscape. Both the human uses and the environment have to be able to coexist for the enjoyment of present and future generations. MedFoto was born to reinforce the fragile relationship between people and the sea and both raise awareness about the natural values of the marine environment and encourage everyone



who goes to the sea, be it for business or pleasure, to adopt a responsible attitude.

The event calls on both professional and amateur photographers to enter innovative and inspiring images that show marine diversity and the relationship between human beings and the Mediterranean Sea on the theme: the sea and its people.

The competition accepts photographs dedicated to all aspects



This wave came roaring, a very close contender. Photo: Francisco Javier García.

A monkfish juvenile in its pelagic state, last year's overall winner, from the underwater category. Photo: Xavier Salvador.

of the sea, taken on the surface and underwater, in seven different categories; landscape, wildlife, sports and leisure, marine trades, underwater photography, conservation and climate change, and mobile phone images. In addition, there are two special categories, Costa Brava and L'Escala, and a special prize for under 16s. In total, MedFoto awards 4,000 euros across the different categories.

Amateur and professional photographers who want to participate

can submit up to 15 photographs in any of the seven categories of the contest. The rules will be published on 1 February on the contest website (www.medfoto.org), and the registration and submission period for the images will be open from 1 April to 15 May.

<https://medfoto.org/?lang=en>



Wakatobi prepares to reopen



There are growing signs that travel to Indonesia is returning to normal. Communications from the government indicate a lifting of current travel restrictions by or before Easter of this year.

The first international flights from carriers such as Singapore Airlines are now landing in Bali; this will certainly increase quickly with the elimination of quarantines.

Wakatobi has also started to prepare for reopening. While the resort has been well maintained throughout, it is now time to start bringing our staff members from other parts of Indonesia and abroad back to the island so we can once again delight our guests in the same spirit that has made Wakatobi loved and celebrated.

All the positive news has prompted an enthusiastic response

from our global community, and our reservations team has received numerous requests for bookings. If you are considering travel to the resort, we suggest you contact us as soon as possible to secure a booking or schedule a date for a postponed booking. 2023 time slots are filling up quickly with a combination of new reservations and postponed dates.

Every member of the Wakatobi team feels a deep appreciation for the patience and loyalty of our clients. Your understanding these past two years is what has kept us going and we sincerely say “thank you” for standing by us.

As we return to normal operation, we look forward to welcoming our treasured guests and friends. We are all excited to see you!

www.wakatobi.com

BIUPC 2022 will be on 3rd September 2022

BIUPC engages the British and Irish underwater photography communities in a one day photography shoot out. It is accessible to people who live and dive at different locations around Scotland, Wales, Ireland, Northern Ireland and England, including the Isle of Man, the Channel Islands, the Isles of Scilly and the other 5000 or so other islands around our shores that are bounded by the Atlantic Ocean, the English

Channel and the North Sea. A late August/ early September on-the-day multi-location competition format reduces the travel and cost burden for competitors, whilst encouraging participation commensurate with a championship.

Photographers compete for a trophy in memory of one of BSoUP's co-founders, the late Peter Scoones, and the title British & Irish Underwater Photography Champion.

<https://bsoup.org.uk/competitions/the-british-irish-underwater-photography-championship/>

Galápagos Islands with Magnus Lundgren

14 - 25 October 2023



Join our magic dive trip to the famous Galápagos Islands in the Pacific Ocean. At this World's premier dive destination we look for giant whale sharks, playful sea lions and fur seals, huge schools of hammerhead sharks, Galápagos and silky sharks, curious sea turtles, surreal manta rays, and many many other special animals

Magnus says "I often meet spectacular marine animals around the Galápagos Islands. All the big action around Darwin and Wolf islands is a given. But it is much more than that. It can be Mola molas (sunfishes) at a dedicated cleaning station, maybe penguins swim by at Vicente Rocca or we visit a special spot where we dive with the unique marine iguanas.

There are so many things to see and experience in Galápagos such as dolphins, eagle rays, flightless cormorants underwater, sea horses, red-lipped batfishes, horn sharks and many more creatures that are waiting for our visit."

Join underwater photographer Magnus Lundgren when he leads this expedition to the stunning archipelago that fascinated Darwin 1835.

Interested to join the trip of a lifetime?

Contact Daniel at Scuba Travel as there will only be a very limited number of available seats.

daniel@scubatravel.se

www.uwpmag.com



WRECKS REEFS WALLS MACRO

ADVENTURE DIVERS BALI

Where the oceans meet

www.adventurediversbali.com

Atmosphere Resort, Philippines April 20-30, 2022



Treat yourself to a stay at the finest luxury boutique resort in the Philippines, set amongst the beautiful exotic grounds of Atmosphere Resort and Spa. Experience world-class diving, both for rare and unique macro critters nearby and spectacular, lush coral reefs at world-famous Apo Island a short boat ride away.

Join Backscatter photo pro Vijay Raman on a fun-filled Backscatter Underwater Photography Workshop at Atmosphere Resort, that is sure to help you step up your game and help you bring back amazing images you'll be proud of. Beginners and advanced shooters alike will find something to inspire and advance their photography skills over the course of the ten-day workshop.

The Dauin coastline, where Atmosphere Resort is situated, is

a macro photographer's paradise. Exquisite and rare creatures will captivate the discerning photographer with muck diving that will rival the best of the best. Nearby Apo Island will offer world-class diving on its stunning reefs and walls, blanketed with healthy corals and teeming with a profusion of fish, turtles and other marine life. You won't want to miss out on the critters revealed during the night dives or a mandarin fish dive at dusk.

Late May to early June is what is considered the peak of the macro baby boom, with many animals carrying eggs and lots of juvenile species; a great time to capture unique behavior shots. It is also the peak season for frogfish and pipefish.

www.backscatter.com

Sea Shepherd 2022 science with Dr. John Payne

With your help, Sea Shepherd is kicking off 2022 by expanding our science and conservation work globally.

Say hello to our new Director of Science, Dr. John Payne, PhD who will be partnering with committed, passionate people all over the world to bring world-class science to our global mission to protect marine wildlife. John is an ecologist with field experience in marine and terrestrial environments in Latin America, Africa, and Asia, and he specializes in population modeling, animal telemetry, and AI modeling.

Our Science program is already working with Ship Operations and Conservation to plan joint campaigns to stop illegal fishing and protect our precious marine ecosystems, while also helping to sustain research and local conservation efforts.

And now with Dr. Payne on board, 2022 will be an exciting year for Sea Shepherd Science!

DONATE NOW and your support will allow research vessels like Martin Sheen to work off the Pacific Coast of Mexico for the 7th year in a row, with expeditions to the biologically important Guadalupe Island and Revillagigedo Islands Marine Protected Areas. A second survey of endangered Amazonian



dolphins is planned in the spring by Sea Shepherd Brazil, and Italian researchers are aiming to publish the latest work from the Operation Siso Campaign in the Mediterranean, which removed illegal fish aggregating devices. Dr. Payne will be growing a scientific network to help plan research on other Sea Shepherd ships and in many locations, including the Caribbean and West Africa.

All of this work is made possible by your generosity and shared commitment to protecting marine wildlife. If you haven't already done so, we ask that you to please consider including Sea Shepherd in your end-of-year giving so our ships, scientists, and crew can protect as many species as possible!

For the ocean,
Captains, Crew and Sea
Shepherd Staff

www.seashepherd.org

www.uwpmag.com

DIVE PHOTO GUIDE
PRESENTS

UNITED NATIONS
WORLD
OCEANS
DAY 2022

Photography Competition

SUBMISSIONS OPEN FROM 1ST MARCH 2022

www.unworldoceansday.org

© Kevin De Vree

New Products

Marelux Sony A1 MX-A1 housing



The Sony A1 offers an extraordinary combination of high resolution and blazing speed.

This incredible new high-resolution 50.1MP model from Sony offers 30fps blackout-free shooting with AF that is double the speed of the a9 II. For video shooters, 8K 30P 10-bit 4:2:2 is available with up to 30 minutes of shooting before overheating.

For those more interested in 4K, you can shoot 120P at 10-bit 4:2:2 internally. In addition, this camera also features a wide 15 stops of dynamic for stills & 15+ stops for video. We also see the World's first EVF with 240fps, strong and stable IBIS, and a vastly improved AI-based real-time tracking performance.

Marelux housings are built from

high grade aluminum alloy which provides durability and can withstand even the toughest beating. Ergonomics is also top-notch, all camera controls are readily available at your fingertips and maintain a small footprint which makes it great to travel with.

Buttons are clearly labeled. It is very easy as well to assemble and installing the camera to the housing is a breeze with its quick release plate. It also has a depth rating of 100m.

The dual locking system design provides security and minimal effort to lock your housing. In addition, it has a special feature which prevents accidental unlocking but still very easy to open if you need to change your battery or memory card.

Port Locking secures your port and port extensions in place with one

simple click with its built-in locking system.

The housing comes with the flash trigger. This converts the electronic signal from your camera into a light signal which triggers your strobe. The flash trigger also has a very long battery life - 10,000 triggers with the (2) CR2032 batteries

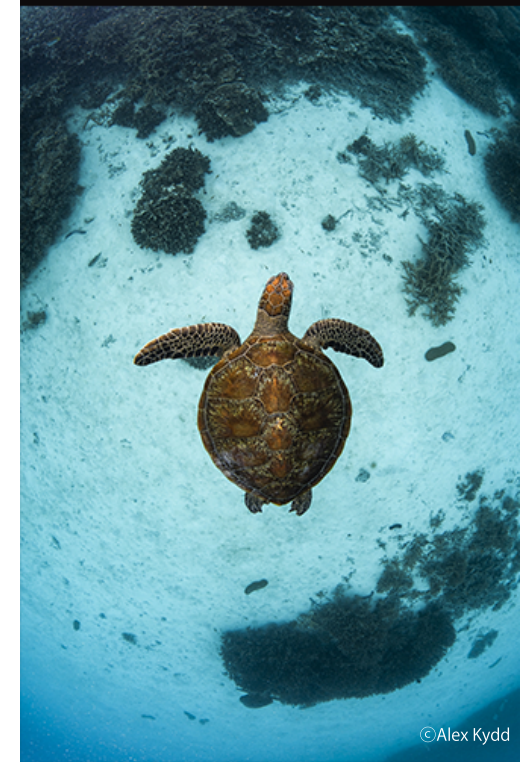
The housing comes with a quick release camera plate which makes camera installation a breeze. Also, the plate locks in place to the housing and can be easily installed and removed. Once in place, the camera is secure to the housing.

www.marelux.co
www.bluewaterphotostore.com



© Alex Kydd

*Flagship Underwater Strobe
Wide and Powerful
Z-330 Type 2*



© Alex Kydd

INON
Made in Japan

BACKSCATTER

**THE BEST
BANG
FOR YOUR
BUCK**



**OLYMPUS
E-PL10**

INON Housing For Canon EOS R5

We are pleased to announce new housing for Canon EOS R5.

The most advantageous feature is INON original TTL Converter. As the converter is developed and calibrated precisely for underwater environment based on INON strobe protocol, it delivers highly accurate TTL exposure.

The converter allows the control of the strobe's output manually FROM the camera. No hands off the housing to set flash output on strobe. Don't miss the right moment to capture with different lighting effects.

Unlike Manual flash mode, the converter provides accurate exposure and supports high speed continuous shooting "12 shots/sec." The TTL converter uses less power consumption enabling it to operate 100,000 shots with just two CR2032 coin cells.

The Vacuum Leak Sensor (PAT. P) ensures housing sealing in 5 minutes before diving.

The housing is equipped with a quick mount attachment allowing quick switch between horizontal/vertical camera orientation. As lighting position remains same, shooting vertical composition with appropriate lighting. The quick system also allows low angle shot with vertical composition.



The patented MRS control system has further evolved. The second generation MRS offers less rattle and play enabling the focus peaking function of the camera when focusing manually.

Optional viewfinders provide same magnification as camera's viewfinder (1.0x) and extends its eye-point. Two options are available: "Straight Viewfinder Unit II7" or angled "45 degree viewfinder Unit III" to choose depending on shooting conditions.

The cast manufacturing technique enables thin body plate with complicated curved design which is not possible with machining. Lightweight and durable aluminum alloy body has acquired reliability, durability and controllability even in severe conditions underwater.

www.inon.jp



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.

www.reefphoto.com



Issue 125/12

www.uwpmag.com

EUROPE'S NR. 1 UNDERWATER CAMERA STORE



QYSEA FIFISH PRO W6

INDUSTRIAL GRADE ROV PLATFORM
POWERFUL & PRECISE, ADVANCED ADD-ONS, EXCEPTIONAL STABILITY, SUPERIOR BATTERY



CHASING M2 PRO ROV

Professional underwater ROV/Drone designed for professional users and industrial applications.

QYSEA FIFISH V6 PLUS

More powerful in functions and simple in operation, FIFISH V6 Plus creates a new way of underwater operations.



WE ARE UNDERWATER PHOTOGRAPHERS... JUST LIKE YOU

Nauticam NA-R3 Housing for Canon EOS R3



The Canon R3 is one of the most exciting camera releases of the year in the underwater imaging world along with the Sony A1 and Nikon Z9. All three cameras represent the pinnacle of each manufacturer's technological developments distilled into a pro-level hybrid-shooting mirrorless body. The R3 turns up the performance level of the features that makes Canon a popular choice with underwater users such as their Dual Pixel AF and top-tier video recording specs while maintaining excellent still image quality.

The Nauticam NA-R3 professional aluminum underwater

housing for the Canon EOS R3 mirrorless full frame camera is a true hybrid shooting solution, just as the R3 itself. Nauticam has continuously supported both the Canon pro-level DSLR lineup as well as the growing full-frame RF-mount mirrorless cameras with innovative underwater housings and the new NA-R3 is the combination of all those technologies. Blending elements of our 1D series housings with those for the R series, the NA-R3 will be the most capable housing for the R3 available.

www.nauticam.com



Nauticam NA-A6600 for Sony Alpha a6600



"The Best APS-C Sony Ever"

Sony has hit a home run with best-in-class AF, huge battery life, rugged build and amazing all-around performance. This is a mirrorless DSLR shooters can love; in a travel friendly size.

Installed in the new Nauticam NA-A6600, it allows ultimate versatility, lens compatibility, ergonomics and superior wet lens compatibility.

www.reefphoto.com

BACKSCATTER THE BEST UNDERWATER MIRRORLESS CAMERAS



CineBags CB80 Square Grouper XL3



CineBags is proud to announce the 3rd generation of our popular Square Grouper housing carrier.

Inspired by our dive expeditions, stretching from the ocean depths of Mexico to the Philippines, our team of divers and designers at CineBags are excited to bring you a new series of products. With the adventure camera crew in mind, we have created the Square Grouper XL.

The CineBags CB80 Square Grouper XL is designed to be a compact and collapsible home base for your camera rig to and from the dive boat. With the Grouper, there is no need to share a rinse bucket with your fellow divers. Knowing that your rig is protected, you can focus on the adventure.

www.cinebags.com

Matthias Lebo YouTube Channel



Welcome to my channel and the Underwater Filmmaking School. It's a pleasure to have you here.

All I do on this channel is talk about underwater cinematography in all its aspects. I share tips and tricks from years of experience of filming in various environments, talk about the latest developments in gear made for filming underwater, review gear you might need for your upcoming underwater shoot and showcase some interesting animal behavior, that I was able to capture over time. And all this with one goal in mind, to make you a better underwater filmer and cameraman.

And if you have any questions, feel free to shoot me a message. I'm looking forward to hearing from you.

www.matthiaslebo.com

YouTube

NAUTICAM VIEWFINDER

Provide bright, clear & undistorted image
Precise focusing & artistic composition



32214
Angle Viewfinder 40° / 0.8:1

32212

Straight Viewfinder 40° / 0.8:1

32213

Angle Viewfinder 32° / 1:1

32211

Straight Viewfinder 32° / 1:1

Nauticam
Innovation underwater

EUROPE'S NR. 1 UNDERWATER CAMERA STORE



NAUTICAM RAPTOR HOUSING
FOR RED DIGITAL CINEMA
V-RAPTOR 8K VV

KELDAN 18XR
30.000LM RC READY
VERY POWERFULL AND
LIGHTWEIGHT UNDER-
WATER VIDEOLIGHT



COMPATIBLE WITH THE RC1 REMOTE
50 METER UNDERWATER RANGE!



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



WE ARE UNDERWATER PHOTOGRAPHERS... JUST LIKE YOU.



Nauticam NA-Z9 Housing for Nikon Z9



The specifications of Nikon's new flagship full-frame mirrorless Z9 read more like a wish list and promise to make it one of the most powerful hybrid imaging platforms available. The Z9 features a 45.7MP FX-format sensor paired with the new EXPEED 7 Processor that promises true no-blackout 20fps RAW, blazing fast 120fps 11MP JPEG, and up to 8K60p (with 2022 update) video capture.

The Nauticam NA-Z9 brings embodies the experience gained by producing professional housings for Nikon's flagship DSLR and mirrorless cameras, blending them to create the most intuitive underwater imaging platform available.

The NA-Z9 uses the N120 Port System for Z-Mount full-frame lenses. When using F-mount lenses, the FTZ adapter is inside the housing which allows for the same port configuration as is found on an F-mount DSLR system such as the NA-D6 or NA-D850.

Convenient lens release buttons on the housing for both F and Z mount makes lens changes a snap regardless of platform without having to remove the camera from the housing; only when installing or removing the FTZ adapter.

As a true hybrid shooting platform the NA-Z9 is just as comfortable being outfitted to capture video as stills. External monitors and recorders can easily be connected via the large M24 bulkhead which supports both HDMI 1.4 and HDMI 2.0 connections.

www.nauticam.com



Nauticam NA-R5 for Canon EOS R5 Camera



"The Professional Powerhouse"

Few cameras can provide the technical prowess, for stills and video, that the Canon R5 provides.

From 8K video to 20 FPS stills this camera shines. Paired with the innovative NA-R5 housing, there are no boundaries to the creative possibilities for pro or enthusiast. Unleash your potential with the latest technology from Canon and Nauticam.

www.reefphoto.com

BACKSCATTER
FLIP
UNDERWATER GOPRO FILTERS

NO FILTER

WITH FLIP

COMPATIBLE WITH

GoPro 5 GoPro 6 GoPro 7 GoPro 8 GoPro 9 GoPro 10



The Backscatter team spent hundreds of hours testing the best underwater cameras to find the best and not-so-good cameras for underwater photography. We publish this article annually from the results of our tests. This article is updated as new cameras are released and tested.

We divided our top picks into three categories:
 Best Compact Video Camera
 Best All Around Compact Camera
 Best Advanced Compact Camera

There is no one camera that is the best at everything. One may be the best for image quality, but cannot execute a custom white balance underwater for video. Another may be the fastest shooting camera that we've ever seen, but cannot focus close for macro.

Because of this we also included runners up in this review in addition to our top pick. Our top picks are our



best all-around choices taking into consideration serving the needs of the broadest segment of users for both photo and video. Depending on an individual's shooting style, subject interest, and shooting goals, a runner up may be a better option than one of our top picks for that particular individual.

The staff at Backscatter have extensive experience with every camera in this article and can help guide your decision about which camera for underwater photography is best for your individual needs.

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

Marelux Smart Optical Flash Tube



The Marelux Smart Optical Flash Tube is a necessity when shooting macro. This acts as your snoot, it concentrates the light from your strobe directly to your subject.

It features an aiming light which automatically shuts off when the strobe is triggered. In addition, the flash tube has an external knob to control the light shape.

The focus point is 170mm from end of the tube. The light diameter can be adjusted from 2mm to 60mm.

www.marelux.co
www.bluewaterphotostore.com

MIRRORLESS CAMERA

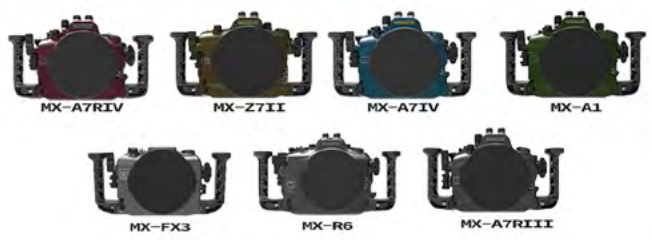
MX-A1
 MX-A7RIII
 MX-A7RIV
 MX-A7IV
MX-R5
 MX-R6
 MX-Z6II/Z7II
 MX-FX3



MX-R5
For Canon EOS R5 Mirrorless Digital Camera

CUSTOM COLORS

Silver White Black
 Macho Burgundy
 Olive Green Yale Blue



Marelux Housing: Best-in-class design, Compact and lightweight. Made by uniquely anodized aluminum, Superb scratch resistance with multiple color options.

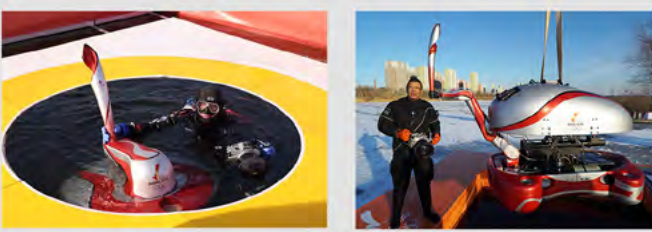
MX-Mini LF
for ALEXA Mini LF/ALEXA Mini Cinema Camera



SOFT
SMART OPTICAL FLASH TUBE



SOFT can be used on various popular strobes, with an aiming light automatically switching off when strobe flashes.



Marelux housing in underwater torch parade for beijing winter olympic.

AMBASSADORS



Renee Capozzola



Aleksander Nordahl



Scott Portelli

CONTACT US
 www.marelux.co
 info@marelux.co
 sales@marelux.co
 service@marelux.co

Scubalamp V7K PRO
15000 lumen video light



The Scubalamp V7K PRO 15000 is a professional video light in a self contained package.

Fitted with the patented rotary power switch. The switch adjust ON/OFF and 4 different power outputs. It is designed for easy use even with thick gloves. The end of light has a power indicator that show how much power remains.

The Scubalamp light 15 000 PRO also includes battery, charger, ball adapter and a transport case. The light has a 120° beam angle and a generous burntime and great CRI-value for natural color reproduction.

Burntimes:
 6000 lumen - 150 min, 9000 lumen - 100 min, 15000 lumen - 80 min

Stepless dimming 10% - 100%
 Beam angle 120°. Depth: 100 m

www.scubalamp.com

Exposure Underwater
Malmö, Sweden



Many clients want to “feel” the equipment in real life. This is possible in our beautiful showroom in Malmö loaded with underwater photography equipment. Some items might also be possible to check out at our valued dealers locations.

We are busy during office hours and therefore you should contact us the day before you want to visit to agree on a time. We want to have appropriate time to show you the products you are interested in.

Where is the showroom?

You find us at Scheelegatan 3 in Malmö in Sweden. We are there between 9 am until 16 pm, Monday to Friday. Call us before at +46 (0)40 18 62 62.

www.exposureunderwater.com

www.uwpmag.com

NAUTICAM RAPTOR

16120 NAUTICAM RAPTOR for RED DIGITAL CINEMA V-RAPTOR 8K VV

Supports both the RED V-RAPTOR 8K VV & the RED KOMODO (via16250)



SHIPPING NOW



- Tool-less setup
- Full mechanical control
- Compact
- Travel-friendly



16610 NAUTICAM PBM5III WR REAR
N120 CINEMA PORT SYSTEM

Nauticam
innovation underwater

FIFISH PRO W6 ROV



The FIFISH PRO W6 is an industrial-class ROV platform, equipped with an all-new powerful and patented Q-Motor system, a diving depth of 350 meters, powerful operating features and tools, as well as intelligent stabilization systems against strong currents. The W6 uses an innovative modular design and interface that enables seamless attachments, replacements, and removal of parts and accessories for a range of industrial underwater applications. Operate with power, precision, and efficiency.

The W6 battery capsule has a large amount of power. It is very durable and adopts a removable design. It has 8 hours of continuous

battery life (depending on operating conditions), with a quick charging mode that can charge up to 70% in one hour.

FIFISH PRO W6 is easy to carry and capable of deployment at any location, anytime. The standard 350-meter tether and reel can be used to execute various light to heavy-duty tasks, tackling missions with reliability, power, and precision.

www.qysea.com

www.uwcamerastore.com

www.uwpmag.com



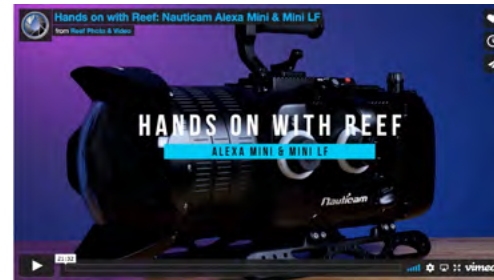
Certified Service Center
Professional workshop with pressure tank and trained engineers



Worldwide shipping
Mega assortment in stock
Fast shipping with UPS / DHL



Hands On With Reef: Nauticam Alexa Mini & Mini LF



The Alexa Mini is ideal for use on drones, gimbals, and integrates perfectly into the Nauticam Cinema System. The 4:3 Alexa sensor, complete with anamorphic de-squeeze, ARRIRAW, and ProRes recording in camera to CFast 2.0 cards in an underwater system captures footage that cuts seamlessly with other Alexa cameras on set, with the same workflow.

On today episode of Hands on with Reef we discuss all of the features of the Nauticam Alexa Mini & Mini LF housing, available accessories, and the ease of the installation process.

www.reefphoto.com

Tokina SZ 8mm F2.8 X Fisheye lens



Kenko Tokina Co., Ltd. is proud to announce the release of the Tokina SZ 8mm F2.8 Fisheye lens for Fuji X and Sony E (APS-C) camera mounts.

The Tokina SZ 8mm F2.8 Fisheye is a compact and lightweight fast, ultra-wide prime, manual focus, full-frame fisheye lens designed exclusively for APS-C sensor mirrorless cameras.

Emphasized perspective and unique distortion makes this lens attractive for both stills and video.

www.tokinalens.com

www.uwpmag.com



WEEFINE WED-7
7" MONITOR



IKELITE 200DL HOUSING FOR
NIKON Z6 / Z7 / Z6 II / Z7 II



NAUTICAM NA-Z7II
FOR NIKON Z6 II / Z7 II



ISOTTA HOUSING FOR
NIKON Z6 II / Z7 II

EUROPE'S NR.1 UNDERWATER CAMERA STORE

WORKSHOPS

ANILAO

PHILLIPINES



PHOTO
+
VIDEO

BLUE HERON
BRIDGE
Dates Vary

PALM BEACH



PHOTO
/
INTENSIVE



REEF

PHOTO & VIDEO

www.reefphoto.com

The Diving & Snorkeling Guide to South Africa and Mozambique by Tim Rock and Jean-Pierre Botha

Internationally published author Tim Rock has made numerous diving and photographic trips to lush South Africa and its northern neighbor, Mozambique. As nations begin to open up after Covid, Rock and co-author and Gansbaai, South Africa, resident Jean-Pierre Botha have created a new book about diving and snorkeling there. From the amazing Cape Kelp forests to the tropical whale shark grounds around Inhambane, the pair bring a look at some amazing diving and snorkeling.

This is where “My Octopus Teacher” was filmed and shark life from both countries appear regularly during Shark Week. Mozambique is also where the Marine Megafauna Foundation was formed.

Botha is one of the pioneers in great white shark cage diving and currently leads expeditions all over southern Africa. To write this, the authors initially embarked on a scuba safari that would take them 1900 miles (3,000+km) up South Africa’s eastern coast into Mozambique. On the way they would experience cold water diving around the Cape, where kelp forests swayed in the currents, pass through temperate waters rich with diverse marine life, and finally finish in the luxuriant tropical reefs off south-central Mozambique. You can snorkel with whale sharks, dive with pelagic mantas and observe amazing safari wildlife in a week’s time or less! Over the years the authors have returned to many spots on this route. Here are their latest findings of the rich marine life in this fantastic dive destination.



<https://www.amazon.com/gp/product/B09PHJYH4V>
<https://books.apple.com/us/author/tim-rock/id307174147#see-all/books>
<https://www.blurb.com/b/11009547-diving-and-snorkeling-guide-to-south-africa-and-m>
<https://www.amazon.com/gp/product/B09PJF43XJ>

www.uwpmag.com

What a Shell Can Tell by Helen Scales

Phaidon is pleased to announce *What a Shell Can Tell* by award-winning marine biologist, writer and documentary maker, Helen Scales. This beautifully illustrated title dives into the world of shells and the creatures who inhabit them, revealing what shells can tell us about their diverse living environments all around the globe.

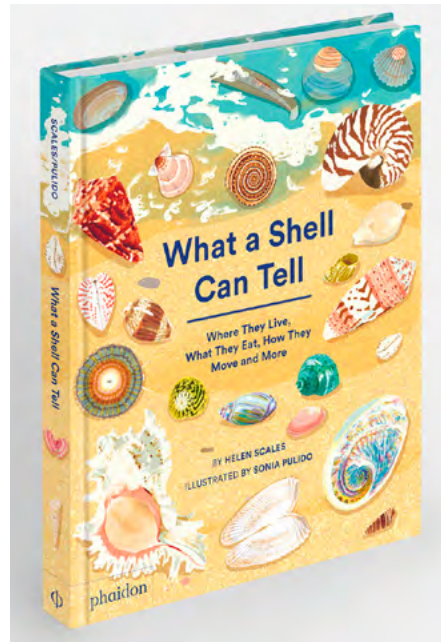
The illustrations accurately depict over 50 kinds of shells and molluscs from around the world, from the common and familiar to the weird and wonderful — such as the Clusterwink snail, that glows in the dark, or the Heart Cockle, which acts as a greenhouse, cultivating the algae it eats.

Designed to connect observations to scientific explanations, *What A Shell Can Tell* utilises a question-and-answer format, posing interactive questions about shells and molluscs that lead young readers to exciting revelations. For example:

Q: What can a shell's colour tell you?

A: It can tell you where its mollusc might have lived, because many shells use camouflage to blend into their surroundings.

Q: What about its shape, or its patterns?



A: Its shape can help you identify what type of mollusc it was, and often whether it was a vegetarian or a predator. Every single shell in the world has a different set of patterns, and some scientists even think the patterns you see on cone shells are messages that the molluscs write to themselves!

Shell collections are not only found in natural history museums and homes across the globe, but are an integral part of a child's seaside experience. *What a Shell Can Tell* is the perfect vehicle to open a wider conversation about the world around us with budding nature enthusiasts and future biologists.

www.phaidon.com/store/childrens-books/what-a-shell-can-tell-9781838664305/

live!
WETPIXEL

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

The 'Save Our Seas Foundation' Marine Conservation Photographer of the Year 2022



WINNER

'Season of anchovy fishery'
Thien Nguyen Ngoc (Viet Nam)

An aerial perspective of busy anchovy fishing activities off the coast of Hon Yen, Phu Yen province, Vietnam, many local fisherman families along the coastline will follow the near-shore currents to catch the anchovy during peak season. Salted anchovy is the most important raw material to create traditional Vietnamese fish sauce but anchovies are a little fish with a big impact. When they are overfished, the whales, tunas, sea birds... and other marine predators that rely on them as a dietary staple face starvation and population decline critically. And so far Vietnam is also facing this anchovy overfishing situation, according to the survey results of the Institute of Seafood Research, the reserves and catches of anchovies in the waters of Vietnam have decreased by 20-30% in the past 10 years.

Hon Yen, Phu Yen province, Vietnam

Hasselblad, DJI Mavic Pro 2, none, 28mm
f/2.8, iso 100, f/2.8, 1/60, none

Judges comment:

A stark visual reminder of man's reach and control over the surrounding habitat and its devastating effect on the natural balance.

Peter Rowlands

The following four images are the Editor's favourites from UPY 2022

www.underwaterphotographeroftheyear.com

5) Portraits



THIRD

'Longevity Meditation'

Daniele Comin (Italy)

I was in a naturalistic day trip in San Cristobal, Galapagos. I didn't expect to get many underwater opportunities but I almost always carry a camera with me. Late in the afternoon we stopped at the famous Leon Dormido Dive Site so I took my camera and I went to do some freediving. Conditions were very bad: no light and dark green water. It wasn't easy to set the camera for a good shot. The purpose of this part of the trip was to find hammerheads underwater. However, instead of hammerheads, I saw a group of Green Turtles. I decided to observe them a little bit. One Green Turtle was "meditating" so I gently approached, trying not to disturb her. I took 3 shots before she seemed to notice my presence and so I went away. She stayed in the same position for another 10 minutes.

Leon Dormido (Kicker Rock), Galapagos

Sony, A7 r3, Nauticam NA-A7R3, sony 28mm f2 , iso 400, f/3.5, 1/80, Available light

Judges comment:

This portrait captures personality perfectly and I suspect a tighter composition would have made it irresistible.

Peter Rowlands

6) Black & White

HIGHLY COMMENDED

'Honeycomb Moray eel moment'
Yazid El Shaari (Oman)

I was telling my friends at the dive center about this idea I had for a black & white image of a honeycomb moray eel and hoping to find one that day so I could try to make it happen. It was my lucky day, this beautiful creature was so cooperative and we got to spend the whole dive together just having fun making wonderful image memories.

Mermaid Cove dive site, Bandar Khiran, Sea of Oman, Muscat, Oman **(MBY)**

Nikon , D-850, Nauticam NA-D850, 105 mm, iso 200, 22, 1/200, Retra Pro

Judges comment:

This stood out immediately and the format choice and composition added to the strength of appeal. Unique and mesmerising.

Peter Rowlands



9) British Waters Wide Angle



COMMENDED

'Hiding lobster'

Saeed Rashid (United Kingdom)

I found this lobster in the shallows at Kimmeridge Bay which is one of my local and favourite dive spots. I was actually photographing the boot lace weed when I noticed an inquisitive lobster popping out of this hole to see what all of the commotion was. He stayed just long enough for me to be able to capture him. If you look carefully you'll see a couple common prawns that flittered around the lobster like attentive servants making sure their master was clean and presentable for the photoshoot. This remains one of my favourite UK wide images.

Kimmeridge bay , England **(MBY)**

Canon, 7d mkII, Nauticam, Tokina 10-17, iso 250, f10, 1/160, Inon z330

Judges comment:

Viewed small this image would struggle to compete but, viewed large, it reveals so much to look at and admire. Good balanced light and a sympathetic composition completes a serene moment.

Peter Rowlands

Marelux MX-A1 Housing and ports

by Phil Rudin

Only once in a decade or so do we see a new aluminum housing manufacture enter the rather small underwater housing market. In fact the last one I can remember was Nauticam and they have made a huge impact on the market.

One thing I have noticed in over fifty years of underwater photography is that the companies that succeed in the U/W market are run by hard core divers and the rest are lacking intel on how to assess what truly matters to photographers.

Marelux Precision Incorporated is headquartered in California, USA with products being manufactured in China and it is owned by several hard core professional underwater photographers and engineers. Marelux has assessed the market trends in the 2020's and has chosen to avoid the dying DSLR market and launch a line of all 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 coming. All of the Marelux housings are depth rated to 100 meters, all offer manual flash triggers and all use the same size dome ports and extension systems so that you can move between camera brands without needing to change port systems.

Macro ports will vary depending on the length of the lens. Currently Marelux has housings for the Canon R5 and R6 cameras, Nikon housings for the Z6 II and Z7 II cameras and Sony A7R III, A7R IV,

the new A7 IV and the Sony A1 which is the focus of this review.

Marelux has six signature housing colors, Standard Black, Burgundy, Mocha, Oliver Green, Silver Gray, Yale Blue and all seven of the current housings are available these six colors.

Sony Alpha A1 Camera

Sony Imaging introduced its first true Flagship camera, the 50.1 megapixel Sony A1 full frame mirrorless camera in late January 2021. During the past year this completely new level of camera has received the highest gold award rating ever given by the testing site DPReview an impressive 93%. Backscatter has ranked the Sony A1 as the best All-around full frame advanced mirrorless camera for 2022 with the Sony A7R IV as the best FF mirrorless camera for photos and the Sony A7s III as the best mirrorless video camera.

I reviewed the Sony A1 in UWP issue #120 which can be found in the back issues.

Marelux MX-A1 Housing and Ports

Currently the Marelux website lists housings for the Sony A1, A7R IV/A, A7R III/A, new A7 IV, Canon EOS R5, Canon EOS R6, and Nikon Z7 II/ Z6 II all in six different colors. The MX-A1 housing is priced at \$3198.00 US for the Basic Black with a \$200.00 upgrade for other five custom colors.

My prototype MX-A1 test housing came with



the very attractive non-reflective Silver Gray finish which seems quite durable. When I opened the housing for the first time I was surprised to see a bright lime green main housing O-ring. At first I



thought this was a bold fashion statement, not the norm for U/W housings but in the field I realized that debris and hair popped making the O-ring easier to service and keep clean.

The lime O-rings are also carried over to the ball heads on the grips and the Logo as well. The grips are very solid and held in place by a single large Allen bolt which allows the grips to be removed easily for transport. The grips include standard ball head mounts for strobe and video support arms as well as other accessories.

You can also add spacers to the grips for large hands and heavy gloves. Because the housing is small and has several controls on top there is no room for extra accessory ball heads to be mounted. Marelux instead offers twin Y-ball heads and an accessory mounting handle which has room for several additional mounting balls over the top of the housing.

The new MX-A1 housing features M16 & M24 bulkheads with the M16 on the rear housing plate for the vacuum valve. The M24 bulkhead is added to the front of the housing for HDMI output connectivity.

The vacuum valve is easy to install and remove with a simple tool and uses a standard vacuum

pump that fits over the red valve once the water proof cap is removed. The M16 valve and pump are sold separately for \$166.00 US. The vacuum electronics come installed in the housing and work as both a moisture detector and as a vacuum detector with the valve.

A red button on the inside rear half of the housing is pressed to activate the vacuum system. A yellow blinking light starts flashing on the rear housing plate and the housing plate is then sealed to the front section of the housing. The vacuum is then drawn and when the flashing light turns solid green the housing is ready to go into the water once the waterproof cap is reinstalled.

To release the vacuum the waterproof cap is removed and the red valve is pulled UP and once the light turns to red the vacuum is fully released.

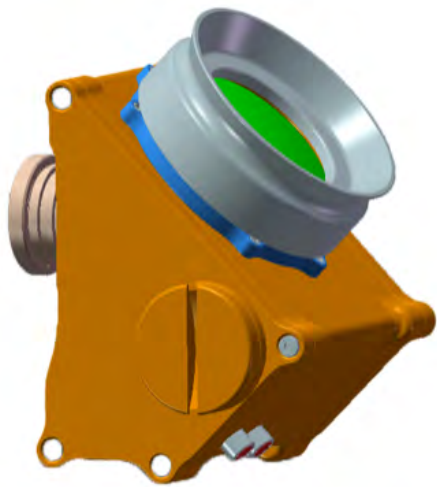
I average over 100 dives a year and I change the alarm system battery once a year in all housings as a routine. I also recommend carrying spare batteries for all of your needs when traveling just to be on the safe side.

The MX-A1 housing has a twin locking system to secure the front half of the housing to the rear. To unlock push in the two buttons on the bottom of the locking levers and turn the levers up until they stop.

To lock the housing reverse the process once the rear half of the housing is in place against the rear O-ring.

The housing has corresponding levers, push buttons and control dials for every function on the camera body. These controls are well placed and should be easy to use even with gloves. The rear half of the housing has a large LCD window and an optical glass pickup finder for the outstanding A1 EVF. Marelux is developing an angled viewfinder for the LCD screen that also includes depth and temperature readings at the bottom of the screen. I have no release date for this accessory.

The pickup finder can also be removed from the rear of the housing with a simple tool and I am sure there will be an optical viewfinder for the EVF offered soon perhaps by an after market company like Inon. A large optical viewfinder really helps those of us with aging eyes who are seeking better critical focus and composition. Marelux is also developing a 45 degree optical viewfinder for those of use with aging eyes who are seeking better critical focus and composition. Marelux intend to include a depth gauge powered by a small CR2 battery in the viewfinder which will be useful for those of us trying to maintain a frame of reference



while blackwater diving.

The port locking lever is on the front lefthand side of the housing and the lens release button is on the right viewed from the front of the housing. This allows you to remove the port or port adapter and install or remove a lens without removing the camera or even opening the housing. This is a very useful feature because larger lenses like the Sony FE 12-24mm F/2.8 GM zoom must be mounted from the front of the housing.

The ports and port extensions use the bayonet locking system and all have an additional locking device for extra security. All ports and extensions use a single lime green O-ring. Marelux also includes five inch rubber caps for the housing body, port extensions and ports which stay very secure once mounted. Marelux also offers Nauticam to Marelux

extension ring 20 and Sea & Sea to Marelux extension ring 20 so that S&S ports and Nauticam N120 ports and extensions can be moved between housings. The Nauticam extension ring also accepts the WACP wet lenses. The port rings do not support the Canon EF 11-24mm F/4 lens. Both extension rings retail for \$200.00.

The top of the housing features two threaded fiber optic ports supplied with protective caps for optical sync cords. I used the optical cords that push into the ports with the 45 degree ends. These ports work very well and at no time did I have a cord fall out of the port.

I tried the thread-on caps from Sea & Sea and Nauticam but they would not fit onto the slightly larger optical ports threads. Marelux intends to market cords of their own design so the thread-on type may be coming

soon. Compatible strobes are triggered using the Marelux manual flash trigger for Sony Alpha-series cameras with universal fiber optic cables.

The Marelux fiber optic flash trigger is compatible with many flashes including Inon Z-330/type II, Z-240 type 4, S-2000, D-2000 type 4 and many other fiber optic flashes. The Marelux flash trigger is manual and does not have TTL function. The flash trigger is mounted over the camera hot shoe and uses two batteries that provide thousands of flashes. The two batteries are easily replaced using a single Allen tool. Just plug the hot shoe into the camera and you are ready to go.

The trigger only turns on when the camera is turned on and shuts off conserving battery power when the camera is turned off. The Marelux flash trigger has excellent recycle times allowing you to shoot between six and ten frames a second if your external strobes recycle times can keep up. The Sony/Nikon manual flash trigger lists for \$198.00 as an accessory.

Marelux also offers the Smart Optical Flash Tube for \$470.00 with \$80.00 docks for Inon Z240 and Z-330, Retra Flash Pro X plus Sea & Sea YS D2/YS D3. This is an optical snoot with a built-in aiming light which switches off when the strobe is fired. The light shape can be adjusted

by a built-in dial with diameters from 2mm to 60mm. This is a product I hope to review in a future article.

The Sony A1 with mechanical shutter will sync up to 1/400th sec. in full frame and up to 1/500th sec. in APS-C mode. In my previous Sony A1 article UWP #120 I said that you needed a proprietary TTL flash trigger to access sync speeds above 1/250th sec. Since that article Jim Decker from Backscatter has found that if you go deep into the camera menu, there is a setting under “flash” called “flash Sync Spd. Prty” that over rides the auto setting from the factory and allows the 1/400th/1/500th (APS-C) flash sync with any flash trigger manual or TTL. Thanks Jim for that useful update. The A1 will also sync up to 1/200th sec. using electronic shutter.

For video users Marelux has made the camera tray and tray mount from metal rather than plastic to help disperse heat helping to mitigate the over heating issues associated with shooting in 8K and 4K/60 for extended periods of time.

When you secure the tray the camera is centered in the dome and held very securely in place. Marelux also offers a Sony A7S III camera conversion kit for the MX-A1 housing so that you can switch between cameras for \$248.00. They also have an SDI housing for the Atoms Shinobi



Diver entering the Ginnie Springs Ball Room Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/10, 1/125th sec



Diver entering the Ginnie Springs Ball Room Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/10, 1/125th sec

5 inch HDR monitor at \$2088.00.

All Marelux ports and port extensions are compatible with the current Canon, Nikon and Sony mirrorless camera housings. Dome ports use high quality coated optical glass and are sold in 140mm (not yet listed), 180mm (\$1366.00) and 230mm (\$2276.00). The ports come with a rubber body cap, a neoprene cover that has a velcro faster on the top side, a rigid zipper case for transport, a micro fiber cleaning cloth and spare O-ring.

The aluminum mount on the

inside of the 230mm dome port has beveled rings 360 degrees around the inside port opening. This helps to reduce light reflection back onto the port glass which will cause ghosting and flare in the camera lens especially in clear shallow water.

Field Testing the Marelux MX-A1 System

For this review I selected the Sony FE 90mm F/2.8 G OSS macro lens which easily handles the A1's large 50MP files and has exceptional

image quality. The 90mm macro was paired with the Marelux macro port 97 with 67 mm threads. The threads allow you to add a flip adapter and closeup lenses for macro beyond life size.

I also tested the Sony FE 12-24mm F/2.8 GM with the Marelux 230mm fisheye port II, 51103 zoom gear and extension ring 70 with lock. I also used the 230mm fisheye port II, zoom gear 60201 and extension ring 40 with lock for the Canon 8-15mm F/4L fisheye zoom with Sigma MC-11 lens adapter. The 230mm port has

two port blades each held in place by five Allen screws. These blades need to be removed to shoot at the 8mm end of the fisheye lens or you will get vignetting in the corners of the images. I also used two Inon Z-330's type II flashes for the wide lenses and two Backscatter MF-1 flashes for the macro images in this review.

I configured the 90mm macro lens with the focus limiter set from 1:1 to infinity in auto focus. With past Sony A7 cameras I set the focus limiter from 1:1 to 0.5 meters which renders everything from life size,



© PHIL RUDIN PHOTO 2022

Diver at Devils Ear Springs Florida, Sony A1, 12-24 F/2.8 at 12mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/11, 1/320th sec

1:1 to about 1:10 in focus. I find that most of the macro/closeup subjects I want to photograph fall well within that shooting range. By using the focus limiter on older Sony A7 series cameras I found that the lens was less likely to hunt and that the lens acquired focus more quickly than when it was set



© PHIL RUDIN PHOTOGRAPHY 2022

Florida Manatee, Silver Glen Springs Florida, Sony A1, 12-24 F/2.8 at 24mm, Marelux housing, Marelux 230mm II dome port, two Inon Z330 II flashes. ISO-640, F/13, 1/250th sec

from 1:1 to infinity. With the A1 set to AF-C with tracking flexible spot the camera does not hunt like it did with prior versions set to infinity.

I have also moved away from using a manual focus gear even for magnification greater than life size using a closeup lens. The Sony auto focus has become so good that I just don't need the gear anymore. Marelux does offer a focus gear for the 90mm macro and other macro lenses but I did not test it for this review.

I used the Backscatter and Inon Z-330 flashes with two 50 mm X 250 mm float arms and two 200 mm double ball arms. The float arms could have been eliminated with both setups and replaced by a second set of double ball arms.

For those of you thinking about moving from a sub-full frame system to the A1 full frame system the reduced depth of field at any given F/stop over sub-full frame can present a few issues. Firstly high megapixel cameras including the A1 and especially



Mantis Shrimp, Blue Heron Bridge, Sony A1, 90mm macro, Marelux MX-A1 housing, two Backscatter MF-1 flashes. ISO-200, F/16, 1/320th sec

the A7R IV tend to highlight flaws associated with many budget and even some higher end lenses, so choose wisely when making lens purchases.

Secondly the shallower DOF associated with full frame cameras requires more critical focus so taking a machine-gun approach to shooting may result in high numbers of poorly focused images. As I have harped on before in many reviews of full frame cameras with wide lenses you need to stay around F/13 or above if you expect to have decent corner sharpness with wide lenses. Water contact optics help with the corner sharpness issues

at lower F/numbers and the Marelux to Nauticam 20 extension will allow you to mount water contact optics like the Nauticam WACP-1. Marelux has a flat port and zoom gear for the Sony FE 28-60mm with 67mm threads in development as well.

In the water the MX-A1 housing is very well balanced and easy to use. All of the frequently used controls fall easily at your finger tips and after a few dives I did not find myself having to look away from the viewfinder to change any of my camera settings. For a new housing company just entering the market I was impressed with the

MX-A1 housings robust design.

Keeping in mind that my test housing was a prototype I had the following issues with the controls. The rather complicated stacked Sony A1 double wheel for the frame rate and AF selection dial requires that a vertical button on top of the frame rate dial be pushed down to change frame rates from single to higher speeds and bulb. I could move between some of the settings but not all on my test housing. The bottom AF select dial requires you to push in a button on the side of the dial and then move between MF, DMF, AF-C and AF-S selections. The description included with my test housing indicates that the control lever be set to the AF-C position on the housing and on the camera before it is placed into the housing. With the review housing these controls did not lineup so could not be used properly.

The second issue was with the UP arrow on the four way arrow display. When reviewing images you can push the AF-ON (also used for back button focus) lever and the image will enlarge and the point of AF will be centered in the frame. You can then use the four arrows to move the enlarged image around the frame to check corner sharpness or other concerns.

Three of the arrows worked flawlessly but the up arrow would sometimes send the image back to full frame as if you had pushed the OK

button. This was completely random so sometimes it worked and other times it would go back to the full image.

These are quality control issues which need to be addressed by Marelux before the housings are ready for shipping to retailers. I was easily able to work around the first issues by making changes with other control buttons or in the menu but they still need to be fixed.

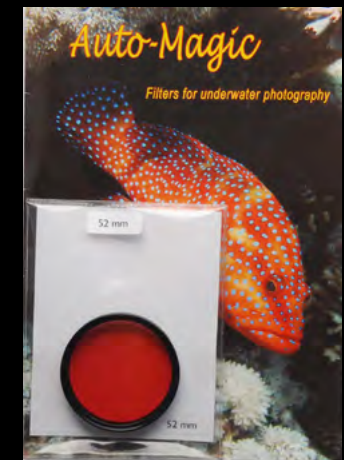
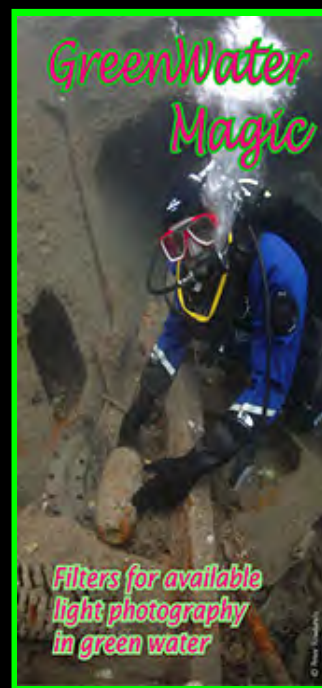
If the Sony Alpha 1 and Marelux MX-A1 housing are within your budget and you are seeking the very best in image quality, focus speed and overall performance for both stills and video this system may be for you. With a large selection of quality lenses this package should be at or near the top of your wish list.

Thanks to the Marelux and its staff for assistance with the equipment used for this review. Go to marelux.com for further info and current pricing in your area and also be aware the website is still being rolled out so return often.

Phil Rudin
Instagram

www.marelux.com

We've got you covered!



Magic filters are now available in 3 options. Original Magic for use in blue water with DSLR and compact cameras with Manual White Balance, Auto-Magic for compact cameras in automatic point and shoot mode. GreenWater Magic for use in green water with DSLR and compact cameras with Manual White Balance. Prices start at just £22.

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

www.magic-filters.com

The bearable lightness of the Nauticam and Nikon Z50

by Pete Atkinson

For the last seven years I was shooting with a Nikon D800 in a Nauticam housing, with the 9" glass dome and either a 16-35 or a 15mm fisheye lens. This produced beautiful files but it was big and heavy and a pain for travel. I could reduce the travel footprint by carrying only a 6" dome, no enlarged viewfinder and the 18mm and fisheye lenses, neither of which required port extensions with my custom hemispherical 6" dome.

Three heart operations, increasing age and the expense of travel convinced me that I needed the convenience of a smaller rig.

I looked online at a lot of options and settled on the mirrorless Nikon Z50. It had menus I could understand, I could use Nikkor F mount lenses with an FTZ adapter and it was small, light and inexpensive. 20MP was less than I would have liked, but sufficient for anything I was likely to shoot and it had the same sensor as the professional Nikon D500. I had used a crop sensors with the D200 and D7000 cameras and I loved the 10-17 Tokina, sometimes using it for a whole dive trip.

The FTZ adapter doesn't support the screw thread focus of the 10-17. Surely I could manually focus a fisheye? The Nikkor 8-15 zoom fisheye will work with the FTZ adapter and has a useful zoom range with a crop sensor camera (unlike on full frame for which it was designed) close to the utility of the 10-17, but it's heavier and expensive. And anyway, I already had a 10-17.

I also had a Sigma 8-16 wide rectilinear, a lens I loved on a crop sensor camera. It has modern autofocus but initially it wouldn't focus with the FTZ adapter. However Sigma in Bangkok were able to adjust it so that it would work. It needs a 50mm port extension with the 8.5" Nauticam acrylic dome and the 35.5mm N100 to N120 adapter which has a crown bevel gear control which allows you to control the zoom.

With the Tokina 10-17 I wanted to control the focus instead, or ideally both! For manual focus I made a plastic gear extension from a PVC pipe coupling. The Nauticam 10-17 zoom gear (without the inner ring) is a push fit in one end. The other end

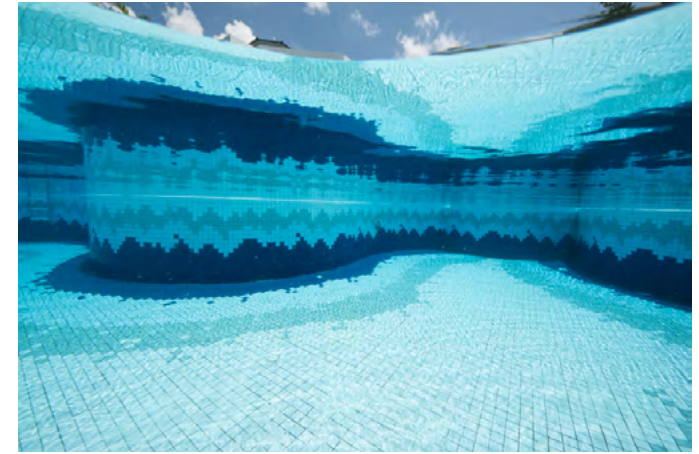
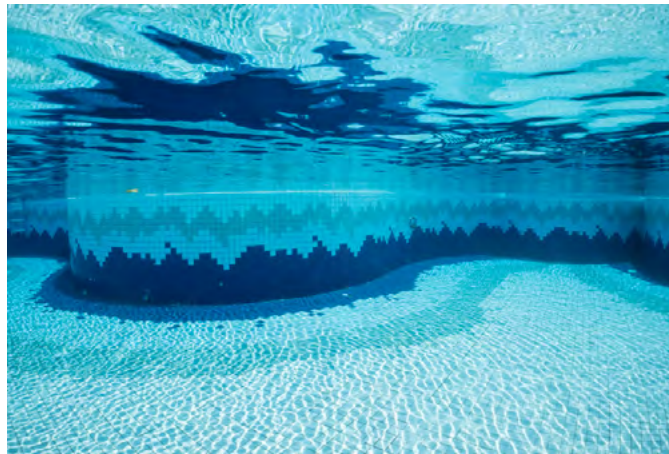
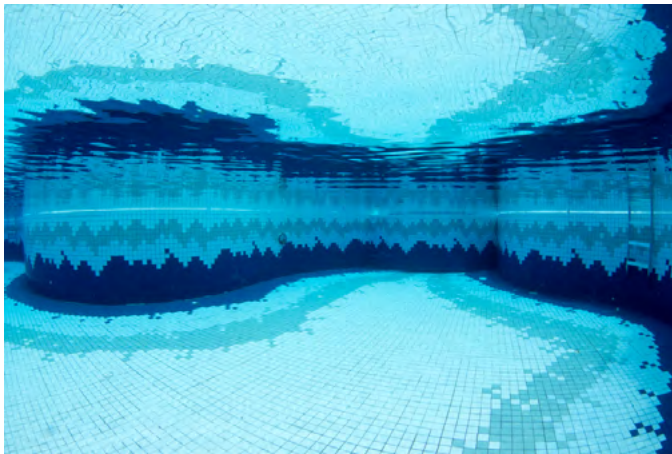


fits over the front of the lens and is secured to the focus ring with three plastic grub screws. Since I use the 10-17 mostly at 10mm, the lack of zoom wasn't a huge drawback.

But to control both zoom and focus I needed something else. Zoom was controlled with the normal zoom gear. I drilled a hole through the back-plate of an 8" Aquatica dome port (for

Tokina 10-17 with Nauticam zoom gear and home-made focus gear





Three pictures from the same vantage point. Left with the Tokina 10-17 and FTZ adapter at 10mm. Note the barrel distortion and angle of view. Centre is with the WWL-C with the 16-50 lens at 16mm. There is some barrel distortion. Right is with the Sigma 8-16 on the FTC adapter, 50mm extension and 8.5" acrylic dome port. Noticeably wider than the WWL-C and no barrel distortion.

which I had an Aquatica to Nauticam adapter) put a control through with a quadrant gear made from a radio-controlled helicopter main gear. This meshed with another part of the same main gear which was glued to a PVC drainpipe band which fitted on the focus ring of the lens. This worked, but obviously would be of limited use for fast action where the expensive 8-15 zoom fisheye would shine.

For shooting over/under pictures I noticed that if the lens was focused in the right place at f16, I didn't need to change focus at all. The focus peaking blinkies are a great help in seeing what is roughly in focus, especially shooting over/under. It was an interesting exercise putting manual focus into a dome port, but I wouldn't recommend emulating it!

I was keen to try some of the water contact optics developed by Nauticam. This influenced me greatly in my choice of a crop sensor camera. For full frame there is a WACP2, 140° degree corner to corner view. It costs over £6000 GBP and weighs

over 7kg. Or the WACP at 4kg for only about £4000.

For crop sensor or compact cameras, there is the WWL-C with 130° angle of view which costs less than £900 and weighs just over 1kg. This works with the Z50 kit lens, a 16-50. The result is like a rectilinear lens but with a lot of barrel distortion but it is a compact and convenient rig.

I was hoping that I could shoot over/under with this by trapping the water which floods the space between the WWL-C and the flat port it's mounted on with a 2mm O-ring but the topside quality did not seem as good as with a dome port. For shooting portraits of women underwater this seemed the ideal focal length. You can zoom through to a much narrower view if required.

Although I could have bought a D7500, the weight saving over a D800 seemed minimal and I wanted to try mirrorless autofocus for topside shooting.

The problem with phase detect AF on SLR

cameras is that to nail focus you need to adjust the AF fine tune on every combination of lens and body using something like a Lens Align. That's fine, unless you have four bodies and a dozen lenses - my wife is a wedding photographer. And then you find out that the AF fine tune value required for perfection varies throughout a zoom range and, slightly, with aperture! So perfect focus adjusted for maximum aperture for example, can be inaccurate at f4. Contrast detect autofocus used in mirrorless cameras looks at contrast on the sensor itself, so the mechanical inconsistencies of the lens and body don't matter.

Underwater it matters a lot less because either you are shooting wide-angle at smaller apertures with plenty of depth of focus, or you are using one body with a couple of macro lenses so adjusting AF fine tune is less of a burden.

Having used Nauticam housings since the D7000, I wanted to stay with Nauticam. The engineering is simply beautiful and there's very



With a fisheye, buildings in over/under shots look unnatural. Tokina 10-17 and FTZ adapter at 10mm. F16, 1/200th, ISO 200.



With the Sigma 8-16 lens the topside part of an over/under looks more natural. F16, 1/200th ISO 200

little that goes wrong. Apart from the 180° enlarged viewfinder, there were other things I could switch across to the new housing.

I don't like balls sticking up from the housing. Removing the flash arms is a slow and clunky procedure. I like dovetail plates on top of the handles so the flash arms can be removed quickly. That's why I love fibre-optic triggering too. So I switched across the dovetail plates. If you add these you need to modify the aluminium plates which fit in the top of the Nauticam handles. I like to use Duralac anti-corrosion paste on machine screws threaded into



aluminium so that they will come out later. At the very least use grease to keep salt water out.

The tripod mounting screw on the camera tray needs a coin to tighten, but it is simple to silver solder a piece of stainless TIG rod in the slot so that it can be tightened by hand.

The 16-50 kit lens needed a zoom



gear. I had an old Seacam gear which was the right diameter and module for the N100 port opening. Gluing in some strips of PVC drainpipe made it the right internal size which I adjusted to a push-fit with sandpaper.

There are a couple of



considerations with new cameras. We use Windows 7 and a perpetual license version of Lightroom and have no desire to get a subscription. So I have to use the free Adobe DNG converter to change the raw files to .dng before I can import them into Lightroom. This

I wanted to try the WWL-C particularly for this kind of picture in swimming pools where agility with a small rig is helpful and the zoom range is perfect. 1/200th F11, ISO 200, on camera flash and backlight flash



is simple and quick because I am not shooting thousands of pictures.

One thing I found to be a nuisance. I like to use the viewfinder for shooting but sometimes the monitor for reviewing. There's no setting for this. You need to cycle through the viewfinder only, monitor only and automatic display button to get what you want. Also the stills/video control was easily bumped into the video position. A blob of Blu-tack on the outside of the housing solved that.

When I was evaluating the Z50 I noticed that you could fire the pop-up flash at 1/32 power to trigger the fibre-optic controlled strobes, Inon Z240 strobes in my case. So I thought you could shoot a bunch of pictures like this. Not so; it will only fire when it is fully charged, so after a handful it will stop to recharge fully. So I bought an LED flash trigger from Hedwig Dieraert in Belgium and removed the prism mirror from the housing and this works perfectly if I need to shoot quickly.

I have enjoyed the learning experience setting up this new

housing. It's more complicated than my SLR housings, but it is smaller and lighter. I love shooting crop sensor again, particularly for over/under with the Sigma 8-16.

I haven't talked about macro because I haven't shot it for years. I told myself that it didn't sell commercially. Truth is, I could hardly see it!

Here are the numbers, somewhat sobering.

NAZ50, Nikon Z50, 180° viewfinder, Sigma 8-16, FTZ adapter, 100-120 adapter, 50mm extension, 8.5" acrylic dome: = 6.2kg

NAD800, D800, 16-35 with 70mm ext. 180° viewfinder, 8.5" acrylic dome: = 6.9kg

NAZ50, Nikon Z50, 180° viewfinder, Tokina 10-17, FTZ adapter, 100-120 adapter, 8.5" acrylic dome: = 5.6kg

Nauticam NAD800, D800, 15mm Sigma fisheye, 180° viewfinder, 8.5" acrylic dome: = 6.2kg



Nikon Z50 next to the NA-Z50 housing with the WWL-C water contact optic and the handle balls replaced with dovetails

NAZ50, Nikon Z50, 16-50, N100 Flat port 29, 180° viewfinder, WWL-C: = 5.1kg

One problem now, is that I want a full frame mirrorless for topside shooting and a few Z lenses...

Pete Atkinson
www.peteatkinson.com



Tech & Free

By Alexandre Hache and
Graham Owens



I glanced down at my computer and noticed we had already spent fifty-five minutes on the Roraima; it's time we made our way back to the bow to start our long ascent.

I start to visualise each photograph that I have taken from this iconic wreck in Saint-Pierre Bay - the holds, the machine room - so many fond memories of my recent visit.

The visibility is sub optimal and everything but the closest things are a blur. I strain my eyes to make out distant objects and suddenly, I distinguish a distant form; it slowly

evolves with grace and elegance.

Gradually, the mirage becomes clear; two long fins leaving the surface, the diver getting deeper with finesse and no fuss, no bubbles ... it's a freediver ! What a surprise, we are forty-five meters deep!

I quickly turn on my strobes and swim over to him. I manage to grab a few quick shots, then, as quickly as he arrived, he is gone, back to the surface for that life preserving next breath, but not before signalling to me that he will return.

Indeed, it seems that in no time he is back with us and accompanied by his colleagues. They willingly lend themselves to this improvised photo shoot. Some do not stay for long; others make for the sand, ten metres below us at fifty-five meters; others pose for me briefly.



Minutes of happiness pass. My rebreather buddy has already reduced his depth to limit the steadily climbing decompression obligation which is already much longer than planned. An exchange of facial signals with him and it looks like I have his blessing to stay a little longer.

The moment is magic, but I do not abuse it and increase the partial pressure of my rebreather to start the ascent along the shot line of our freedivers. The ninety minutes of decompression between twenty-four meters and the surface allow me to review and savour the pictures of these special athletes.

I know what their presence here represents because I have had my years of apnea diving too. It was at the Hyères club, with such champions of the discipline as Beatrice Rouvier, Alban Burlet and Stéphane Mifsud. They progressed to depths of fifty meters, whilst I was struggling to get beyond thirty.

My three computers finally confirm that my decompression is over. I surface and hasten to thank them. I meet Constance, Aday, Nicolas and the phenomenal Quentin; the man with the pink snorkel.

Olivier, the instructor of the Symbiose Apnea Club asks me to join them on a dusk dive a few days later and I eagerly accept his kind offer.

It is on my favourite dive site in Martinique, the falling anchors of St. Peter, that we find ourselves, at sunset. My dive buddy Ben accompanies me with a 33,000 lumens Big Blue LED light source. I meet Enora, Myriam, Sabrina and I recognize Aday with his giant mono fin.

I am asked if I have any special requirements; suspecting what surprises await me; I let them have 'carte blanche'; the freedom to choose what they want to do.

I am accustomed to dives beyond 100 meters



and the low light levels that we find at those depths and I signal to my dive buddy to position the light. The sun disappears gradually and we continue our dive in total darkness. Sardine shoals come to visit us, attracted by our lights, but they are wary that big predators could also invite themselves to the party!

The surprises are here: I recognize Enora in her climbing gear on the shot line and Myriam in the middle of the sardines, it makes such an original shot!

After 90 minutes spent at twenty-five meters

deep, I surface and the big question that any photographer faces: So, how are the photos?

I did not have any idea but fortunately, for me, they live up to the magnificent show they performed.

Thanks to BigBlue divelights for their support.

Alexandre Hache
Instagram
and Graham Owens

Whalesharks

by Gregory Sweeney

If you are planning to get away this summer, there is no better place than Isla Mujeres, Mexico in the Cancun area to combine unique and exciting whale shark encounters with a fun and vibrant beach vacation. The annual aggregation of hundreds of whale sharks to the waters off Isla Mujeres is the best place in the world to snorkel with full sized gentle giants granting encounters with multiple whale sharks and giant manta rays. Scuba, Mayan ruins, cenotes, beaches and fishing are all easily combined with the high quality in water experience of snorkeling with whale sharks. After years of difficult travel, Isla Mujeres is ready to offer a quality destination with easy travel.

Whale sharks can be found in all tropical and warm-temperate waters. The fish are largely pelagic, staying in the open ocean and thus, chance encounters with whale sharks in many diving locations are possible, but extremely rare. To have a chance to swim with and photograph whale sharks in an area already welcoming to tourists and divers is an opportunity not to miss.

The Cancun area of Mexico is perhaps the top destination for whale sharks because of the ease of travel and accessibility of this predictable aggregation. The whale sharks are feeding at the surface making them easy to find and experience in water. The aggregation is more predictable than other locations around the world, the sharks are not baited, and most are full sized adults.

The island Isla Mujeres is offshore of the tourist and beach haven of Cancun, Mexico and



The Cancun area of Mexico is perhaps the top destination for whale sharks because of the ease of travel and accessibility of this predictable aggregation.

Canon EOS 5D MKIV in a Nexus housing with EF15mm f2.8 fisheye set at ISO400 1/400 sec at f10

provides excellent access to the whale sharks and mantas gathered in the surrounding waters between mid-June and late August. Isla Mujeres is already known as a sport fishing destination which has long promoted catch and release of sailfish and mako sharks. This community of fishermen and captains were the catalyst for whale shark ecotourism.

Since the beginning, the Mexican government has coordinated with local biologists and local captains to create specific viewing and encounter regulations aimed to make this safe for the whale sharks, people, and sustainable.

Since the discovery of the whale shark aggregation, researchers have established tagging



Fishing boats on a beach of Isla Mujeres, Mexico
Canon EOS 5D MKIV with EF16 – 35mm f2.8 set at ISO200 1/400 sec at f10.0

and tracking programs and have been rewarded with astonishing maps of their travels and potential answers to mysteries such as where they give birth. The giant manta population has also been studied through the Manta Trust Caribbean project. They have established the first manta ray ID database in the Mexico Caribbean and have recorded over 450 individuals since 2013. I am proud to have contributed images for the id database each year. Through the research they have learned that some of the mantas are annual visitors to the area duplicating the actions of some

individual whale sharks.

When asked to describe what it is like in the water with whale sharks, I keep coming back to the image of standing in the street with a bus coming at me. It is thrilling and humbling to be in the water observing the life of a whale shark.

Options for encounters range from ½ day boat excursions to immersive 4 or 5 day programs lead by photographers and researchers with small groups and their own boats with full days on the water.

First you will see the whale sharks from on the boat: a dorsal



Whale Sharks from the surface
Canon EOS 5D MKIV with EF17 – 40mm F4L set at ISO500 1/640sec at f5.0

fin and the tip of their tail making a wandering sweep of the surface. As it approaches the boat you may see the upper lip of the wide-open mouth with water spilling in.

We get in the water by maneuvering ahead of a whale shark. Snorkelers and a guide enter the water and if all works out, the whale shark shortly thereafter comes straight at them. After keeping pace with it for a while it is possible to stop and look around to find another whale shark coming in your direction. We have also witnessed dolphins hunting the small fish also feeding on the bonito

eggs.

The giant mantas are usually separate from the whale sharks and when I lead groups, we set aside specific times to leave the whale sharks and seek out the mantas. The captains have become very good at finding them despite the challenge presented by the mantas staying below the surface. Most days we can find whale sharks, but not every day has the best conditions for spotting mantas so it is fortuitous that we have multiple days to work with in case of bad weather.

Photographing whale sharks and mantas

Special encounters need to be documented and cameras ranging from GoPro video and phones to professional rigs can get great images of whale sharks and mantas in the water and topside.

Using the Ambient Light

I try to pick my subjects based on not shooting directly into the sun. This is not always successful, but if I can get a whale shark with the sun to my back it improves the chances for a great shot. There will be multiple subjects and chances to seek out ideal light direction especially if you have chosen a multi-day trip.

Use a Fisheye Lens

Whale sharks are huge, and it is possible to get close to the subject while abiding by the regulations. Select the widest lens you have – ideally a fisheye prime or fisheye zoom lens: both will give you up to a 180-degree field of view with a reduced minimum focus distance. When you get as close to the shark as you can, you will get the whole thing in.

Fisheye lenses like a 10 – 17mm will be the most popular, especially on crop sensor cameras. Full frame shooters can use lenses such as a 15mm or a 8-15mm circular fisheye. Mirrorless cameras can use an

8mm fisheye.

Compact camera users will need to use a fisheye wet lens on top of the built-in lens. Without a wide lens, compact users will not be able to get the whole shark in the photo and will always have to be too far away.

Compared to photographing other moving subjects like dolphins and sailfish, the drag caused by your large dome port will not be a huge factor. Whale sharks are moving, but more at a fast-walking pace than a running pace.

Know the Regulations for Photographers

Use of strobes is prohibited

Rules governing the use of “selfie sticks” prohibit the use a stick to go closer to the animal than the rules allow so just a short handle is best.

Drones are prohibited without a special permit which needs to be obtained in advance.

Adapt Settings throughout the day

My method is to start with some manual settings and change them as the daylight changes. I use full manual, but Shutter Priority would be a good 2nd choice. Most of my images are at ISO200 with some ranging up to ISO320 to ISO640 on cloudy days. My shutter speed stays at



Full length side view. Canon EOS 5D MKIV in a Nexus housing with EF15mm f2.8 fisheye set at ISO500 1/160 sec at f5.6

1/250 sec or more. You must be able to shoot at a shutter speed fast enough to freeze the moderate movement of the shark and your body.

Shooting Techniques

The whale sharks will be feeding and can change direction at any moment, so pay very close attention to their movement to avoid touching them or being run over.

When using the wide-angle lenses such as those with 180-degree coverage, watch that your fins do not get in the shot!

Look all over the view finder and

watch for the tip of tail to swing into view before taking that full length shot.

Mantas: When we find mantas they are in smaller, tighter groups. They also move in circles or random directions up and down and parallel to the water surface. You will need to swim faster and be ready to change depth. They will spook and run away if you get too close. The best compositions are made by getting in front of multiple rays feeding in a line (“train”) and let them come toward you getting shots starting when they are still too far and then getting the



Giant Manta Ray feeding. Canon EOS 5D MKIV in a Nexus housing with EF15mm f2.8 fisheye set at ISO400 1/160 sec at f8.0

last right before moving out of the way. If you move at the right time you can follow up with a side shot as they swim by. The boat captains can help with dropping you in a position ahead of the moving mantas.

Types of Compositions

Behavior

Catching the wide-open mouth during feeding either from the front, side, or $\frac{3}{4}$ angle

Add drama to the feeding image by getting details of the water flowing into the mouth

Position yourself ahead of the shark and wait for it to approach. While photographing, move off to the side to get $\frac{3}{4}$ angle as it goes by. If it is too late to move, quickly submerge and swim to the side letting it pass over you. You do not want to get hit; those fins are hard and rough.

One of the most dramatic images you can take of a whale shark is a behavior common in Isla Mujeres where the shark shifts into a stationary vertical position to feed, called a “botella.” You will use every bit of your wide lens to capture the image.



*Dot pattern on the whale shark
Canon EOS 5D MKIV in a Nexus housing with EF15mm f2.8 fisheye set at ISO400 1/250 sec at f5.0*



Looking down into a whale shark's mouth as it come toward me. Canon EOS 5D MKIV in a Nexus housing with EF15mm f2.8 fisheye set at ISO500 1/160 sec at f8.0

Above and Below

When photographing the whale shark near the surface, try capturing a split shot with the fish underneath and the topside scene above. In some cases, the above subject might be boring: Just clouds or sky but try for a boat in the image to give scale.

Close up Details

Grab close up shots of eyes, gills, fins, spots, or remora fish when you find yourself too close for the full body shot. You will get chances to get a tail shot as the whale shark swims past you into the distance.

Get Variety

Getting lower in the water, looking up at the subject adds variety and drama to your image collection.

If a whale shark is below the surface, get an image of its back. The spots are one of the most interesting features of the whale shark.

Isla Mujeres is a great base for your Whale Shark Adventure

After a day out on the water with the Whale Sharks and Mantas, it is great to relax and dry out with a walk around through the streets of Isla Mujeres. Lined with fun shops

and great restaurants, it is safe and full of the festive feeling of Mexico. For casual or formal meals, varied but always delicious restaurants are plentiful.

In the last few years, murals of whale sharks, sailfish, and mantas have sprouted up all over town. It is a great street photography outing to find and photograph the best as you explore town and beaches.

Isla Mujeres is ringed with beaches and has a park and historic sight at its south end. The beaches are perfect for swimming and sunning: there might even be a hammock with your name on it. Numerous dive shops on the island will give you opportunities for diving or more snorkeling around the island such as the famous Underwater Statue Museum.

Most visitors come for the unequalled marine wildlife encounters, but Isla Mujeres is a holiday destination as well: the world-famous whale shark and manta encounters is only the beginning of your adventure. While travel is still recovering, Isla Mujeres provides a quality summer get away full of enriching wildlife encounters to appeal to the whole family as well as seasoned underwater photographers.

Gregory Sweeney
www.gregorysweeney.com

Gregory Sweeney is a Wildlife Biologist and spent many years working for the National Park Service. He believes in conservation through education and his underwater photography and group trips supports these efforts. He has published books of his manatee images and uses the images to support manatee conservation.

Gregory shares amazing marine wildlife locations with photographers and divers through his trips and photo workshops. When not in the water he manages a small safari lodge in South Africa which is the base for his special group safaris. Join Gregory Sweeney on an upcoming adventure:

July 2022 Whale Sharks at Isla Mujeres, Mexico

November 2022 Magdalena Bay Striped Marlin Sardine Run

May & September Photo Safari in South Africa



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.

The Future from the Past

By Brook Peterson

When I got scuba certified, I never dreamed how much it would change my life. Before scuba I was ignorant of how vital the world's oceans are to life on earth. But the more I began exploring the marine environment, the more I learned about efforts to conserve this valuable resource. Human activity can devastate these fragile environments, but human activity can also heal them.

Such is the case in Aqaba, Jordan. Aqaba is situated at the northernmost tip of the Red Sea in the Gulf of Aqaba. It is the only city in Jordan that has contact with the coastline. Because of its semi-enclosed form, the bay is susceptible to pollution, over-fishing, and consequently, the destruction of marine habitat. But fortunately, environmental advocates are making a difference. Surprisingly tourism is one of the tools they are using to revive local waters.

The Jordanian king, Abdullah II and his son, Crown Prince Hussein bin Abdullah are scuba diving enthusiasts. They have taken a "hands on" approach to ruling Jordan which includes an active role in preserving and restoring their coastal waters. In July 2019, under his direction, a tourist attraction was created that is unique and aimed at restoring the over fished sea as well as encouraging tourism.

Enter the world's first underwater military museum. These decommissioned historical pieces of military machinery and vehicles are arranged on



Nikon D850 in a Sea & Sea MDX850 housing. Nikon 8-15mm fisheye lens at 15mm. 1/60 @ F14. 500 ISO.

the sea floor in a battle formation. The purpose of the display is multi-leveled. On its most basic level, the museum serves as a tourist attraction. But it is much more than that. It is an effort to restore a thriving ecosystem.

There are many factors that contribute to the collapse of a marine ecosystem. Some of these are over-fishing, pollution, climate change, ocean acidification and various human activities. Over-fishing, for example, may deplete the larger fish in

the area to the point that the smaller fish have no predators. Without predators these small fish can explode in population until they have depleted the water of needed oxygen, or nutrients necessary to support reef life. In turn, the remaining fish leave the area to avoid starvation or suffocation. When the ecosystem has collapsed, even the coral reefs die which are necessary to support the growth of new fish populations.

This is where the sunken treasures of the



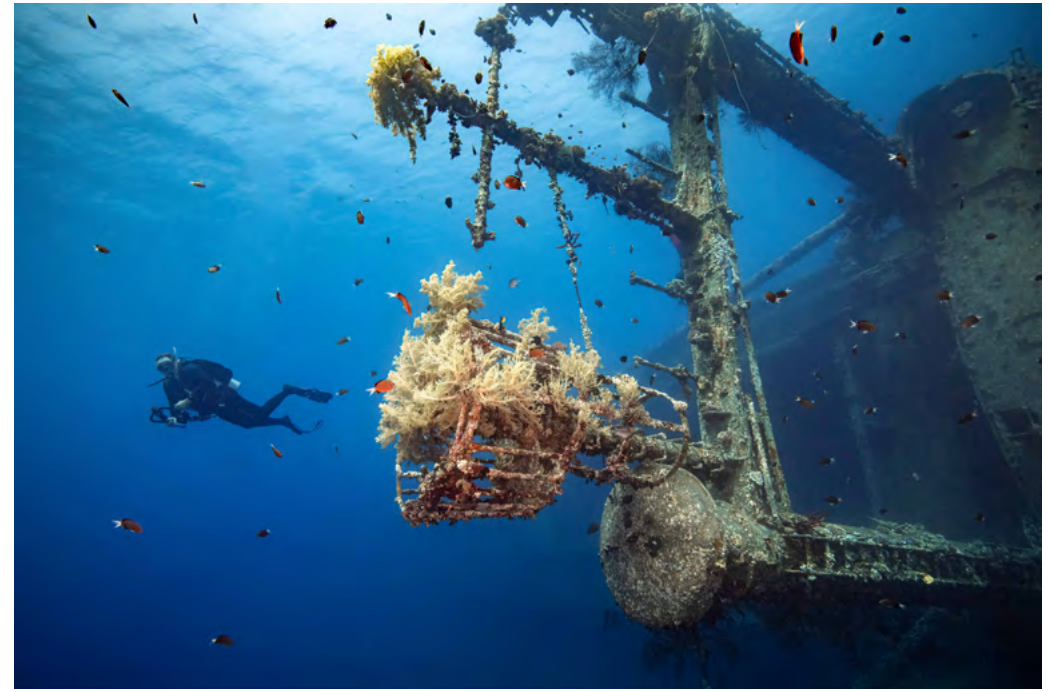
Cedar Pride. Nikon D850 in a Sea & Sea MDX850 housing. Nikon 16-35mm fisheye lens at 16mm. 1/60 @ F14. 400 ISO.

military museum come in to play. The vehicles sit on the sandy floor of the bay away from the shore where healthy corals exist. These vehicles provide places for new coral growth, and nursery areas for young fish populations. The vehicles were meticulously cleaned before they were submerged so that they provide an ideal environment for marine organisms to thrive.

In addition to providing a nursery for a budding marine ecosystem, the military museum is a unique treat for scuba divers to explore. Tourism

quadrupled in Aqaba between 2015 and 2019 which caused some stress to the existing coral reefs. The military museum relieves these coral reefs from the pressure of too many divers while improving the condition of the marine environment.

There are currently nineteen vehicles on display in the military museum. These include two helicopters, tanks, cannons, a military ambulance, military transport vehicle, and several smaller vehicles. The two helicopters are at the deepest end of the display and sit at 28 meters/92 feet.



Nikon D850 in a Sea & Sea MDX850 housing. Nikon 16-35mm fisheye lens at 16mm. Two Retra Pro strobes. 1/60 @ F14. 400 ISO.

The shallowest vehicles are two jeeps which sit in just 3 meters/15 feet of water. The site is accessible from the shore or by boat and snorkelers can enjoy the display as well.

Creating artificial reefs is nothing new in Jordan. At the request of King Abdullah II, several ships, including the Cedar Pride, a Lebanese freighter sunk in 1985, were scuttled and now rest on the ocean floor.

The Cedar Pride is a good example of how important an artificial reef can be to a marine environment. After more than 35 years under water,

it has been colonized extensively by coral growth. A noteworthy example is the crow's nest, which is covered in soft corals and provides refuge for small fish as well as an interesting structure for divers to explore. Well within recreational dive limits of less than 30 meters/92 feet at depth to just 7 meters/22 feet at its shallowest point, the wreck is ideal for novice and experienced divers alike. It is a short swim from shore and is accessible to snorkelers as well as divers. In addition, currents are mild or non-existent and the shallow waters

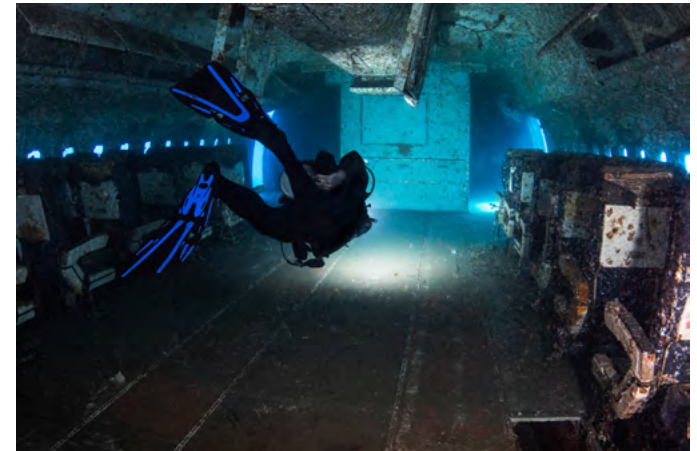
are warm and clear.

Perhaps two of the most exciting wrecks that have been scuttled in recent years are not ships at all, but airplanes. The Hercules C130 was scuttled in 2017 and is one of the most popular dive sites for recreational divers. It sits in 12-17 meters/ 39-55 feet of water and is accessible by boat or from shore. It was broken apart by a storm early in 2020 and now houses large schools of sweepers and glass fish. Soft corals hang from the wing and other marine life has colonized the cargo hold.

The other aircraft is the Lockheed Tristar 1011 which became the latest artificial reef in 2019. This airplane is a passenger jetliner and contains some interesting details such as the cockpit, bathrooms, food prep areas, passenger seating, oxygen masks and a few humorous surprises. It was placed on a sandy bottom away from the reef in 15-28 meters/ 49-92 feet of water. There is a swim through in the tail area of the jetliner where divers can enter the air intake from the inside of the plane and exit to the outside.

Tech Divers can enjoy the Taiyong Shipwreck believed to have been scuttled in the late 1990's. This wreck sits in 35-58 meters/114-190 feet. It features a large crane and is covered with corals and other marine life. In addition, the Al Shorouk is a landing craft laying in 38-60 meters/124-196 feet and provides more opportunities for tech divers to explore.

Currently there are twenty-five wrecks to explore along the Aqaba coast that are providing sanctuary for young marine life and a haven for scuba divers. The fish populations are beginning to make a comeback which benefits the local fishermen. Dive centers such as Deep Blue Dive Center organize regular cleanups to keep the sites



The Hercules C130 Aircraft Carrier

Life inside the cockpit of the Hercules C130 Aircraft Carrier

Nikon D850 in a Sea & Sea MDX850 housing. Nikon 8-15mm fisheye lens at 15mm. Two Retra Pro strobes. 1/60 @ F14. 500 ISO.

The cockpit area of the Lockheed Tristar L 1011

A Diver explores the Lockheed Tristar L 1011 Passenger Jetliner

Nikon D850 in a Sea & Sea MDX850 housing. Nikon 8-15mm fisheye lens at 15mm. Two Retra Pro strobes. 1/60 @ F14. 500 ISO.

free from trash that blows into the water from shore. By all appearances, the Jordanians have created a successful model for conservation that benefits the environment, the economy, and the tourists.

How to dive it

Best Time to Dive: Diving is good all year round with water temperature always above 18° C/65 F. The best time is from September-October



*A Diver explores tanks and the military ambulance.
Nikon D850 in a Sea & Sea MDX850 housing. Nikon 16-35mm fisheye lens at
16mm. 1/60 @ F14. 400 ISO.*

when the water is 23-27 C/75-82 F but the air temperatures have begun to cool.

Getting There: Flights to Jordan enter at Queen Alia International Airport in Amman. From there travelers can take a short one-hour flight to King Hussein International Airport in Aqaba or take an inexpensive bus called Jett bus which runs daily between Amman and Aqaba and takes four hours.

Resorts and Hotels: There are many resorts and hotels in Aqaba City and several dive shops along

the coast. Deep Blue Dive Center is a five star PADI dive center and is located in the Tala Bay Resort area. They offer hotel pickups from the city. There are Air BNB units available in Tala Bay, a Movenpick Hotel and the Grand Tala Bay Resort among others if you prefer to stay near a dive center.

Attractions Close By: The three main attractions in the area are Petra, Wadi Rum, and Aqaba and together they form what the locals call “The Golden Triangle.” Petra is an ancient city ruin less than a two-hour drive from Aqaba and the beautiful Wadi



*Smaller vehicles in the underwater military museum
Nikon D850 in a Sea & Sea MDX850 housing. Nikon 16-35mm fisheye lens at
16mm. 1/60 @ F14. 400 ISO.*

Rum desert is only one hour away by car. You can take a jeep tour in Wadi Rum and stay in a Bedouin camp for the night.

Entry: Purchase a Jordan Pass before you leave home if you plan to visit Petra or any other attractions while in Jordan. The Jordan Pass gives you entry into more than 40 attractions in Jordan and the cost of your visa is included in the pass. For more information, including Covid-19 requirements, visit <https://travel.state.gov>

Brook Peterson
www.waterdogphotography.com



www.uwpmag.com

Kit for sale

If you're looking for a specific piece of kit, enter a keyword (e.g. flash, housing, Ikelite, etc.) to show only the adverts you want.

Search UWP adverts



FOR SALE – SET of Sea & Sea YS 250 PRO

SET of Sea & Sea YS 250 PRO, incl.diffusers and TCL ball mounts, 2x batteries, 2x chargers (EU and UK). 5-pin Dual Sync cord-1pc, 5-pin Sync Cord N-2pc, 2sets - Double Ball Arm L and M, YS-TTL Converter, spare ... [More >](#)



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

Brand new and never taken underwater, 40 metre Sea Frogs (formerly Meikon) housing for the Panasonic GH5. Flat port for macro lenses and dome port for wide angle. No zoom or manual focus controls. Prefer sale in the UK and ... [More >](#)



FOR SALE – Aquatica Macro Port & 2 x Sea & Sea YS -120 Duo Strobes

Aquatica Macro Port (Manual & Autofocus) for any DSLR Aquatica housing with the 4 lugs bayonet fitting. £180. Sea & Sea YS -120 Duo Strobes with instructions & one Diffuser they are in good used condition and in full working ... [More >](#)



FOR SALE – Nauticam Na-d800 Housing for Nikon D800

Nauticam Na-d800 Housing for Nikon D800 Excellent condition. Full overall by Nauticam in December 2017, not in the water since. Vacuum check; electronic monitoring circuit installed, no vacuum system. 2000 euros + shipping ... [More >](#)



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

Nauticam flat port for Sony 28mm + sony lens 28mm +Nauticam flat port for Sony 90mm + sony lens 90mm+Nauticam trigger flash for sony. SOLD Can be sold separately. Total price 1260€ (does not include insurance and shipping) ... [More >](#)



FOR SALE – SEA & SEA MM2 U/W CAMERA WITH ACCESSORIES

SEA & SEA MM2 U/W CAMERA WITH ACCESSORIES: - Yellow SUB 50 TTL strobe / arm extension - SEA & SEA 16mm Wide angle lens MM-2 - SEA & SEA Macro lens ML-2/3T plus attachments - Removable view finder - ... [More >](#)



FOR SALE – Nikon D500 + Hugaftot D500 setup

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 >](#)

Please support our advertisers and help keep UWP free.



Small Ads

Sell your stuff You'll be amazed at just how quickly your unwanted underwater photography kit could be converted into hard cash with a UWP small ad. You can have your own UWP small ad from just £7.50 and it can have one photo as well as up to 100 words.

Check out small ads here

Buy your small ad here

South Africa and Mozambique

by Tim Rock

It may surprise some that South Africa and northern neighbor Mozambique are amazing dive destinations with myriad opportunities to see and photograph sea creatures great and small. And after the diving, the ever-evolving geography and safari animals never fail to bring even more eye-popping photo ops. One can truly spend months photographing these diverse areas and exploring new sites that are being found annually.

The extremes are also there. From the chilly waters of the Cape Peninsula and False Bay to the tropical warmth of Tofo, the different types of diverse marine life that one can see is a veritable candy store for the diver and underwater photographer.

Cape Town is a great city to visit even if you are not diving. Between the Table Mountain's sheer cliffs and the sun-speckled sweep of Table Bay lie many of the world's most famous beaches. And the great dining and superb jazz ensure evenings are always fun.

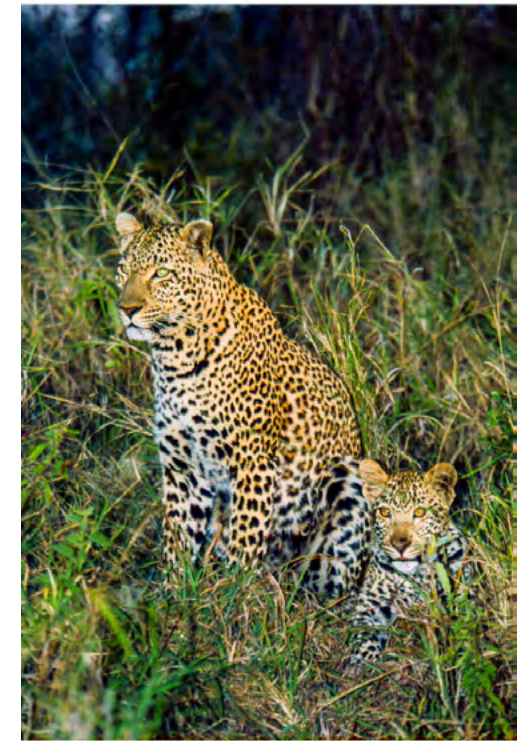
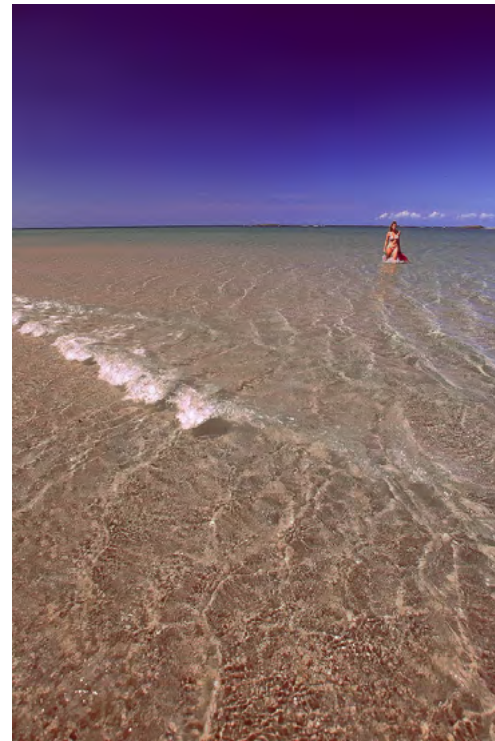
The movie "My Octopus Teacher" has given the Cape kelp beds a lot of attention. I am still trying to figure out how the "student" in that

film was able to free dive for minutes and hours with no wetsuit, but the rocky reefs, kelp inhabitants and light filtering through make dives south of Cape Town and inside False Bay magical experiences. There are seal colonies in this area and seal diving and snorkeling is popular too. Two new marine protected areas are the Robena Island MAP and Namaqua National Park MAP, which form part of 20 new national MAPs along the SA coast.

Castle Rocks are a very well-known landmark for Cape Town divers. It is well protected and the Rock provides a good lee side if the northwester is blowing.

The inside part on the Southern side is a popular training location. Here one can find sandy patches, kelp, interesting reef life and a nice route to navigate. This is also a great place to do night dives, when the basket stars open like huge lace shawls.

One can swim all the way around Castle Rocks, exploring the mini-walls and also the sections farther out. There are a few caverns and "swim-throughs" at this site. Since this is a marine sanctuary and any fishing and harvesting is prohibited,





the fauna is prolific and many species of fish can be found.

False Bay and Gansbaai at one time were a hotbed for viewing great white sharks, but their presence has declined. Mossel Bay is now where great whites are seen on the most consistent basis. Normally depicted as basically mindless, solitary and fearless, *Carcharodon carcharias* is truly an amazing creature. It is found in all of the oceans of the world, even tropical seas. They eat highly intelligent prey, so they have to be operating at a higher level than the simplistic way they have been depicted. Large brained animals, dolphins and small whales, eared seals, sea otters and birds can make up a good percentage of their diets. And they can react to their prey, juking them into the wrong move. This has been seen during seal chases where the shark actually counters a seal's feint and traps it into going the wrong direction. The research has shown that these animals are very complex predators. So much so, that they are believed to be both cognizant and sentient hunters, highly capable of making a choice. Shooting from the boat or doing a cage dive is a must for any ocean lover.



Heading up the coast through the Garden Route, Plettenberg Bay is a vast area full of action. One added attraction is the chance sighting of orcas, especially in January through April. The presence of orcas can make the dolphins scarce but if the orcas are feeding (sometimes on dolphins), the action is exciting and a sight seen rarely by but a few.

At RIY Banks off Port Elizabeth, the Banks is one of the premiere dive sites in the area rife with amazingly colorful encrusting marine life. Especially interesting are the basket stars that cling to sea fans by day and open into lacey fans at night to feed. Speckled klipvis sit nestled among the orange tubastrea corals and other clinging marine invertebrate life. Giving the reef brilliant color are red sea whips, yellow cold-water corals and various sponges. Nudibranchs are diverse and ubiquitous and the ever-present crinoids wave from the cracks.

It gets wilder after this, with The Sardine Run along the Wild Coast. The sardine run is without a doubt one of the most interesting events on the South African coastline. Usually starting late May each year and continuing through early July, the Natal Sardine Run comes to the southeastern



coast of South Africa. Millions upon millions of sardines (*Sardinops ocellata*) shoal on the east coast between Port Elizabeth and Durban.

Each and every predator in the oceanic food chain follows this sardine bonanza. Whales, dolphins, sharks, seabirds, game fish all join in the great feast. People who have had the privilege to experience the sea during this time will never forget the vibe and the adrenaline rush. This presents the

adventurous snorkeler and diver a chance to experience one of Nature's most exciting events. Ultra-lights and small choppers are used to scout the area and zodiacs equipped with radios communicate and zero in on a place to drop the divers. The topside photography can be as amazing as the baitball action. The annual Sardine Run unique to South Africa.

Heading up the coast we have The Protea Banks. So why dive here? If conditions are right, this is a superb spot to drift dive and to sight pelagic fish and sharks. It can be a hit or miss dive, although bringing a bait bucket usually helps the chances of sharks showing up. Oceanic blacktips, tigers, hammerheads and bull sharks all make an appearance.

The diverse reef profile is also good for a good assortment of marine life. Divers see the increasing number of colorful Indian Ocean reef species mingling with the silver cold-water fishes. Thus, schooling snappers, bigeyes and sweetlips can be seen as can kingfish and mackerel. Most divers go here for the macho experience to see sharks while hurtling along at warp speed.

Between Umkomaas and Scottburgh is the Aliwal Shoal. It has one of those "rated by the late Jacques Cousteau" honors as "one of the foremost dive sites in the world". This gives it a lot to live up to. But it is



equal to the task. It is truly an exciting and diverse site with plenty to offer all levels of divers.

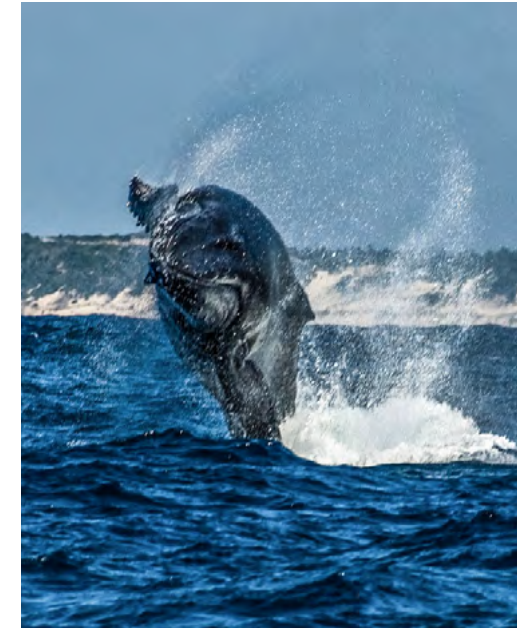
Aliwal Shoal is home to many different species of fish both tropical and sub-tropical. The expanded Aliwal Shoal Marine Protected Area was proclaimed in 2019. The MPA provides protection to the Crown Area - the main area of the Aliwal Shoal Reef popular with divers - and the extension protects deep reefs, endemic fish, catsharks and many mysterious species of the upper slope (to depths of 7200ft -2200m) that scientists are just starting to explore.

Watch for the northern migration of the humpback whale from June to October, the sperm

whale at odd times, minke whales year 'round and southern right whales from July to August. Common dolphins are seen June and July. The Natal Indian Ocean dolphin is here year 'round and occasionally the rare humpbacked dolphin.

Divers love the raggies that seasonally show up at Raggie Cave and the wreck The Produce is always full of fishy action.

Sodwana Bay is part of iSimangaliso Wetland Park. Its tropical reefs are fully protected. As a result, they teem with warm-water species, from countless types of colorful fish to manta rays, whale sharks, turtles and dolphins. The coral in Sodwana is also particularly



beautiful.

This is the start of the mile reefs that can be found from here and at just about every dive destination northward. Two Mile, Five Mile and the rest are named for their distance down the beach from the lighthouse on the bay's Jesser Point. None is far offshore and beach launches are done closest to Quarter Mile. Each reef area then has dive sites. Raggie sharks are here in season May thru December and they can be seen here in good numbers. Raggies like this site for the cleaning stations and stay on the shallows moving back and forth in a pattern in a small area. When conditions are really right, most local divers believe that is right before they



are ready to migrate, they gather in big groups of 20 to 30 sharks. At this time, they are big bellied pregnant females and present quite a scene with layers of big sharks hovering horizontally.

Later in the season, the currents bring plenty of plankton and mantas and whale sharks have been seen here. Look for Spanish mackerel, rays and other marine life.

Southern Mozambique

Not far from Sodwana is the Mozambique border and Ponta Do Ouro. It is 75 miles (120km) south of Maputo, and only 6mi (10km) from the South African border's Kosi Bay. The area was declared a Marine Protected Area and is managed to ensure that the reefs and their aquatic life retain their original pristine state.

Beach launches here can be fun as dolphins like to surf just offshore. A cruise down to the sites can produce schools of bottlenose dolphins, spinner dolphins farther

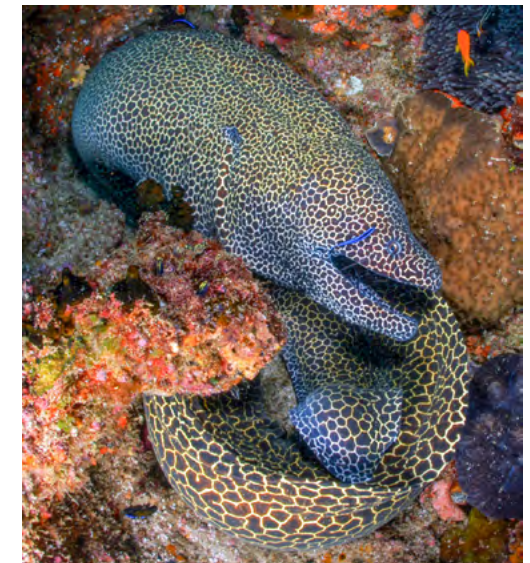
out and, in season, humpback whales and whale sharks. Underwater, Ponta do Ouro has a sandy shoreline with about 25 very different coral reef sites. There are shark drift dives similar to Protea Banks but generally deeper and with consistently better visibility. The sharks are mainly hammerheads, Zambezi and oceanic blacktips. Shallower second dives are spent looking for critters like big rays, rock cod, tropical fish and coral.

Moving north past Maputo are some amazing sites. As one ventures into Mozambique and heads up the two-lane blacktop, the look of the tropics becomes more evident. Coconut palms grace the roadside and the weather warms. A real sense of the tropics comes into play. At the literal end of the road is the town of Inhambane, up a peninsula from the main EN1 highway. Here a large pier jutting out into Inhambane Bay greets ships and the sun sets across the vast mangrove-lined peninsula. Coconut

trees have taken over the skyline and the traditional dhow sailing ships sit at anchor or come into port for the night, sails glowing in the evening sun.

It is from here a smorgasbord of dive bases can be accessed, each offering incredible diving and marine life. North of the pleasant city of Inhambane, at the tip of the peninsula, the mangroves merge with the sea and the marine life becomes even more varied. Tofo is pretty much this region's dive central and is quite popular. The mangroves are incubating grounds for all kinds of juveniles. Thus, the seas are full of unique creatures big and small. North of the famous Manta Reef, there are at least 20 sites with more being found all the time and they have some wonderful and rare surprises.

This is also a great place to see whale sharks and divers often see one and jump in on the way to a dive so



bring a snorkel when diving in Tofo. A lot of instruction takes place here too. The after-dive night life is fun and there are good restaurants and bars to



add to the fun atmosphere.

New dive sites are being found all the time. This coastline has so much to offer it can take many trips to explore it from The Cape to Bazaruto. What a wonderful chore!!

Tim Rock

[www. doubleblueimages.com](http://www.doubleblueimages.com)
www.oceandreamspacific.com

Tim Rock is an internationally published photojournalist who specializes in the ocean realm. Based on Guam in the Western Pacific Ocean, Rock has traveled to South Africa/Mozambique numerous times to work with white shark and South Africa diving pioneer Jean-Pierre Botha. The two have just updated a full diving guide to the coastlines of South Africa and southern Mozambique.



www.oceandreamspacific.com



Ocean Dreams Pacific apparel is both functional and fashionable. The images of internationally published underwater pro TIM ROCK are used to create clothing that provides comfort and protection... all with great ocean themes. - Leggings - Rash Guards - Face Masks - All-Over Print DriFit Ts - Tim's Double Blue Logo items - NEW!! Headbands and much more



Check our website for fantastic ocean theme clothing:

www.oceandreamspacific.com

Marshall's Mysteries

Do you know what these animals are, or what they are doing? Have a guess – answers on pages 60 & 61.



A

© Colin Marshall / Nature in Stock

Alor, Indonesia

image about 5 cm across



C

© Colin Marshall / Ardea

Amed, Bali, Indonesia

about 1 cm long



B

© Colin Marshall

Lembeh, Sulawesi, Indonesia

about 1/3 cm long

D Match the juveniles (left) with the adults (right)



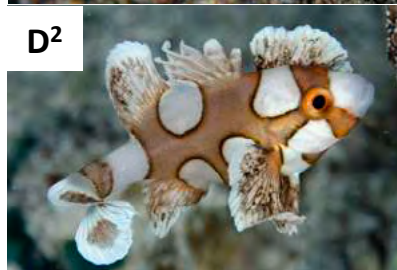
D1

© Colin Marshall



D4

© Colin Marshall



D2

© Colin Marshall / FLPA / Minden



D5

© Colin Marshall



D3

© Colin Marshall / FLPA / Minden



D6

© Colin Marshall / Alamy

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.

Parting Shot 1

Just after the pandemic reached us I decided to renew my underwater equipment. Time enough to study the settings, knobs and dials of my new camera and housing. And our garden could be used as a test lab for the camera, flowers and insects were perfect macro opportunities. Also it was time to deepen my knowledge so I followed an online course by a famous British underwater photographer. An excellent reboot. After that, there was little left than dream away till we had the opportunity to step into the water again.

Finally the day broke on that we could dive in the salt water lake in the south of our country. However, at the moment we wanted to get in, my lack of experience became apparent. I had forgotten to set back the cap of the valve system and had left it on my desk. After frantic telephone calls and a drive to a shop the valve system was replaced by a simple plug. By now, it was late in the afternoon. A little agitated I stepped into the water, but as the sun broke through the nice underwater calmness returned. Finally underwater, and look at the low sun! Time to use my acquired knowledge to catch the mood; no exciting subjects around, let's appreciate this algae.

The resulting image reminds me of the fantastic feeling to be under water again. And the chances local waters give us to improve our photography, till we can open up our horizons again.

Floris Bennema
www.zeezoom.nl



Agardhiella subulata in lake Grevelingen, Netherlands.

Olympus EM-5 III, Nauticam housing, Olympus 12-42 and Nauticam WWL-1, Sea&Sea YS-01 strobes, 42mm, f/5.6, 1/100 sec, ISO 200.

**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**

Parting Shot 2

After I jump in, on my way to the bottom I straighten out my strobe arms and position my strobes to a likely place for an image, turn on my camera and strobes and then look for subjects.

I was just about at this point when a scrawled filefish, *Aluterus scriptus*, appeared to be coming straight towards me, something most fish generally do not do. The majority of fish tend to turn tail and head in the opposite direction from bubble blowing divers.

Without looking at any settings, I put my camera rig between myself and a collision and pulled the trigger without even looking in the viewfinder.

The filefish veered off and continued on its way as I reviewed my shot. I usually try and set something reasonable on the camera when I put it into my housing after pumping the vacuum and in this case it all worked out: f/13, 1/100sec, ISO320.

I also nearly 100% of the time shoot with TTL strobe exposure, which nearly 100% of the time gives me a perfect exposure even with fast approaching subjects that are unpredictable. Had I needed to reach up to change the power setting on my strobes the fish and photo would have been long gone and/or over exposed had I been shooting on manual.

As the old saying goes but this time reversed, forearmed is forewarned.



Canon EOS 5D mark III in an Ikelite housing with a Canon EF16-35mm f/4 IS USM lens at 35mm, 2 x Ikelite 161 strobes in TTL mode. f/13, 1/100sec, ISO320.

David Fleetham

www.davidfleetham.com

www.ikelite.com/blogs/ambassadors/david-fleetham

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



Marshall's Mysteries - Answers

A



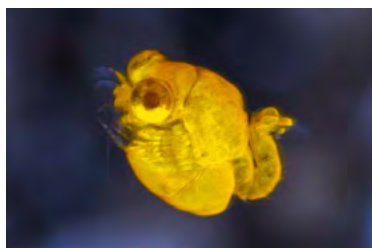
Tuberculate Night Anemone (*Alicia pretiosa*).

Carnivorous and asexual, ie can reproduce from either a single cell or a group of cells, in the absence of any sexual process such as fertilization.

Contain nematocysts that can “deliver a memorable sting” to capture prey and for defense. A nematocyst has a trigger which, if activated, fires a shaft in microseconds, delivering a toxin. Another good reason to not touch anything underwater, regardless of whether it looks soft and pretty...!

More detail on this anemone can be found on pages 328-29 of “Indo-Pacific Corals” by Joe Rowlett.

B



Mysis (*Idiomysis* sp), ie a crustacean.

Idiomysis have relatively large, puppy-like, endearing, eyes.

Sometimes called (Hovering) Opossum Shrimps (but they are not shrimps) because, similar to opossums, the female mysids rear their larvae in a brood pouch or marsupium.

Mysids can be cannibalistic, with adults sometimes preying on their young once they emerge from the marsupium. Not sure if the cute *Idiomysis* has these urges...

This Mysis can be found on page 145 of “Coral Reef Crustaceans from Red Sea to Papua” by Andrey Ryanskiy.

C



Juvenile Graeff's Sea Cucumber (*Pearsonothuria graeffei*, previously *Bohadschia graeffei*), which mimics poisonous *Phyllidia nudibranches*, notably the two below.



© Colin Marshall

Celestial Phyllidia (*Phyllidia coelestis*)



© Colin Marshall

Swollen Phyllidia (*Phyllidia varicosa*)

The adult, shown on the right, is obviously much larger than the juvenile and would be less successful in mimicking the much smaller toxic *Phyllidia nudibranches*. By this adult stage the sea cucumber have neuro-toxins of their own (allegedly similar to cocaine) in their cuvierian tubes that they eject from the anus when threatened.



© Colin Marshall / Biosphoto

More detail on this Sea Cucumber can be found on page 83 of “Starfishes and Other Echinoderms from the Tropical Indo-Pacific” by Andrey Ryanskiy.

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.

D

The Sweetlips juveniles & adults in the question are shown below, including intermediate phases. There are many reasons for the variation in patterns & colours, including :

- signaling sexual maturity
- camouflage (appearance may need to change if the fish moves to different feeding environments as it matures)
- disruptive patterns (to break up the fishlike outline)
- confuse predators with stripes (think of zebra herds) and spots (false eyespots)
- deliberately appearing different to the adults (who are targeted by predators)
- mimicry, for example, the juvenile Many-spotted Sweetlips mimics a toxic nudibranch or flatworm, even in its motion - head pointing down and undulating wildly

Painted Sweetlips aka Mother-in-Law Fish (*Diagramma pictum*)



Many-spotted Sweetlips aka Harlequin Sweetlips (*Plectorhinchus chaetodonoides*)



Oriental Sweetlips aka Oriental Blubberlips (*Plectorhinchus vittatus*)



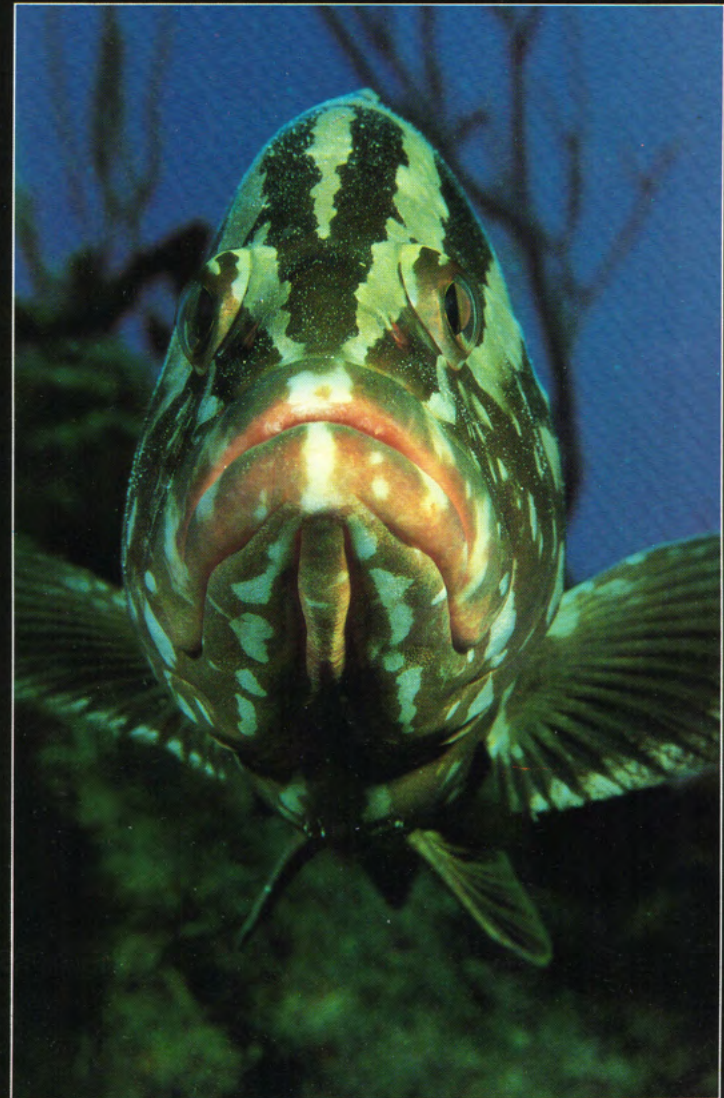
More detail on these Sweetlips can be found on pages 471-78 of Volume II of "Reef Fishes of the East Indies" by Gerry Allen and Mark Erdmann.

All images © Colin Marshall

UP Supplement

UP12
Nov/Dec
1988

Underwater Photography



November/December 1988

£1.95

CLOSER



The CU 001 Close Up Lens fits over the 35 or 28mm Nikonos lens and, with the camera set to minimum focus, will let you take pin sharp shots just 10" from the lens.

The glass optics ensure top quality performance and the aluminium body provides rugged protection. Complete the outfit with hot dip coated stainless steel probes and you have a lens system which is built to last and which will not limit your compositions.

It's the best selling close up lens in the UK and is value for money at just £69 inc VAT. (P&P £2.50)

WIDER



For many years, the Subawider lens has helped photographers to obtain high impact shots without having to pay the price of a Nikonos 15mm lens.

The lens screws onto the 35mm lens and increases it's coverage from a narrow 46° to an incredible 90° capable of making murky water appear much clearer.

The results you will get are 'full frame' - that is free from circular fish-eye distortion and no exposure adjustments are needed. At only £164 (P&P £5), it's no wonder why they are so popular.

SPOTTER



There is, quite literally, nothing to touch the Mitylite in terms of performance, size and price. That's why they are so effective and so widely used.

They have limitless applications but are perfect for flash aiming lights with their pencil-sharp beam (the Americans say it's a state of the art, high intensity, Xenon fired lamp module and dioptic computer designed reflector that's the secret). We say they're too bright to look at and will stay working when you're snorkelling to 2000ft (as you do).

Supplied with 2xAAA batteries, the Mitylite is just £8.95 inc VAT (P&P 1.50)

FLASHER



The Nikonos V with it's TTL flash metering is the most sophisticated amphibious camera around. Attach it to an Aqua F3 TTL flashgun and you have a system which will give you hassle-free exposures with your very first roll of film.

More powerful (and cheaper) than the Nikonos SB103, the F3 represents the best value TTL gun on the market today and we can't see how any other manufacturer can beat it.

4 AA batteries (not supplied) give a 28(m) GN with 100asa and it comes complete with mounting arm and baseplate for just £279 inc VAT (P&P £5)

FROM

Ocean Optics Ltd

Underwater Photography Magazine

Issue No 12
November/December 1988

Contents

5. New Products
6. UP Reviews Sea & Sea's 15mm Lens
8. Testing Time for Paddy Ryan on Mana Island
10. Write UP's
13. Dive St. Abbs with Andrew Mounter
16. UP in Antibes with Peter Rowlands
19. Handy Hints
20. Underwater Photography Workshop by Sophie Antipas
22. UP Reviews Amphibico's new Sony housing
24. Favourite shots; Martin Edge balances light
26. The Art of the Slide Show by Dr. Mia Buehr
28. Turbid Water Photography by Quentin Bennett
30. Short Ends and Competitions
31. Classifieds

Editorial

The likelihood of Underwater Photography Magazine being able to justify itself financially was always going to be an uphill struggle and, even though the hill hasn't been too steep, the costs of producing such a limited circulation magazine are beginning to get out of all proportion to the income. That's the bad news but, fortunately, there is also some good news.

The good news is that, in order to continue and to expand, we're incorporating Underwater Photography into SportDiver Magazine, Britain's brand new and first independent diving magazine for many years, due to be launched in January 1989.

The number of SportDiver pages will be at least double that of UP and you can rest assured that the underwater photography content will not diminish. In addition, the UK subscription rate will not increase so you will be getting even better value for money. The Europe and Overseas rates will have to increase to reflect the cost of postage.

SportDiver will be a bi-monthly magazine available on direct subscription, from UK dive shops and, hopefully, from a wide range of W.H. Smith newsagents.

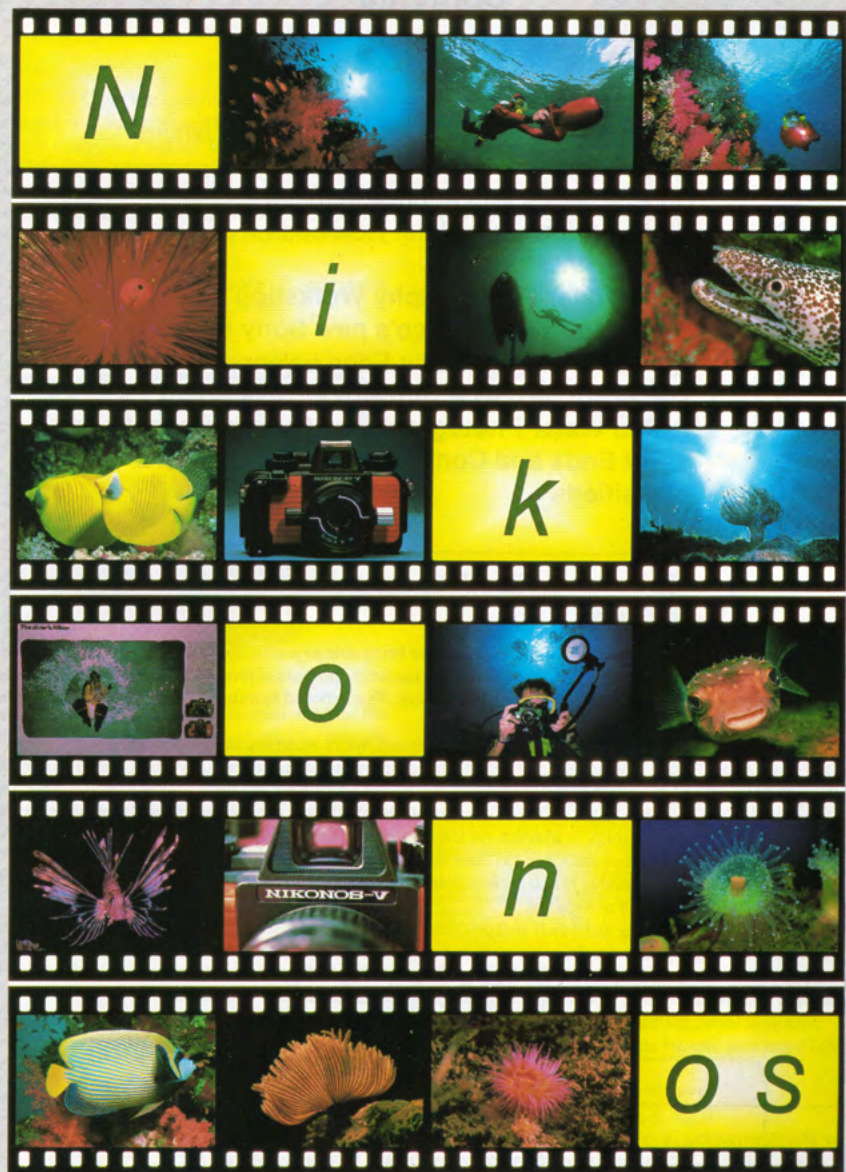
Since SportDiver is being published independently of any diving association/organisation, we can offer a different view on diving topics and techniques, keeping you informed on all aspects from all angles. And that's where you come in. We can't hope to keep in touch with everyone in the diving world and we will need you to let us know what you and your club are doing and, more especially, what you would like to see in SportDiver.

With your input, it's our chance to produce exactly what's required for the UK diving world as it prepares for the 1990's and then into the next century.

Underwater Photography is published bi-monthly by Ocean Optics Ltd

Subscriptions are available by mail order. Annual costs are £15 UK, £20 Europe and £25 Overseas.

CAPTURE YOUR IMAGINATION



Nikon

New Products from Photokina and elsewhere

Sea and Sea 15mm Nikonos lens



Sea & Sea are proud to announce the release of another Nikonos compatible prime lens - the wide lens 15mm F3.5 with a new optical viewfinder. Rated to depths of 60 metres (200 ft), with a stated angle of coverage of 96 degrees, which is slightly wider than the Nikonos 15mm, it permits a close focus of 0.3 metres (1 ft) to infinity, with a range of apertures of F3.5 to F22.

Construction is aluminium, 80mm D x 64mm L x 98mm W, it is relatively light at only 365 grams. The optics are corrected for use in water for optimum edge to edge sharpness free from distortion. It could prove to be a very popular alternative to the already well proven Nikonos 15mm lens since initial costings for the lens and viewfinder are around £499 including VAT.

A full review of this lens is included on page 6.

Amphibico Sony Housing



The F400 is Amphibico's latest version for Sony's new range of 8mm camcorders. The design is very similar to their existing V90 housing with built-in wide angle optics, interchangeable ports and an adjustable focus viewfinder.

No prices are available as yet but a full review of their V90 housing is on page 22.

Denz Betacam and Nikon 250 exp housing

For budding broadcast quality videographers, Denz of West Germany have

produced a self-contained housing for the Sony Betacam video.



Constructed from cast aluminium, the housing is very robust and has controls for all the required functions. A separate housing is provided for a monitor.

Also on show at Photokina on the Denz stand was a cast aluminium housing for Nikon F2 cameras with their 250 exposure back.

Prices were not available but further details can be obtained from Denz, Fer-

Canon EOS housing from Subal



This well respected Austrian firm announced their housing for the Canon EOS camera.

In keeping with previous Subal designs, the housing is a glove fit and extremely small with interchangeable ports and controls for all functions.

The Austrian price is 9800 Austrian Schillings and further details are available

Sea and Sea YS 200 flashgun

Another new product from Sea & Sea is the YS200 strobe which replaces the YS150.

Smaller and lighter than the YS150, the YS200 offers a higher guide number in both its full and half powers with approximately twice the number of flashes along with a faster recycle time. The slave func-

tion is still available but with an increased G.N. of 30 and a lower price (which could not be verified at the time of going to press), the YS 200 looks like a value for money improvement.

A full review will be included in the next issue.

Hugyfot Nikon F3 TTL



The Hugyfot stand at Photokina was kept busy with customers looking at the new Nikon F3 housing which has been updated to provide TTL flash facilities. In addition, the JetMarine range with built-in viewfinder magnifiers was on show. These housings are for cameras such as the Nikon F301 and the like, all of which have built-in winders.

EWA Marine Video cape



The EWA Marine video cape was finally unveiled at Photokina with deliveries expected in December.

Designed to keep video camcorders safe in the rain, the cape has an optical front port for top quality and under access for your hand to operate all of the controls.

UK price is expected to be around £45. For further details, please contact the

Sea & Sea's 15mm Lens

Ever since the arrival of the Nikonos 15mm F2.8 lens in the early 1970's, it has held the number one position in terms of desirability and performance and could well claim to have revolutionised the quality of underwater photographs. Such brilliance does not, however, come cheap for with a 15mm lens costing £1125 in the UK and the optical viewfinder being £189, this perfectionist's package takes some justifying.

This quality of performance had looked to be permanently unassailable since the costs of developing such a specialist lens (which can only be used underwater) are very high compared to the returns from such a small level of potential sales. That's one reason why the Nikonos 15mm lens is so expensive.

Enter Sea and Sea. A small, enthusiastic Japanese company who have, over the past decade, devoted the whole of their business to developments in underwater photography. Their first few products were aimed at the widest possible market with a manual flashgun, some extension tubes and a small range of Nikonos accessories. The investment needed to produce these was small and the returns turned out to be comparatively rapid. The profits were ploughed back into the company until it was able to invest in the design of a 15mm lens of its own and so complete its range of Nikonos lenses. Their prime lenses are now the 20mm and 15mm as well as the supplementary SWL16, designed for use with the 35mm lens. Outside of Nikon, the Sea and Sea range of Nikonos lenses is the most comprehensive.

And yet even before we look at the lens and optical viewfinder, there is one major point on which the Sea and Sea will have a big advantage and that is the price. The UK importers inform us that the retail price will be just £499 inc VAT. Now that is still a big lump of money but it is also a huge saving on the Nikon price so let's see if there is a compromise in performance.

Sea and Sea WL15

The Sea and Sea WL15 is a compact 15mm F3.5 lens with an angle of coverage of 96° underwater. This is very, very slightly wider than the Nikonos 15mm but the difference is so slight it will be unnoticeable in practice. Optically there are 10 elements in 8 groups with a shallow domed front port. This low profile front element does not protrude and is well shaded by the



(Above) The WL15 with its viewfinder NVF15 is a smaller package than the Nikonos 15mm yet it performs equally well and costs much, much less. At £499 in the UK for the lens and viewfinder, the WL15 and NVF15 are 62% cheaper than the Nikonos 15mm and optical viewfinder!

front of the lens with its 77mm diameter filter threads. The housing is black anodised aluminium so it will take the inevitable knocks and be fully operational down to 60 metres (200 ft).

Weighing 365 gms and measuring 80x64x98mm, the WL15 is a compact lens with controls for aperture and focus at 3 and 9 o'clock. The focus range is from 1 foot (0.3m) to infinity and the apertures are from F3.5 to 22. The Nikonos 15mm does have a maximum aperture of F2.8 which is just under a stop faster than the WL15 but, with the non-reflex Nikonos, this is not a noticeable limitation except if you regularly work in low light at full apertures and need the faster lens to reduce exposure times.

A small depth of field sticker is provided on the lens to give a few basic ranges for apertures F3.5, 8 and 16 at focus distances of 0.4m, 1m and ∞(infinity). A comprehensive chart is printed in the instruction sheet supplied with the lens. It is the wide depth of field which is so attractive

with this angle of lens for, focused at 1m with F8, you will be sharp from 0.5m to ∞! That virtually eliminates the need to focus but, for top sharpness, you should always focus on the subject.

The WL15 will fit on all Nikonos models and is fully compatible so it will not affect the available light metering on the Nikonos 1Va and the TTL metering on the Nikonos V.

The Nikonos bayonet mount is naturally compatible with the Nikonos but there is a difference in design in this area. In order to ensure exact focus at all depths, the Nikonos 15mm and all of their other lenses are sprungloaded so that the lens elements are always in exactly the same position in relation to the film plane, regardless of the pressure on the camera which may, at depth, flex slightly. The Sea and Sea WL15 does not incorporate this design so the lens position might change a fraction and alter the focus slightly but the depth of field should accommodate this possible movement. The



(Above) The viewfinder only indicates 90% of the area covered by the lens which is not ideal. The NVF15 slots into the camera's accessory shoe and is secured with the large knurled knob.



(Above) The depth of field sticker shows some of the combinations but a full chart is included with the instruction sheet.

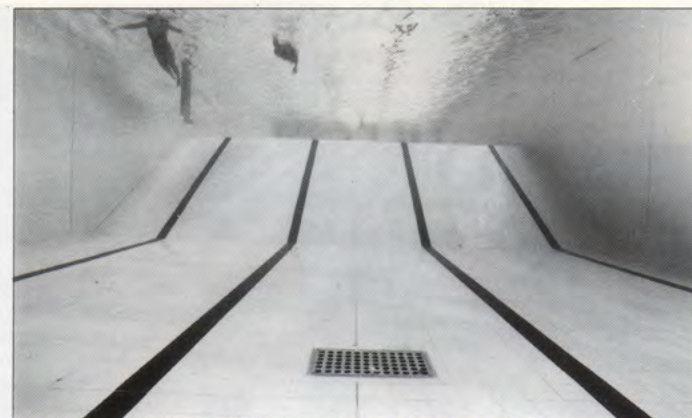
(Below) The lens elements are not sprungloaded so their position in relation to the film may vary very slightly if the camera body alters under pressure. This is a very slight possibility and the depth of field will probably cover any small focus changes.



likelihood of this happening is very slim at the depths to which the Nikonos is operative but this is a classic illustration of the Nikon design being expensive perfection whereas the Sea and Sea solution is perfectly practical and results in a considerable saving.

NVF15 Optical viewfinder

To complement the WL15, Sea and Sea have produced an aluminium housed optical viewfinder, the NVF15,



(Above) Swimming pools provide ideal locations for testing wide angle lenses. Their tiles are a perfect test chart for geometric and distortion performance and, being a consistent size, calculations can be made to establish angles of coverage. The Sea and Sea WL15 performed extremely well, even at wide apertures, with minimal distortion.

which slides onto the camera's accessory shoe and is secured with a large knurled locking knob. It is very bright and clear with 3 glass elements in a 3 group design which covers 90% of the scene you will get on the image. That's quite a loss of coverage but will mean you should never have the subject too large in the frame. It would surely have been better to design the viewfinder to give exactly the same coverage as the lens.

The fixed design viewfinder is parallax correct at 1.5 metres so that if you are shooting subjects closer than that you must tilt the camera up slightly to compensate. As there are no parallax marks in the viewfinder, it will have to be a bit of trial and error for these shots. The broad base of the viewfinder is strong and also serves to protect the locking knob but this does get in the way of the film rewind crank and make it fiddly to rewind the film. Fortunately the viewfinder is very easy to remove and refit.

Since the price of the WL15 and NVF15 are such good value at £499, it would have been nice to see a more dedicated viewfinder with 100% coverage and parallax correction, even if it added £50 to the overall price. This wouldn't diminish its value for money and would make a much better combination.

Performance

When put to the test in a swimming pool, the 15mm lens performed very well indeed. The degree of geometric correction was very high and it reproduced the rigid pattern of square tiles without any significant barrel or pincushion distortion. This is one of the big advantages of having de-

signed a lens from scratch and dedicated it for underwater use. Whilst a swimming pool is the ideal environment to test the general and geometric performance of a lens it is not the best of tests for flare but, with the modern glass optics and the shallow profile front dome port and lenshood design, there should be no significant flare with the WL15 in open water with potentially extreme highlights from surface lighting.

The obvious question which now must be answered is "Is it better than the 15mm Nikonos lens?" and the answer is that optically it performs to the same high level. Mechanically, the 15mm Nikonos lens wins with its depth of field indicators and sprungloading design but the positioning of the aperture and focus controls together with their large size make them very vulnerable. The Sea and Sea WL15 on the other hand is much more compact and the controls are better positioned and more protected. If the two lenses were identical in price then the Nikonos 15mm would have the edge but since the performances are so similar and the price differential is so wide (the WL15 is 62% cheaper!), the Sea and Sea WL15 should prove to be a best seller despite being let down a bit by the viewfinder.

It seems that, in the past, we had to pay for such dedication of design and construction but, with the advent of the Sea and Sea WL15, we now have a lens that equals the performance of the Nikonos 15mm at a fraction of the price.

Peter Rowlands

A Testing Time on Mana Island

Paddy Ryan explains



(Above) Companionable companion and dive buddy, Phil Jones takes a closer look at Mana's marine life. Due to misbehaving equipment, this was the only "useable" photo from the whole 12 days diving. Nikonos V, SB-102, F8 and Subawider.

You've all met the type. The sort of fellow who makes jokes at the Christmas social. Our one, with the enormous originality of the small-brained, called himself Nostradamus. Damn Nostradamus, he did more than make the Christmas social amusing, he put a lasting curse on my underwater photographic activities.

There I was on a magnificent tropical island (Mana Island, Fiji), equipped with 50 rolls of Kodachrome 64, six battery chargers, a small Zodiac boat with 6 hp outboard, unlimited air courtesy of Mana Divers and a place to stay courtesy of a friend. To make sure that my stay was pleasant I took along some companionable companions (some of whom doubled as dive buddies) and 13 cases of Stubbies.

The trip started in fine style, I got sick the first night and steadily worse during the next day. My erstwhile dive buddies, Derek Eamus and Phil Jones, took advantage of my absence to patch up the Zodiac and get in two pleasant dives. The following morning I was sufficiently recovered to attempt a dive but found while putting together my Ikelite housing that a vital piece of equipment,

the camera mounting tray, was back in Suva, (Fiji's capital, a boat ride and a 120 mile drive away.) I put the Nikonos V and SB-102 flash together and headed out with this. The day was idyllic, not a breath of wind and super visibility. Half way out to the reef, Derek (who likes playing boy racers) hit a small coral head. It was a mild thump but sufficient to break the pin. Needless to say there was no spare and even if there had been, we had no way to remove the split pin as we had no tools. Lesson one learned.

The trudge back to shore towing the Zodiac was pleasant, but didn't make up for the missing dive. Did this daunt our gallant hero? Not a bit of it. He hopped onto the boat, back to the mainland and into the trusty Suzuki for a quick ride back to Suva. The missing part was right where he remembered it. At 5.40 the next morning the unmasked marauder was on the road back to Nadi where, after a frustrating 20 minute wait at the local dealers, he picked up several spare pins for the outboard. At 11.30 am he was back in the Villa supping on a well earned stubby.

After this interlude I was sure that all would go well. My optimism was totally misplaced. Our night dive was a disaster. My companionable companions did not relish the thought of sitting in a bucking Zodiac for 45 minutes while the three divers investigated the photographic potential of the area. The end result was a split dive with each of us taking a spell in the Zodiac. Phil and I piled into the water, Derek having drawn the short straw. To ensure that we could detect any drift I used a rubber band to attach a Cyalume light stick to some coral, a procedure I can highly recommend. Not only did it reassure the boatman that the anchor was holding, but it also gave us the homing light at the end of the dive.

As you might have guessed this dive too was a disaster. In the dark we missed the drop-off and after 15 minutes energetic finning into the teeth of a howling current still didn't find it. The photographic opportunities were minimal, a rather disgruntled porcupine fish which was too damn lethargic to even erect his spines, but nothing else. When we got back to the boat Derek was looking extremely green around the gills. In the interests of scientific accuracy I must report that we didn't actually see any colour in the dark, it was surmised from the retching sounds. At this point I aborted the dive and we headed back for a well deserved stubby.

The dive the following morning was superb. The outboard ran like it knew it was flat calm and sunny, the Zodiac didn't leak as much as usual and our hero had his sights set on two rolls of film. Two rolls of film? Such confidence. First into the water and straight to the bottom, adrenalin surging as he investigated the housing for signs of leaks. Panic, bubbles everywhere. Relief as he realises it is the reflection of his exhaust port. Focuses on a handy coral head. Gently squeezes the tit. The shutter works. The autowinder audibly hums as it advances to the next frame. The flash doesn't fire. Six shots later the Ikelite and homemade flash housing are swapped for the more reliable Nikonos V, SB-102, Subawider combination.

The first priority is to get some photos that can be used for postcards, an obligation to a major sponsor, the one responsible for



(Left) This magnificent goby *Nemateleotris magnifica* posed with fins erect for the camera. Taken with a Pentax LX fitted with 100 mm macro lens at F8, AF-400T flash

the fifty rolls of Kodachrome 64. Visibility is not good (less than 100 feet) so our hero opts for close-ups. Hirsute Phil, considered slightly more photogenic than hirsute Derek is called in to act as model. Whiskers almost in the feather-star he intermittently holds his breath as our ace underwater photographer rattles off almost a dozen shots. Our hero works on the assumption that if you take enough, some of them will come out. One shot in the can, the trio move off along the reef, huddled into a coral head is a very photogenic yellow puffer. Focus, frame and fire. No flash! It talks to itself, the aiming light works but it refuses to fire. Discreet hammering against coral blocks and threatening it with instant death by drowning do not work. Flash remains obdurate. Dive finishes and we return for a well earned stubby.

On shore said Nikonos SB-102 is dissected and given a precautionary squirt of CRC, there is no evidence of flooding, just a few beads of water that probably entered when it was opened. Flash sulks, refuses to work and is dishonourably discharged (literally!). Thrown back on the Ikelite and homemade combination our hero works diligently. At last success beckons as the powerful Pentax flash fires every time. A well deserved stubby is consumed.

The following morning dawned bright and clear, at last so we are told. Our hero and dive buddy are still asleep, emerging bleary eyed at around 9 am for a ten o' clock dive. The camera gear, set up from the night before is tested one last time and works perfectly, TTL flash and all. Once in the water our hero heads to the bottom focuses on a handy coral head and gently squeezes the tit. The shutter works. The autowinder hums as it advances to the next frame. The flash does not fire. Philosophical, as always, our hero surfaces and places the housing back in the Zodiac, dive proves extremely interesting.

Once back on the surface things become exciting. The tide has gone out, exposing some rather nasty coral blocks. Discretion seems the better part of valour. Rather than motor over the small breakers we opt to walk the Zodiac over the danger area. Our hero, the only one with shoes, takes the anchor line while buddy and boat handler remain in boat. The exercise seems simple, 30 cm of water and 45 cm of waves, keeping the bow of the boat into the waves is not difficult. Not difficult that is until a totally unexpected 1 metre



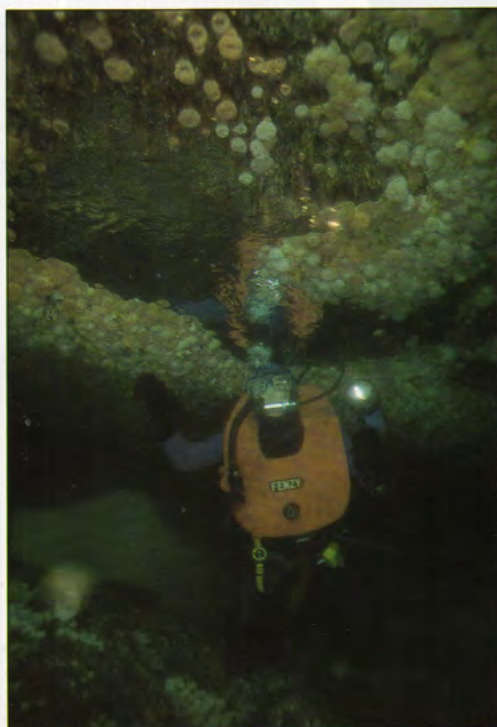
(Below) What do you do when all else fails? This aquarium shot of a Squat Lobster on a crinoid was taken with a Pentax LX fitted with extension tubes and 100 mm macro

Paddy Ryan

with Andrew Mounter



(Above) *Dead Man's Fingers* play host to several small *Brittle Stars*, possibly *Ophiothrix fragilis* making a reasonable fore-ground subject. The typical open water green-blue colour helps in giving a sense of depth to the image. Technically and subjectively an interesting image.



(Left) *Combine the mercuric appearance of air trapped in the upper arch of the rock, and the golden cast produced by the tungsten torch light, the result is worth the struggle keeping in mid-water. Ektachrome 100, Olympus OM2 and 21mm lens in a home made housing.*

The sea was calm, the sky only half covered by light clouds and the tide well out as my dive partner, Kevin McDermott and I sought out the only one remaining parking space in St. Abbs harbour. It was to be my third visit to one of the best dive sites of mainland Britain and I had looked forward to it for some time. On the way up, we had discussed ideas for the photographs I was to take and we eagerly set about preparing ourselves for the dive. My first thoughts were, of course to be certain that the camera was going to work properly. I always check that the flashes fire before entering the water and this was where we had our first setback; they didn't! After a frantic few minutes trying various camera modes, I managed to find one where the flash did fire, and soon we were making our way around the harbour to the entry point.

The tide had dropped still further by now and it looked a bit of a scramble down the rocks to the water's edge. Once over the kelp and into open water it was an easy snorkel over to Cathedral Rock, which was just exposed above the water. Dropping down into 15 metres, we hit the bottom a little way off and made our way over rather ordinary terrain until we came up to the magnificent double arch that makes the rock famous. Coupled with the masses of Plumose Anemones and Dead Man's Fingers, the sight is awe inspiring to say the least! But we had work to do, and after a brief rest taking in the splendour of our surroundings, we moved over to where I had previously found an anemone in just the right place to make a dramatic photo. Hardly surprising, really, it was busy digesting a meal and had reduced itself to a totally unphotogenic lump! Notwithstanding, I took some shots, though not as close up as I had intended!

By now, about 7 or 8 large Ballan Wrasse had made themselves present and we began feeding them, as good a substitute for the anemone as I could wish for. Now I was finding it difficult to get a low enough position so that I could get the background surface light in shot, which would have separated the subjects from their surroundings and made a much better picture. What did help was my drysuit because in dumping all the air from it I could sit firmly in one place on the sea bed even with a gentle current flowing past.

Leaving the fish to finish off their



(Above) *Simplicity is often very effective as this shot of sea urchins illustrates. A natural congregation or deliberately set-up, either way it is a fairly successful shot, for which two strobes were used.*



(Above) *Many large Wrasse were sighted during the dive which later had disappeared - only to reappear in a diver's goody-bag!*

meal, I wrote out my directions to Kevin on a formica slate I carry with me, something I would say is absolutely essential to any serious underwater photographer; the only way to make complex instructions on site.

We took position in the upper arch of the rock where, over the months, diver's air had accumulated and formed an air pocket. The anemones still manage to poke their tentacles through it into the water and I wanted to catch the reflection of light around them. The powerful torch that I had lent Kevin made this possible, but I was pleasantly surprised on viewing the slides later to find I had caught the reflection of the anemones below as well as above which gave a sparkling golden tint to them. It was quite a struggle keeping position in midwater to

take these shots, and I gratefully sank down to the sea-bed to rest when I'd used up all the film.

We still had about ten minutes left of the dive (to enjoy, rather than work), before we returned to shore. There we planned the second dive of the day whilst waiting for our cylinders to be filled and extending our surface interval. I wanted to repeat the shots I'd already taken "just in case" and it's to Kevin's credit that he readily agreed. In fact I can only claim for half of the success of the day since we both dived specifically to take the photographs and had little time for much else. Some of the repeat shots on the second dive turned out to be the better ones, thus showing one can never take enough of one subject. Bracketing also played an essential role, and although some frames were badly under or overexposed, I had a large proportion of acceptable shots.

Unfortunately, I must end on a sour note. On the first dive, we caught sight of a pair of divers, one with a speargun, the other with a goody-bag stretched to capacity! On the second dive, there were only two of those friendly Ballan Wrasse left. I am annoyed with myself for not being able to do anything about it there and then, and also for not taking their pictures for later identification. If anyone else knows of this and who may know the persons concerned, please try to persuade them to leave the site alone. Here is definitely a case of a couple of divers spoiling it for literally hundreds of others.

Andrew Mounter

RAS MOHAMED

- The Red Sea -

* THE U/W PHOTOGRAPHER'S PARADISE *

The most outstanding Red Sea dive location. Accommodation tours ranging to Hilton (5 stars), boat diving Ras Mohamed - Tiran - Straits. Plus Ras Mohamed Safaris with *UNLIMITED* dives, the ideal U/W photographers working environment.

- * Your choice of dates, daily departures
- * All inclusive tours from £590

FOR DETAILS CONTACT

UP in Antibes with Peter Rowlands

The 15th International Festival of Underwater Photography took place in Antibes, France from October 12th to 16th and once again proved to be a major and successful attraction to divers from all over Europe. It's continued success ensures that this festival must be regarded as the largest of its kind in the world and is one which looks set to continue both in terms of attendance and standard.

Although it is still very much a French-influenced event, Antibes attracts entries from all over the world and is gaining a reputation as the event at which careers can be launched and promoted as well as providing a pleasant meeting place for like-minded people.

In the competition side of the festival there are categories for black and white and colour prints, colour slides (portfolio of 10), audio visuals, professional and amateur video, TV productions and Super 8 and 16mm films. In addition, there are categories for music/soundtracks and a newly introduced one for books. The latter was restricted to French books but next year should see this excellent category being expanded to cover all European languages.

From a British point of view, we did rather well with Benny Sutton taking the Gold for his black and white print shown here, Kevin Cullimore just being pipped (by 1 point!) into the Silver for his Colour print shown here (the winner was a computer generated/enhanced image from Japanese photographer Hokazono Tsutomo which would cause a few tongues to wag over here but was not available for printing) and Michael Wong winning a Bronze for his slide portfolio. In fact in the slide portfolio, which must be considered a severe and sensible test, we had 3 out of the first 6 for just behind Mike was Benny Sutton and in 6th place was Linda Pitkin. Bearing in mind that very few British photographers entered, this was a good result.

Andy Belcher from New Zealand won the Gold in the slides category and his shot of a diadema urchin (which did well at Brighton '87) was highlighted as the single most impressive slide in the competition.

President of the Jury for still images (this includes audio visuals as well) was Gillian Lythgoe, Director of UK's Planet Earth Pictures and she told Underwater Photography "I thought the overall standard was good this year with a reassuring variety of images. It is always a daunting task to try and judge such entries but we gave each



(Above) Kevin Cullimore's Silver medal winner in the colour print category was a double exposure of fish and coral with a black background but, since the prints are not available for printing, a triple exposure version is printed here with a third exposure adding a blue background.

(Below) Daniel Mercier finds time to pose for the cameras. It is his continued enthusiasm which gives this major international event its stability.

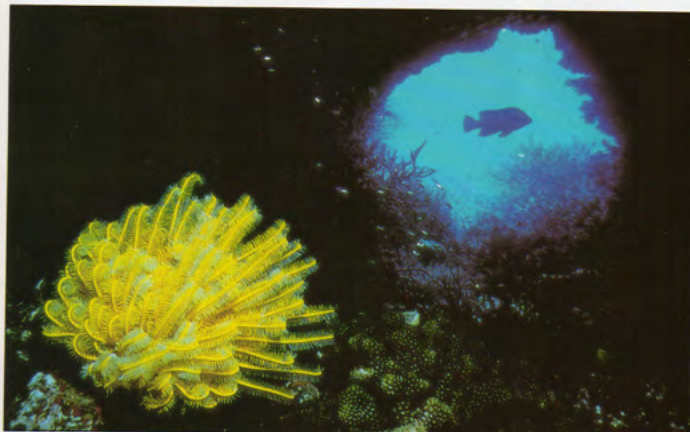


(Below) The main reception area on a quiet day. At its peak, this area was awash with visitors from all nationalities drawn to underwater photography.

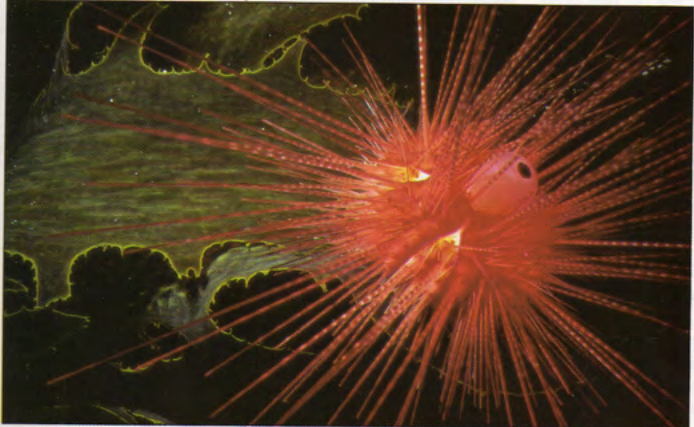


(Above) Manatees shot by R. Braunschweig whose entry was 12th overall.

(Below) Michael Wong came 3rd in the slide portfolio. 10 shots per portfolio had to be entered.



(Below) Andy Belcher's entry came 1st and this shot (which did well at Brighton 87) was voted as the competition's finest individual slide



(Above) A double exposure from Vic Verlinden's portfolio

COVER PHOTO

This issue's excellent cover was shot by Ernst Voellm from Switzerland. His entry came 7th overall. This was shot on a 6x4.5cm format camera in an aluminium housing. This reproduction is cropped from the centre of the frame which is one of the advantages of the larger format.

print points out of ten and then added up the total. The slides were points out of five. With the AV's we gave points for the idea, the music/commentary mix, picture and sound quality and finally, the effectiveness of the fades. The standard of the AV's varied considerably but the winner received a unanimous vote."

"Some photographers wonder about the sense in not having separate categories which results in fish competing with divers etc but, from a judging point of view, it all comes down to the image and although a fancy computer generated image won the colour prints, it is usually those shots, like Kevin Cullimore's Silver winner, having the strong simplicity which appeals to a judge's eye."

In the audio visuals, Michael Wong was the only British flag flyer out of 22 entries but this category went to Giovanni Eavali from Italy for his "Dream Concert", a three projector show with well shot sympathetic images and effective fades on the well worn theme of a dreaming mind wandering underwater and back.

To see the mountain of equipment needed to cater for all the entrants' technical needs was a telling sight to behold and



(Above) Benny Sutton won 1st prize in the Black and white print section with this menacing shot of a Wolf Fish.

(Top right) D. Torckler's fine shot looks equally impressive in black and white or colour.

(Right) Children's art adorned every available space.



their views to help improve the event which were noted by the organisers and should be implemented in the years to come.

The 5 day event is a true festival with most of the services being provided by volunteers with finances stretched considerably. It is a tribute to the organisers, Mr and Mrs Mercier and their small team of part-time helpers, that they continue to generate the enthusiasm which results in this high point in the underwater photography calendar.

Peter Rowlands

Handy hints

Are you "SAFE"?

It had been an uneventful flight home. My three passengers were staring out of the windows, bored. The engine purred at idle speed as I made my turn for the final approach to the airstrip when suddenly the droning noise from the engine compartment stopped and the throttle went dead in my hand. I knew instantly what had happened; My God, I had forgotten to switch tanks! I've let a fuel tank run dry! The propeller kept spinning impotently, driven by the wind rushing past it. I eased the nose down to maintain airspeed and, trying to appear calm, reached down for the fuel tank selector lever and flipped it over. Eyes front again, my heart slamming against my ribs as I watched the trees rise up towards us, the runway impossibly distant, the prop windmilling uselessly. Come on! COME ON! My knuckles were turning white on the controls when suddenly the gentle roar started up again. A wave of relief spread over me as the throttle came back to life, responding smoothly as I eased it forward. I glanced over my shoulder. My passengers were still staring out of the windows; they had no idea what had just happened! But I certainly did, and after we landed I spent a good long time sitting in the parked aircraft, amazed that I could have made the inexcusable mistake of neglecting the pre-landing checklist with near-disastrous results.

I relate this little confession from my days as a commercial bush pilot because of the double lesson that was driven home to me that day:

(a) Always use a checklist, and (b) physically check each item on it. This lesson isn't just for pilots. It can benefit anyone who deals with complex equipment or situations and underwater photographers stand to gain a great deal by paying heed to it.

As a diver, I've probably come back with as many overexposed, underexposed, half-frame, out-of-focus and just plain blank rolls of film as the next fool, but once I began to apply the great lesson of the checklist I experienced a real drop in the kind of bone-headed mistakes that can turn a photo dive into a photo fiasco.

Now, when I say "checklist" don't worry. I don't mean a cumbersome slate dangling from your wrist and wrapping itself around your contents gauge. What I'm talking about is a quick and easy mental memory-jogger that you can run through briefly just before entering the water.

Any such list has to be simple be-

cause if it isn't, chances are you won't use it or you'll forget part of it and leave out the one item that Sod's law says you shouldn't have forgotten. The one I've adopted is both simple and comprehensive, covering as it does the four areas of operator blunder that are most apt to lead to a completely ruined roll of film if left unchecked. Like most good mental checklists it is an acronym and consists in this case of the letters that make up the word, "safe". Here's how it works:

S

"Shutter Speed" Is it set at the flash synch speed? Had you intended to set a slower speed to lighten up the backgrounds? Did you blow it and leave it on the "rewind" setting? Older Nikonos cameras left on "R" will appear to function normally (even firing the flash) but alas, the film won't be moving through the camera. I know. I've done it.

A

"Aperture" Is it set for the expected flash strength and subject distance? Will you be able to snap a grab shot of that whale shark that appears out of nowhere as soon as you hit the water? Will you fry a whole roll of macro shots with the aperture set at F3.5 instead of F22?

F

"Focus" Take a look at the lens. All extension tubes and most accessory lenses require specific distance settings in order to perform properly, thus providing a wonderful opportunity to lose a whole roll of close-ups due to an incorrect focus setting. If using a wide-angle optic, have you set the near and far depth of field limits to cover the subject distances you anticipate?

E

"Electrical" Flash turned on? Auto/manual/TTL switch in the correct position? Appropriate manual power setting selected? Synch cord screwed in at both ends? (Don't laugh. I could let a tale unfold). Light meter switched on and set to the correct ISO rating for the film being used?

Adapt each letter group to suit your own equipment then go over this brief list just before the camera gets wet. If you do it back in the room or before kitting up on the boat it's possible that something will get switched off or moved out of adjustment before you enter the water. Be sure to physically check each item, taking nothing for granted. After all, taking things for granted is what creates the need for checklists in the first place.

As you stand there awaiting your turn to go over the side or as you wade out from the shore, pause and ask yourself, "Am I "SAFE"?" and tick off the items on this little checklist. It only takes seconds and if you're at all like I am then you'll be surprised at how often you catch that one little mistake that would have become a dive-wrecking monster if you hadn't been clever enough to spot it.

by Steven Reilly

Lost Leaders?

How often do you rewind your film cassette too far and lose the leader resulting in either a darkroom job or a rummage around in a changing bag. Most photographers must have done so at some time possibly in preparation for double exposing the film. There is a simple but ingenious tool called a "Leader Retriever" consisting of two very thin plates of metal which may be safely inserted through the light trap. Manipulation of this tool permits the leader to be caught between these plates and withdrawn easily. These Leader Retrievers may be purchased at most photography shops.

Got any handy hints?

You could win a roll of slide film.

Let us know those little tricks of the trade and we'll publish them.

A roll of slide film for every hint published.

Underwater Photography Workshops

Salcombe, Devon with Sophie Antipas

Bill and Mary Bunting have been running Kingsbridge Watersports in Devon for six years. Bill started taking underwater photographs several years ago and recognising the growth of the sport and the fact that it is not always compatible with traditional diving activities Bill and Mary ran two Underwater Photography workshops over the summer offering 4 and 5 days of diving respectively from MV Likely Lad.

I attended the five day workshop presented by Les Kemp. Les has been taking underwater photographs for some ten years and has earned admiration for his award winning audio-visual shows. The workshop began on Sunday evening giving everyone the opportunity to meet one another and for Les to check that we had all arrived with basic equipment and E6 compatible slide film.

There were eight people on the course but only seven photographers. A Swiss couple, Bruno and Ursula from Zurich dived as a team where Ursula acted as an occasional model or just enjoyed the diving. The experience of the party varied from beginners to proficient photographers. Mark and Bruno had many years of underwater photography experience behind them but were attracted, as were we all, by the opportunity to spend a week taking photos and studying the results day by day. I was among the least experienced, having spent a week earlier in the summer in Majorca getting acquainted with the equipment, and a further weekend in Plymouth vomiting over the side of a rolling boat! The others in the party had anything up to a few years experience of underwater photography and were aiming to sharpen their technique.

We spent all day on the "Likely Lad" and made two dives per trip although there was no restriction as to how many dives you could have, dependent naturally on the air available to each diver. The "Likely Lad" can take 10 divers at a time but for underwater photography bookings Bill restricts the numbers to eight to allow for the extra equipment. The weather was on the whole fantastic - blue sky and sunshine, the wave-capped Atlantic swell was persistent but in sheltered coves the water was tranquil, emerald and inviting. Pairings were decided on the first day but as the week progressed and the weather proved fine these were not strictly adhered to and it was left to each individual to decide how s/he wanted to dive.

During our stay the visibility ranged between two and ten metres allowing for both macro and wide-angle work. On clear days there were plenty of opportunities for capturing the sun-burst effect a factor of particular use to Mark who concentrated on the double exposure technique throughout the week, with enviable results.

Bill Bunting has a very thorough and accurate knowledge of this part of the south coast and we were fortunate in being able to dive on several different sites during the week. The Herzegon Cecille lying in nine metres of water at slack tide was a regular stop. Her bulkheads were encrusted in jewel anemones and Sagartia elegans, a tompot blenny was discovered challenging allcomers from his niche, battling with gloved fingers and posing on his ledge. Visiting the wreck more than once one could plan potential shots in advance and so use equipment to better effect.

The East Ruts - a pinnacle rising from the seabed its apex lying some 17m from the surface at slack water - provided weed covered walls below a kelp forest. Inquisitive cuckoo wrasse and large ballan wrasse were notable subjects, but a group of striking finger sponges and gorgonians were too deep to be photographed by the time I saw them.



(Above) Mark Webster's shot, winning the "competition" was this candid study of a very territorial Tompot Blenny. Complete with comical face and enough bravado to gaze into a close-up lens they can make excellent subjects for the camera. Taken with a Nikon F3 fitted with a 55mm Macro lens in an Ikelite housing.

In Eleanor Cove very close to the rocky shore the seabed consisted of uneven ridges with fairly dense kelp on top. Macro life included the leopard spotted blenny and the fan worm *Bispira volutacornis*. The only animal of note which I spotted was a pipe fish (*Entelurus aequoreus*) which reared inquisitively out of the kelp and miraculously swam in between the probes of my close-up lens, it stayed for a few seconds before gliding back into the weed where it became indistinguishable from the kelp stalks.

Off Bigbury Bay we dived in a moderate swell onto a fairly clear rock bed with both shallow and deep gullies. Even at 20m the effect of the swell was considerable and it was difficult to keep station. Together with poor visibility the conditions were uninspiring. However it was a useful opportunity to experiment with different flash angles to find the best position for the subject whilst minimizing the impact of the sediment in the water.

In the evenings Les processed our films. Up to 16 films could be processed at once. Once the film had dried the results were examined on a light table and the best results from each person's films were projected for further comment and appreciation. On the penultimate evening a lighthearted competition was held to vote for

the best slides of the week and the winning slide can be seen printed here.

Les was always available to give advice and suggestions - even below the water on occasion! Some had hoped that lectures would be given on photographic technique. However, with two dives per day followed by processing in the evenings and examination of the results, there would have been little time for theory unless dive time had been cut which would have been very frustrating. In addition the wide ranging experience of the people on the course would have made structured lectures difficult. But as a work-shop the main emphasis was on diving and taking photographs, thereby learning from experience.

It was a very enjoyable week and for a potentially solitary sport it proved a very sociable experience. For those daunted by diving alone it is comforting to see or at least know that other divers are nearby. The main advantage and attraction of such a workshop is the opportunity to concentrate on underwater photography over several days seeing the results as you go whilst having an experienced photographer at hand with whom to discuss technique.

Kingsbridge Watersports lies on a hill in the heart of Kingsbridge town. The accommodation is behind and above the shop and is warm and comfortable. The compressor room and an area for washing salty equipment are at the back of the building. These facilities and the living area are connected to the high street by a passageway so that gear can be swiftly loaded into waiting cars (speed was essential as the traffic wardens were insatiable following a new one-way system and parking restrictions).

Mary and Bill were very hospitable and welcoming throughout our stay and are planning two more underwater photographic weeks next summer in June and September, as well as a further workshop. The five day workshop that I was on, cost 159.00 pounds inclusive of breakfast and one fill of air/per day.

For further information the address for Kingsbridge Watersports is: 39 Fore Street, Kingsbridge, Devon. Tel: 0548 2934.

Sophie Antipas

Twickers World

for

The Big Red Sea

From Eilat to Sharm el Sheik.
Dive or Learn to Dive.
A comprehensive range of tours
at the best prices.

Capture the excitement with SEA & SEA Unbeatable underwater camera systems

Capturing those memorable moments underwater really is as easy as pressing a button - and much more affordable than you might think - thanks to the U.K.'s favourite range of world famous underwater camera equipment!

A) VIEWFINDER

B) MOTOR MARINE 35SE
The world's first quality underwater camera 35mm Autowind camera, with motor driven film advance and rewind, built-in light meter and flash and 2.8 standard lens.

C) W124 LENS CONVERSION
24mm f5.6 wide angle lens, with 86° underwater coverage.

D) Y500MS STROBE
Features slimline body, complete with telescopic arm and bracket and slave facility. 5-second recycle time 90° coverage.

E) SW16 LENS CONVERSION
16mm super wide angle lens with 93° underwater coverage.

F) POCKET MARINE 110SE
Full range of lenses, strobes and accessories available.

Sea & Sea - the world's largest underwater camera specialist.

AVAILABLE AT ALL LEADING DIVE STORES Dealer Enquiries Invited

SEA & SEA LTD.

SEA & SEA LIMITED 5 Alexandra Lane



Amphibico's Sony Video V90 Housing

Having been a very keen audio visual producer for a long time, I had been keeping one eye on the video world as it developed from an expensive gimmick into a cost effective medium for producing underwater films. I held back when the first Sony Handycam M8 with it's Marine Pack arrived because, as an underwater stills photographer, I saw the need for wide angle optics being just as essential for video.

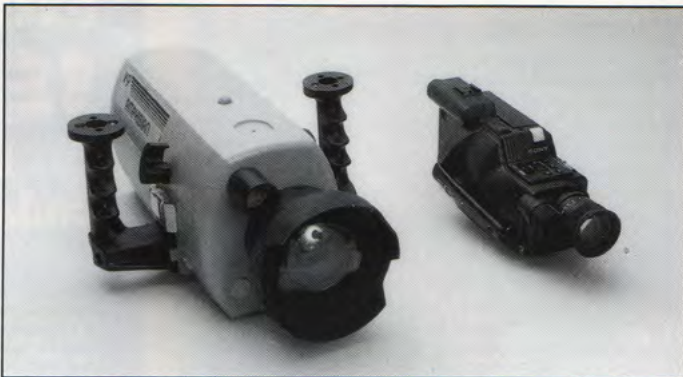
When the reflex Sony V30 arrived, I plunged headlong into the world of video and had a perspex housing made by Peter Scoones which incorporated wide angle optics. The results were way above my expectations and helped me shoot some excellent footage of HMS Royal Oak in 1987. In depths up to 100 feet with very low light levels, the Sony V30 performed fantastically but gradually I began to feel a few limitations with the camera; the first being the lack of a frame counter, the second being the lack of macro capability and the third being the worry of a potentially fragile perspex housing.

The solution to all of these problems arrived with the Sony V90 and Amphibico's aluminium housing. I'd seen the Hypertech tubular housing and was impressed with the simplicity and the price but felt happier with the extruded aluminium of the Amphibico, even though there was a substantial price difference. My experience with still camera housings has always led me to believe that, if you are keen, buy the most robust gear you can and it will be a good investment in terms of performance and eventually value for money.

The V90 camcorder has been described in the May/June 1988 issue so needs no further introduction but the Amphibico housing is a new product from a new manufacturer and needs some research.

The Amphibico V9 housing is made in Canada from extruded aluminium with welded endcaps. It is the smallest housing available for this camera and being aluminium is quite heavy (5 1/2 kg or 12 lbs) but this combination of weight and size does result in neutral buoyancy. Buoyancy is much more important with video housings as it affects the handling properties considerably.

Two standard overcentre catches hold the two halves of the housing together and provide good compression on the main O ring. There are external controls for zoom and on/off/record with these two controls being well positioned ergonomically. There



(Above) The Sony V90 is one of the market leaders in the highly competitive camcorder world. It's 8mm format, high performance image sensing chip and high specification together with it's small size have proved popular. The Amphibico housing from Canada is a complement to the features of the camera and the combination of the two must be considered to be the best available today.



(Left) All of the camera controls are operated via the remote socket on the camera. This makes setting the camera up very simple. The viewfinder eyepiece must be removed prior to assembly of the housing
The standard battery and the double capacity NP77 can be used.

are handles at either side of the housing onto which light-mounting arms can be attached. Amphibico are not into producing lights and supply mounting shoes compatible with both Sea and Sea and Oceanic shoe fittings.

The wide angle optics are achieved by mounting a X.42 adaptor behind a dome port. This gives a coverage of at least 100° with the camera lens set to 12 focal length. This coverage is great for British waters and, although I have yet to try it overseas, should produce superb clarity in clear water.

With the rear half of the housing removed, there is very little preparation needed to install the camera but it is best to make a check list to make sure you don't forget. The focus must be set at 4.5 feet and the autofocus must be disengaged to give fixed focus. (It is possible to fit a +1 dioptre lens to the camera and the auto focus will work underwater but I prefer to fix the focus and know it will be sharp). The wide angle optics make most subjects sharp from a few inches in front of the dome to infinity. There is an external microphone which is con-

nected to the camera's socket just prior to loading the camera. The camera must be set to "Camera" and there is a lead from the housing to the remote socket on the camera.

All of the on/off/record functions are controlled via this remote socket which is linked to the control on the right hand side of the housing. Pulling the control back turns the camera on and holding the lever back starts recording. This stops as soon as the control is released. If you want to continue filming without having to hold onto the control, push it forward and the recording will be continuous until it is pushed forward again. All of these operations are very simple and take very little time to get used to.

For those who just wish to shoot wide angle, I suggest you don't fit the small O ring supplied which disengages the zoom to macro button on the camera. If fitted, it will allow you to zoom into the macro setting by mistake and the shot will go totally out of focus! For macro shots, it is best to consider the flat macro port.

(Right) The viewfinder position is fixed on the V90 and, when housed, is easy and bright to view. There are times, however, when it would be ideal to be able to alter the viewfinder angle but the camera dictates that this is not possible.

The zoom control is on the left and the On/Off/Record on the right.

The viewfinder is at the rear of the camera and the built-in magnifier gives a bright and large image. The positioning is a bit awkward at times for I found that, with wide angles, I liked to look over the top of the housing at the general scene and would have liked a different viewfinder position which allowed me to do this and check the viewfinder at the same time. This is a limitation of the camera and not the housing and is something I got used to as the dives progressed.

As an external signal to both the cameraman and the model, there's a red light on the top of the housing which flashes when the camera is recording. This is a very useful facility which I don't think is included on any other housing.

In use, I found the viewfinder too small to see if all was in focus, especially in low lighting and I had a few anxious dives



wondering if the results would be sharp. They were sharp but I did have to have some tweaking done to the optics by the UK importers since the positioning of the wide angle adaptors in relation to the camera is very critical. I suspect that there may be slight variations from housing to housing and I would recommend that you buy a housing that has had the optics checked. The macro port was not available to test but is just a flat port for use with the macro facility on the camera. A small O ring

is fitted to the zoom control to allow access to the macro facility and you can then focus right down to the front port by operating the zoom. The zoom control has five small steps before giving a smooth slowed down zoom. This is designed to let you have more control in the macro mode where a small turn of the zoom will take the focus from about 4 feet down to a couple of inches. These five small steps give you much more control in this area.

Filters are available to reduce the usual underwater colour casts but I was perfectly happy with the UK shots without a filter and especially impressed with the camera's ability to balance the available light with the tungsten video lights I used for lighting the foreground.

At £949 in the UK, the Amphibico housing is much more expensive than the competition but it does provide a very high quality of finish with controls not currently available on the others so there are good reasons for the price differential and you do definitely get more for your money.

The housings are imported into the UK by Ocean Optics Ltd, 4 Greyhound Road, London W6 8NX. Tel 01 381 6108.

Steve Birchall

Back issues?



All of the previous 6 issues of UP are still available to complete your set and provide an invaluable source of information in the future. Individual copies cost just £1.95 (+ 30p p&p) and are available from Underwater Photography

Printed
T-SHIRTS
SWEAT SHIRTS
RUGBY SHIRTS

UNDERWATER ARCHAEOLOGIST L16

underwater
-DEEP- L17

archaeologist L13

TIGER C3

J.F.D.I. L21

Taurus introduce there latest range of over 20 Humorous and Full Colour Fine art designs. Screenprinted onto the finest quality wash fast garments.

Telephone or Post Coupon for full details and prices. (Free divers sticker included).

Name

Address

TAURUS PROMOTIONS LTD.

Favourite shots

Martin Edge balances light

The sun, bursting through the surface, pierces a royal blue sea. A diver hangs in the blue void above and a spray of vivid colour dominates the foreground.

One can be forgiven for thinking that this type of image is old hat. But even with the advent of the popular double image, it has stood the test of time. Admired by divers and non-divers alike, they adorn the walls of thousands of homes, offices and dive shops all over the world. I'm sure we've all gazed at such an image at some time during our life and wondered, where was it taken and with what equipment?

This photograph remains a firm favourite of my own work for a number of reasons. I enjoy, most of all, to work with a model in capturing this type of shot. The result was what I had envisaged in my minds eye in terms of artificial lighting balanced with the existing natural light. It's a shot where I often find myself explaining to a novice the lens required and the limitations of the Nikonos 35mm lens. This usually results in a deep conversation relating to underwater photography and we both depart happy.

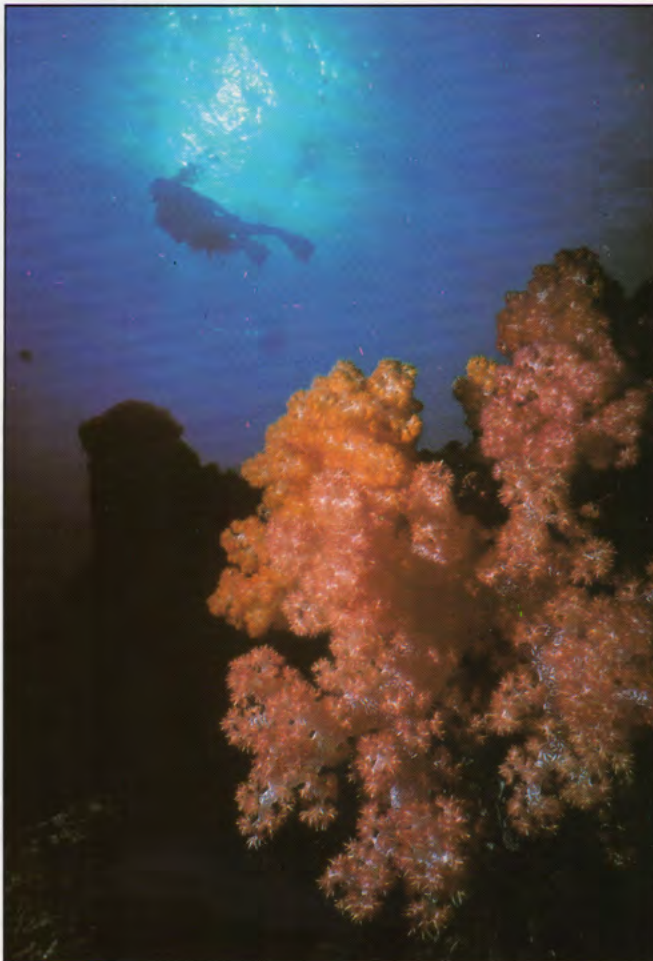
This shot was taken during a trip to the Maldives in 1986. I used a Nikonos 111, 15mm wide angle lens, Oceanic OS 2003 flash on low power and Ektachrome 64 film. The aperture was either F11 or F16 at 1/60th of a second. The flash to subject distance was bracketed between 1 and 2 feet.

We were diving a reef during the late afternoon. The depth was 14 metres sloping down gradually to 30 metres. The visibility was around 25 metres and there was a slight current running along the reef in a westerly direction towards the face of the setting sun. My buddy, Bob Wrobel, was also looking for pictures but I knew he would be available to act as a model, should the need arise.

There was a profusion of fish on the reef. By dropping behind whilst Bob swam ahead and hugging the reef, I was able to capture the shoals framed against the blue water and as Bob descended it became easier to separate his shape instead of framing him against the cluttered background of the reef.

Underwater photographers are forever being reminded that the best time of day is between 12 midday and 2pm when the sun is at its highest. But for me the best photos/dives are when the sun sinks to the horizon. The combination of surface conditions and sunlight can produce spectacular effects.

We swam over an area rich with soft
Underwater Photography Page 24



corals growing vertically from the reef. Settling down and examining one such specimen, I could see that the sun was backlighting it.

It's pertinent to mention that during 1986 I was influenced by the double image technique produced by several BSoUP members. Isolating the main subject on a dark background is so effective in providing impact to an image. I was experimenting at the time with composing a foreground subject against a reef or coral outcrop which I would purposely underexpose either by aperture control or flash to subject distance.

So with this thought uppermost in my mind, I scoured the reef for the correct sized specimen of soft coral situated with a certain sized coral head behind it.

I found what I was looking for quite quickly. The background element was in the form of a large stump of brain coral and the sun was bursting through the surface behind that. I took a light reading towards the surface which indicated an aperture of F16. I knew this would underexpose any detail on the reef by as much as three stops.

I indicated to Bob and invited him to view the scene from my position to give him an idea of what I had in mind. I took out my

regulator and blew out profusely. He then knew that I wanted bubbles - and lots of them. The overall scene looked good. If I could get Bob into the correct position it would be even better.

The biggest problem was to be composition. My Nikonos was placed on the sand pointing towards subject, diver, surface and sunburst at an angle of 45°. I couldn't get myself into the space to see what was actually in the viewfinder so I had two choices. Either I could move on to another location or I could shoot 'from the hip'. I decided to shoot from the hip and fixed my eye as close to the camera lens as I could. The camera to subject distance was about 9" to 12" and I chose to side light the coral and accentuate the soft coral at the back.

My model swam back and forth through the sunburst and against the current at least a dozen times which was hard work for him but an advantage to me in being able to get plenty of bubbles, a sense of movement and time for my flash and my thoughts to recycle.

I shot off about twelve frames before I sighted two white tip sharks cruising the reef slope so I decided to give them my undivided attention for the next fifteen minutes.

I felt the dive and my endeavours had gone well. I was eager to process film on my return home and on removing it from the developing tank my initial reaction was optimistic. I had about twelve shots with a correctly exposed blue water background and sunburst which is the benefit of using an accurate and correctly calibrated Sekonic exposure meter. The soft coral was well lit in almost every frame which is the advantage of being totally familiar with the power and limitations of my flash. However, the stump of brain coral behind had not entirely surrounded the foreground subject. The composition between the diver and the subject was good but the position and shape of his silhouette gave the appearance in several frames of having either one leg or one fin.

Three frames worked well. The position of the diver and his bubbles in the picture evoke a greater feeling of movement and are slightly better than the other two.

If I had to do the shot again I would spend longer searching for the subject which not only was correct in terms of size, colour and position but was in such a location that I could actually compose through the viewfinder and adjust parallax in my own way.

These types of images can be taken just as efficiently in UK waters but do spend time in choosing the foreground subject instead of using the first one you see.

A necessity is a wide angle lens or supplementary lens. The standard 35mm or 28mm Nikonos lens will not produce the desired effect.

Martin Edge

**HAVE YOU GOT A
FAVOURITE SHOT WITH A
STORY?
LET'S HAVE A LOOK AT THE
SLIDE BEFORE WRITING THE
WORDS AND YOU COULD
SOON BE IN PRINT!**

**Underwater
Kinetics**

**the brightest
name in day and
night dive lights**



SUPER Q-LITES

◀ **QXL2.** Our smallest, least expensive day dive light. Burn time 4 to 7 hours. 1.2 watts with 2 Alkaline cells.

QXL3. U.K.'s largest selling Alkaline powered dive light, ideal for looking under ledges, etc. Burn time 3.5 hours. 2.8 watts with 3 Alkaline cells.

▶ **QXL3R.** U.K.'s largest selling rechargeable compact light, for day or night. Burn time 1.5 hours, 5.9 watts. Nicad 3 x 2 amp/hr cells.

QXL4. Bright for day or night. Burn time 1.8 hours. 3.7 watts. 4 Alkaline cells.

▶ **QXL4R.** Most powerful rechargeable Q-series light (night or day). Burn time 1.5 hours. 7.8 watts. Nicad 4 x 2 amp/hr cells.

NIGHT DIVING LIGHTS
▶ **UK1200.** Most powerful UK night diving light. Burn time 2 hours, 16.5 watts, with Nicad. Burn time 6-8 hours, 7.4 watts with Alkaline cells.

▶ **UK600.** UK's largest selling lantern style dive light. Burn time 2 hours, 8.7 watts with Nicad. Burn time 3-5 hours, 3.7 watts with Alkaline cells.

GUARANTEED: 1 year light, 90 day battery and 30 day lamp

AVAILABLE AT ALL LEADING DIVE STORES
Dealer Enquiries Invited

SEA & SEA LTD. SEA & SEA LIMITED

DISTRIBUTORS
OF WATERPOOLS
EQUIPMENT

Telex: 946240. Ref. 19002785.



The Art of the Slide Show

by Dr Mia Buehr

Sooner or later it's going to happen to you. If you are an underwater photographer then someone, somewhere is going to ask you to give a slide show. Maybe it will be an informal show at the local club, or perhaps a presentation at the British Society of Underwater Photographers. Or you could be called upon to give a formal talk for a university or community group. But whatever kind of presentation you give, if you want your pictures to make a good impression, there are some basic rules of slide showing that you should follow. Unfortunately, some photographers think that giving a show just involves putting a lot of pictures in a carousel and talking about each one as it comes up. That's one way of doing it, of course, but a really effective presentation requires a bit more in the way of planning. Let's look at some of those basic rules.

Rule 1. You need a theme. A unifying thread should run through the show. It could be Marine Life of Britain, or My Summer Holiday, or Looking for the wreck of the Hesperus, but your presentation must be about something if it's not to be pointless and uninteresting.

Rule 2. You need the pictures. It's no good giving a talk about a wreck dive if your camera flooded before you actually found the wreck. What you can say will depend on what you can show: if you haven't got the shots don't talk about it.

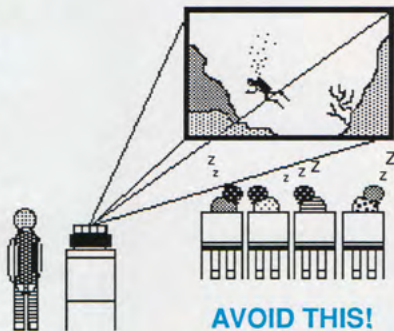
Rule 3. Your photos must be good. Not every slide you show has to be a prize-winner, but it must be in focus and well-exposed. You're not going to make a very good impression if you keep showing blurred images. Even if the subject is fantastically exciting, technically bad pictures belong in the wastebin, not in the projector.

Rule 4. Every slide should say something new. Too often a photographer who's managed to take several good shots of a subject will show every one of them on the grounds that they're all good. Unfortunately, as far as the audience is concerned, the first may be good, but the second, third and fourth are just boring. Once you've decided on the best pictures to use, it's time to think about what you're going to say.

Rule 5. Know your audience. What you say will largely depend on who you're saying it to. An audience of photographers

will want to know all about apertures and flash angles, while a dive club will be more interested in where you went, what you saw and how deep it was. And a school or civic group will need a very basic, non-technical approach.

Rule 6. Be careful about humour. A genuinely funny commentary will add tremendously to your presentation, but be careful about the kind of humour that you use. Again, you must know your audience. An underwater shot of your buddy pretending to drink out of an old beer can might be screamingly funny at the dive club, but would only be embarrassing at the local Women's Institute. Once you've got a rough idea of what you want to say, sit down with your slides and a lightbox and work out a logical sequence of pictures that co-ordinate with what you're going to say.



Rule 7. Watch your timing. When you first project a slide, your audience's attention will be riveted upon it. But the longer it stays on the screen the more their attention will stray, and if you leave it up too long you'll lose them altogether. On the other hand you must give them enough time to study a picture thoroughly before moving on to the next. There is no hard-and-fast rule about how long to leave a picture up: anything between five and forty-five seconds could be right, depending on the shot and what you have to say about it. But the time to work this out is in the planning stage, by arranging to give each picture the right amount of comment. If you find yourself taking too long over one picture, spread the commentary over two or three slides. Or try Rule 8.

Rule 8. Use blank slides where necessary. If you have to talk about something that isn't illustrated by a picture, don't leave your audience staring at a photograph that has nothing to do with what you're saying. Put a blanked-out slide in the projector and the audience will switch their attention to you until you put up the next picture. At this stage, the planning of your show is really over. You've decided what to say, and how to use the photos to illustrate your points. There are just three more things to remember.

Rule 9. Let your pictures illustrate your words. The inexperienced presenter usually lets himself be prompted by a picture, and then goes on to the next one. He'll say things like "Oh yes, this is a picture of the cliff, it was really steep here and we all went down it and there were lots of anemones, but I've got a shot of them later." The good presenter, on the other hand, will say "Close to the shore the rocks are shallow, (shot of shallow rocks) and the rocks are thick with plumose anemones (shot of anemones)." In other words, don't describe your pictures, but rather let your pictures illustrate your words.

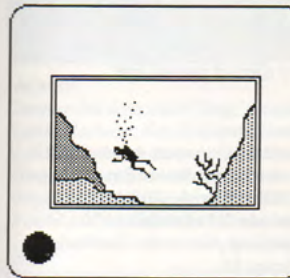
Rule 10. Leave them wanting more. In the world of slide shows, long is not always better. A short, punchy presentation is far preferable to one that drags on and on. You need talent and experience to hold an audience for much longer than about 30 minutes, so if you're a beginner keep your show short and snappy.

Rule 11. Spot and number your slides. (*see footnote to article). If you think that a dropped carousel couldn't happen to you, fate will dictate that you'll find out how wrong you were just before that really important presentation. A few minutes spent marking your slides will let you recover quickly from disaster.

Rule 12. Give yourself a run-through. You're courting catastrophe if you expect to give your show without a couple of practice sessions beforehand. That's the only way to weed out the upside-down and out-of-sequence slides, to co-ordinate your comments with the pictures, and to time the whole thing. And if you can give the talk to another person so much the better. All this

may seem like a lot of work, and much more trouble than the show-'em-and-describe-'em approach. But a good presentation is the best way there is of making sure that your photographs are seen as they should be - by an alert, interested audience. And after all the effort you put into taking them, it's the least you can do!

*To spot your slides, hold them so that they're right side up and right way around. Now stick or mark a conspicuous spot in the lower left-hand corner of the slide mount. When you put the slide in the projector magazine or carousel, turn it so that the spot is on



the upper right-hand corner, and put it in the magazine with the spot facing you as you look along the magazine from the back. The slide will now project the right way round. When all the slides are loaded correctly you should be able to see all the spots lined up as you look down the magazine.

Dr. Mia Buehr

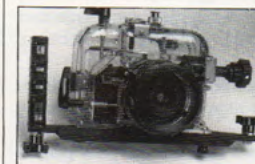
GREENAWAY MARINE LTD – Specialist Suppliers of underwater photographic and video equipment

MARINE VIDEO SYSTEMS – Example

JVC ZENITH (VHS-C)
No. 6017 GR-C7U or VM-6200 £695.00
Clear moulded housing. All controls provided, plus record/standby, backlight, fader, stop/rewind/review. * VIDEO-EYE recommended. Camera not included.

RCA (VHS-C)
No. 6021 CPR-100 £695.00
Cylindrical housing with clear end ports. All controls provided. * VIDEO-EYE recommended. Camera not included.

SONY (8mm)
SONY MBU Handicam
No. 6030 Flat port £299.95
No. 6030.3 Dome port 5 WA lens. £495.00
Clear moulded housing with controls for Distance, Filter, Setting and Start/Stop
Lower priced No. 6030 features a flat front while the No. 6030.3 includes a dome port and Wide Angle Lens. Camera not included.



as shown £349.00

CAMERA HOUSINGS – Auto Focus + TTL

- * THRU-THE-LENS VIEWING
Accurate focusing and perfect framing without parallax problems.
- * SUPER-EYE VIEWING
Offers thru-the-lens full frame viewing underwater. Super Eye is included with all cases except those for large finder cameras.
- * TTL AUTO EXPOSURE
Combine a TTL housing, highlighted in BLUE, with an Ikelite TTL Substrobe for thru-the-lens auto flash exposure. TTL cord required.
- * INTERCHANGEABLE LENSES
Most SLR lenses, from fisheye and macro to telephoto, can be used above and below water.
- * INTERCHANGEABLE PORTS
Ports are available for most lenses. Standard port accepts lenses up to 2.5" long.

UNDERWATER STROBES:-

SUBSTROBE M, MS, MV
For the ultimate compact and lightweight strobe, select one of the SUBSTROBE M SERIES strobes. Manual, Slave and TTL models are suitable for most photographic needs.
* Excellent for macro, close-up and general photography.
* Covers lenses as wide as 28mm.
* Weighs a mere 1.3lbs (with batteries).
* Measures only 4.5" in length.
SUBSTROBE M SERIES operates from 4 'AA' batteries (not included), alkaline or rechargeable. Alkalines provide fast 5 second recycle times and over 250 flashes. Industrial grade Ni-Cads are available from Ikelite, NI-CADS & CHARGER (No. 4041).



Our new catalogue contains details of the complete Ikelite and Nikonos underwater system. Strobes, torches, Dive log watch, Video housings, cases, Boxes, etc. The complete system for underwater photographers. Clip coupon for details. Tel: Swindon (01793) 736661/7

NIKONOS CAMERAS AND ACCESSORIES



Complete SUBSTROBE PACKAGES are available for Nikonos cameras (pages 22-23) or SLR cameras (pages 13-14). Or choose one of the Strobe Packages for any camera system (page 20). Simply add the proper cord. From as little as £199.00 complete.

Please supply 1987/8 catalogue.
NAME
ADDRESS
ACCESS N° OR
Enclosed £1. Overseas Airmail £3.00

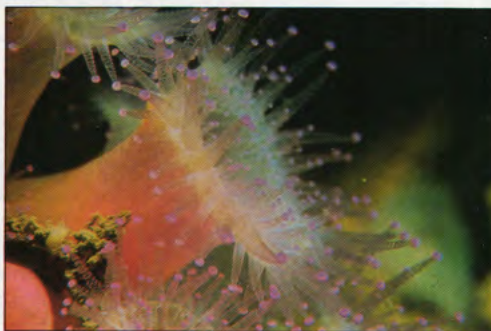
Turbid Water Photography

by Quentin M. Bennett



(Left) Diver Jon Bennett on the wreck of the "South Sea" in 20 metres of water, Wellington Harbour, New Zealand. Nikonos III with 15mm lens and single handheld wide-angle strobe in visibility of 2 metres. Ektachrome 64. This demonstrates both the effect of shielding the strobe and careful framing to give the illusionary effect of natural light.

(Below) Jewel Anemone, *Corynactis haddoni*, in 17 metres at North Reef, Hawke Bay, New Zealand. Nikon F2 with 105mm Micro/Nikkor and tube 1:1 in visibility of 1 metre. Handlamp plus strobe illumination on Fujichrome 50.



Many photographers give up when water visibility is a couple of metres or less. On the other hand some of us rarely dive in better conditions so to be able to pursue our interest in underwater photography we have to be able to get results in this turbid water. Three basic requirements for underwater photography are: Get very close to the subject, control lighting very carefully, and focus accurately.

In turbid water these requirements become critical to obtaining results. Remember that even the best conditions underwater for a land photographer would be like working in a pea-soup fog.

The less water between the subject and the camera lens, the better. If the water is coloured or full of suspended matter, getting close to the subject is the main factor in greatly reducing this colour or fog and getting a sharp successful photograph.

A close focusing wide angle lens is ideal for turbid water photography, but it is expensive. The wide angle extender is another useful lens in these conditions, is far cheaper to purchase, but cannot offer quite the same quality.

Even if your equipment does not include either of these, using close-up lenses or tubes will allow you to get near to small subjects and to continue to photograph even when visibility is reduced. Your subjects, of course, will depend on the photographic equipment you have available.

In turbid waters a self contained camera such as the Nikonos is generally superior to a reflex camera for several reasons. The low visibility will mean that a reflex viewfinder will be both very dark and of very low contrast. It will be very difficult both to define and to focus. With some of the better quality optical viewfinders for the Nikonos, such as that with the 15mm U/W Nikkor, the photographer can possibly see subjects in the viewfinder that he/she otherwise couldn't see. The small manageable lack of bulk of a Nikonos is likely to be a great advantage in the type of conditions often present when visibility is poor.

On the other hand, in some conditions the use of a full frame fish eye lens can successfully utilise a reflex camera. The depth of field of such a lens can almost render focus adjustment unnecessary and its 180 degree diagonal field of view makes it an amazing tool. However the subject distortion calls for care by the photographer in

order to prevent extremely weird effects.

Do remember that diving in turbid water requires far greater underwater skills than diving in clear water. Involving oneself in such a technically challenging task as photography in these difficult conditions therefore demands adept "seat of the trouser" diving ability. The additional complication of photography is a test that, frankly shouldn't be contemplated unless the diver is totally in control and at ease with the conditions.

Two metres or less of visibility carried on down to only ten metres or so depth translates to being very dark, and a considerable test of diving ability. The task should be treated with the necessary care and caution. In these conditions the photographer must be able to maintain buoyancy control and sense of direction, because, of course, he is not just taking photographs, but also carrying out a dive. Careful buoyancy control, in addition to safe diving practise, becomes vital if the bottom is soft or muddy in order to prevent disturbance and the consequent fog. The diver must be totally familiar with all his equipment operations and camera controls and be able to operate them in low light levels. I wear a small light on my hood, miners' fashion, that can be used for both gauges and camera controls.

Equipment may need to be modified so that it can be operated whilst wearing gloves. Before entering the water all



(Above) Commercial diver John "Legs" Diamond cuts a wharf pile in Napier Harbour, New Zealand. Diamond was the cutter in the H.M.S. Edinburgh salvage in the Barent Sea. Nikonos III with 15mm lens and single handheld wide-angle strobe on a very long arm. Visibility approximately 0.75 metres. Fujicolor 100 printed and then copied with reversal film Fujichrome 50.

camera controls are adjusted to the most likely settings. These may have to be readjusted, but it does mean a start and often doesn't require much altering. When possible, rather than bracketing exposures, move the strobe closer and further from the subject to give different exposure values. In a working situation working quickly is often important, and this is much faster than altering controls. Purposely move the strobe to give different lighting angles; normally working with the camera in the right hand and the strobe arm, which is one-piece, straight, and quite long, in the left hand. The use of a movie light instead of a strobe is another lighting technique that gives the photographer greater control. He can easily ascertain the effects of flare and differing lighting positions.

In water with visibility that is poor because of suspended particulate matter, it is so important to minimise lighting anything but the subject. Lighting the water between the camera lens and the subject will only create a fog and "snow". The wideangle strobe that is really necessary for use with a very wideangle lens almost becomes a liability in these conditions and needs to be used with great care and thought. In some situations such as in a shipwreck or in some harbour tasks, a beam or superstructure can be used to shield the strobe light such as in the illustrating photograph. The important thing is to endeavour to light only the subject and not the water between it and your camera. Again if you are successfully managing to get really close to the subject the water between the camera and subject may be irrelevant.

Under the low light conditions prevalent with poor visibility, it is so important that instrument and camera controls are easy and clear to understand and operate. Detailed ergonomic design of diving equipment is at its infancy and the practical underwater photographer is at an advantage if he can design and alter his equipment to make it easier and quicker to operate.

In the very worst conditions where a static object has to be photographed, a tent of heavy clear plastic film can be constructed over the subject. Clear water can be pumped down into this tent. In a harbour fresh water from a hose will often do the job. I have worked in water where the surface visibility was very good, but the bottom visibility non-existent. Using a fire-fighting pump and hose to simply pump clear water down to the bottom without using a tent worked most successfully in creating photographable conditions.

For entering and exiting the water, it is wise that the strobe attaches to the camera so that they can be handled as one manage-

able piece. This is a protection in the rough and difficult entries often associated with poor visibility.

Sharp focus is always important, but in poor visibility contrast is less and the focus essential. If you are using a wideangle lens and strobe and are close to the subject, and therefore at a small aperture, focus might not be quite so critical because of depth of field. Artificial lighting is virtually essential in conditions with very poor visibility and therefore fast film is not necessary. The conditions of especially low visibility are the only time that I sometimes stray from the use of Kodachrome colour reversal film. In these conditions I have found that the latitude of colour negative film and the ability to make adjustments during printing can save the day. If transparencies are required, the print can be duplicated with transparency film, understanding the consequent minor loss of quality copying always brings.

With visibility of a couple of metres or less, however, any photographs are a miracle and quality becomes something beyond miracles. Photographs that are taken very close up, as turbid water shots must be, can have quite a punch to them. Peasoup photographs can be very dramatic and excitingly different. The diving involved in taking them can also be very exciting.

Photography in conditions of very poor visibility can only be indulged in by particularly skilled photographers; who are also very capable divers. Turbid water photography becomes almost an artform of its own. I believe strongly that many of the pictures in "UP" that were taken in British waters are taken by far more skilled photographers than many of the glamorous tropical shots we drool over in adverts and the like.

Quentin M. Bennett

**RED SEA
RUDI KNEIP'S
RED SEA DIVING CENTRE**

Hurghada, mainland Egypt.

Diving 365 days/year

(includes Christmas Day...)

Land based.....boat diving

5 boats, inc. Lady Somaya 1

and now.....

LADY SOMAYA TOO 2.....

new 18 berth purpose-built

launch.

**The best Red Sea boat for the
best Red Sea diving.....**

For details & brochure, phone Chris or Anita

WIDEN YOUR HORIZONS

WITH A SEA AND SEA
LENS AND VIEWFINDER.



SEA&SEA
UNDERWATER CAMERA EQUIPMENT

The Sea and Sea range of lenses for the Nikonos and Motormarine 35 cameras offers excellent quality at affordable prices. They are now even better value. During July and August, with every supplementary lens like the SWL24 and SWL16, you'll be offered a half price optical viewfinder (that's £25.22 off). With every 20mm lens, you'll get a FREE optical viewfinder (that's £50.44 off). There's never been a better time to widen your horizons.

The full range of Sea and Sea Products can be seen at

Ocean Optics Ltd

**That's all
from UP folks!**