

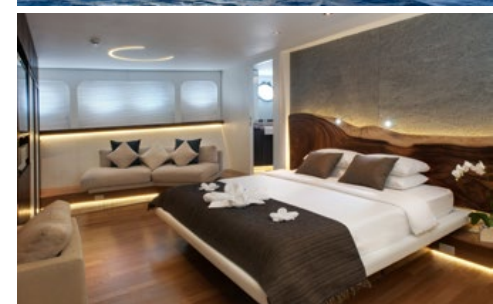




"After years of travelling to the best dive sites in the world and often experiencing poor conditions, we found Wakatobi Dive Resort. They have a perfect balance of luxury with outstanding diving." ~ Kate Pagdget-Koh

An experience without equal

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



www.wakatobi.com

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Underwater Photography 2001 - 2019
© PR Productions
Publisher/Editor Peter Rowlands
www.pr-productions.co.uk
peter@uwpmag.com

2018

This time of year is punctuated with retrospectives and why should underwater photography be any different?!

From an equipment point of view there can be no doubt about two things; firstly Nikon and Canon's entry into the full frame mirrorless market and secondly Nauticam's expanding range of dedicated underwater lenses.

The former provides a fascinating insight into the workings of the photographic industry and the latter confirms to me how lucky we are to have such a comparatively small company (compared to the likes of Nikon and Canon) who have dedicated their output to optimise the images from our world. Their range of dedicated underwater lenses has way surpassed the achievements of Nikon in the Nikonos and Nikonos RS eras so their vision, endeavours and achievements deserve highlighting.

Parting Shot

For the first time in a while no Parting Shots have been sent in so.....

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

and yours could be in UwP107

Editorial

Plastic response

Dear Peter

I read your words in your recent issue of the UwP magazine about plastic pollution, and it is a subject close to my heart, in that on all my recent (over last three or four years) dive trips to Asia, including Tanzania, Philippines, Indonesia (Bali) I have witnessed the most dreadful pollution of the once beautiful and pristine seas by plastic of all kinds, both floating on the surface and on the sea bed. Likewise the use of dynamite for fishing along all the coasts where there are human populations is more and more evident with a dearth of fish life where once the reefs were teeming with life.

What the solution is or can be is difficult to say, as there are no waste collection procedures in the small towns along Asia's coasts, and the growing population has to feed itself, with no work available in so many places.

Having dived in Asia since the mid 1960's and being involved in UW photography for most of my diving life, I find this really dreadful and a problem that the world needs to address, not just export its waste (like the UK does!!!) to other countries who pick out the usable products and dump the rest into rivers and this eventually ends up in the sea.

Best regards

Leo Collier

Bob Halstead 1944 - 2018

I was very saddened to hear of the passing of Bob Halstead just before Christmas.

For a while the lights in our world will burn a little dimmer without his presence but he transformed our world in so many ways. He has been quite rightly described as all of these: an innovator, a pioneer, an educator, an explorer; but I think above all he was a true luminary and his many achievements leave our world in a much better and therefore brighter place.

I had the great pleasure of diving with Bob on MV Golden Dawn in Papua New Guinea. He was relief skipper on back to back charters filming with Peter Scoones for the original Blue Planet series. His reputation (he invented Muck Diving, for heaven's sake) preceeded him but I found him to be so level in his dealings and I rejoiced in his oh so logical free thinking; especially when it came to things like solo diving and I always warm to a person who doesn't log their dives. In his own inimitable words "If I do not log my sex life, why should I log my dive life?"

Which leads me to what I think is his most succinct summation of our world and it works on so many levels: "If you can't take a joke, don't take up underwater photography".

Goodbye, Bob. Thanks for the ride and I just wish I could have had the opportunity to thank you and say "Cheerio".

Peter Rowlands
peter@uwpmag.com

News, Travel & Events

Tiger Beach Shark Trip Bahamas 2019



Underwater at Tiger Beach, Bahamas several large tiger sharks cruise in a pattern while lemon sharks mingle with graceful Caribbean reef shark. Diving without a cage among these large sharks allows you to get up close and personal for a thrilling adventure full of action. Seeing this many species of sharks is an opportunity to appreciate and value their role in our oceans.

October 12 – 18 2019 is our 7 day Tiger Sharks at Tiger Beach Charter. Hammerheads are not in season so the action is all Tigers and other sharks. Multiple tiger sharks move into the area since this is the start of their mating season.

Photographers will enjoy the clear water and bright sand bottom and taking images of sharks over the green sea grass or reefs. The tigers and other

sharks come close to divers creating opportunities for beautifully detailed video or stills.

Divers must be experienced: these are long and multiple dives with no cages and filled with the consuming action of sharks swirling around you.

We depart/return to West Palm, Beach Florida making for easy flight connections to any southeast Florida airport.

Our boat is the MV Dolphin Dream, a 86' expedition charter yacht with 5 shared cabins and diving platform. It holds 10 guests plus crew and is very stable and comfortable to ride through the Caribbean waters.

Underwater photographer host Gregory Sweeney is your host and is available to offer photography help and tips during the trip and while preparing for travel.

A few spaces remain on these popular trips

www.TigerSharkDive.com



NAD-Lembah Resort is a small, owner-operated, photography-oriented dive resort in the Lembah Strait.

Situated in a private bay on Lembah Island, you can enjoy being away from the hustle and bustle of the mainland.

Guaranteed 2:1 guest to guide ratio as standard, which makes for a private dive experience and lots of time to take pictures.

NAD is often the choice of film crews and production companies. We also offer Blackwater Night and Mandarin Fish Dives if you would like to try something different!



NAD
lembah

North Sulawesi, Indonesia

General enquiries: +62 812 475 6661
info@nad-lembeh.com
www.nad-lembeh.com

Blackwater Safari style gathering January 27th -Feb. 4th 2019



Crystal Blue Resort in Anilao, Philippines is dedicated to underwater photography and photographers. Our state of the art camera room, nitrox, chef prepared meals and professionally trained guides create a support team that will allow you, to be you.

Join Mike Bartick and Alex Tyrrell for this Blackwater Safari style gathering. 8 Nights full accommodations / 7 nights of Blackwater diving / 14 total BW dives plus 6 afternoon dives included. Nitrox/3 meals a day/Airport transfers 1802.00 pp dbl. occ/ 2162.00 solo. This is a full inclusion price with no hidden costs.

Blackwater diving is the ultimate for natural photo ops, underwater.

Imagine drifting in the open ocean at night to witness the vertical plankton migration in Anilao.

Paper Nautilus, Settling Wunderpuss, Blanket Octopus, Diamond Squids and more will be our target subjects in this special all night diving get together.

The day begins in the afternoon with photo reviews and a Bonfire sunset dive. Followed by 2 blackwater dives in deeper waters to explore the bay and surrounding areas.

This group setting is not a formal workshop but a sharing experience. 12 Guests maximum for this group experience

Please contact : Mike Bartick
mike@DiveCBR.com
Saltwaterphoto@live.com



2019 Asia Divers Underwater Photography Workshop with Phil Rudin & Beth Watson June 16-23, 2019

Take your underwater photography to the next level! Join professional photographers Phil Rudin and Beth Watson at Asia Divers for a week of fun, learning, laughter and friendship!

Phil Rudin

Based in Florida, Phil Rudin began taking underwater photographs while in the U.S. Navy. Phil is now a Freelance Writer, Photo Instructor and Travel Photographer.

As seven time President of the South Florida Underwater Photography Society Phil has served on the Board of Directors for over twenty years and enjoys the diverse makeup of the clubs members. Phil's images have appeared in a verity of magazines including Popular Science, Sport Diver, World's Best Diving, Reflections, Scuba Diving, Underwater Journal, Skin Diver, Florida Underwater, South Florida Adventures, MexicanDiver.com and Underwater Photography Magazine (UWPMAG.com). Phil is Senior Reviewer for Underwater Photography



Magazine having contributed over seventy articles on new equipment photo, photography techniques and dive travel.

Phil has conducted underwater photography workshops for Reef Photo & Video, Underwater Digital Fiesta, Hasselblad Xcursion, SFUPS, Dive Into Photography and more. Phil is a Platinum Pro 5000 Diver who also lectures on travel destinations and photography around the world.

www.facebook.com/philtrudin

Beth Watson

Photography and scuba diving are Beth's passions. Absolutely loving the ocean and everything it has to offer, she focuses on capturing images that are unique, creative and thought-provoking. Through her imagery she hopes by illustrating the beauty and wonders of the sea, it will bring awareness to conserving and preserving the health and vitality of our ocean environment. Fascinated by it all, she enjoys the challenges of



photographing wide angle reefs and wrecks but also has the deepest adoration for the smallest critters in the sea. Always striving for perfection, she is continually learning, experimenting and trying different lighting techniques, attempting to capture that next thought-provoking image.

Beth is an international multi-award-winning photographer and a judge for international photography competitions. Her images have been published in books, magazines, calendars, brochures, newsletters, postcards, on websites and have been selected for juried art exhibitions.

www.bethwatsonimages.com
www.facebook.com/bethbwatson
www.instagram.com/bethwatsonimages

www.instagram.com/philtrudinphotography

www.asiadivers.com/2019-underwater-photography-workshop/

Lembeh Photo Workshop with Doug Sloss,
Mike Veitch and Luca Vaime
July 27 - August 3 2019 at Nad Lembeh Resort



Following the success of the last three years, Doug Sloss, Mike Veitch and Luca Vaime are teaming up once again to announce another awesome workshop at the best photo resort in Lembeh Strait, NAD Lembeh

The package includes seven days of incredible diving, 2:1 guest to guide ratio, one-on-one underwater instruction to help improve your shooting techniques and informative lectures throughout the day to hone

your photo skills and post processing prowess.

A limited number of participants gives you plenty of personalized attention above and underwater, as our instructors do not take their cameras underwater.

www.underwatertribe.com

UW Photography Tune-Ups in the Philippines



Award-winning photographer Henley Spiers is now offering tune-ups for underwater shooters visiting the Philippines.

Designed to help you make the most of your trip to the heart of the Coral Triangle, the tune-ups are an easy way to get back in the underwater photography groove, or learn new techniques - both in-water and in post processing.

The relaxed and friendly tune-ups are entirely customised to each individual's needs. Whether you're just getting to grips with the basics, or aiming to create competition winning shots - Henley's teaching

will be tailored to your requirements. The tune-ups take place in his home base of Mactan, Cebu, which is just minutes from the airport, and the international access point for diving hotspots such as Malapascua, Moalboal and Dauin, and only a short flight from Manila.

The tune-ups are offered year-round, and can be run over one day or more, making them easy to tag on to the start of your trip to the Philippines.

To find out more, please visit:

www.henleyspiers.com



Gregory Sweeney Photography Adventures

Tiger Shark Live Aboard Dive Trip



www.TigerSharkDive.com 12 -18 October 2019
Tiger Beach, Bahamas

Underwater Photo Fun Week in Bali, Indonesia with Doug Sloss, Mike Veitch and Luca Vaime 20-26 July 2019

We are happy to announce our macro and wide angle Bali Underwater Photo Fun Week as an addition to our annual Lembeh Photo Workshop. The dates will be 20-26 July 2019.

This adventure is the perfect warm up for our Lembeh Strait workshop the following week, combining two of the best spots in Indonesia in one extraordinary trip. However, this event can also act as a stand alone Photo Fun Week in and of itself so everyone is welcome!



www.underwatertribe.com

Swim with Killer Whales/Orcas in Norway

Swim with the world's most intelligent predator in the Arctic Circle!

Join us in January on a tour to the coastal fjords of Norway to view the spectacular herring migration which attracts large pods of whales. The trips are arranged to allow both boat based viewing and a strictly supervised swimming encounter. This area has also provided our most stunning Aurora Borealis (Northern Lights) experience to date.

Along with the orca, there are chances to see majestic humpbacks, sei and fin whales, along with sea eagles, otters, seals and a variety of seabirds. This is all set against wonderful mountainous landscape and magical sunrise/sunset light.

Our base has very little light pollution and there are excellent opportunities for stunning northern lights pictures. If you're a bit unsure of how to take great photos, we'll be on hand to run a workshop.

Our in-water encounters are all snorkelling/swim encounters with the orca, no scuba diving. This means anyone with a basic level of fitness can take part as long as you are comfortable with 100m open water



swimming and can get on/ off the boat. The weather can be challenging so the right equipment is a must, along with the right attitude.

We have a maximum of 8 guests per boat. This is a premium wildlife experience and in a challenging environment so we tailor the trips as such. Places are extremely limited so booking well in advance is recommended. We are based on a beautiful island in cosy and comfortable lodge style accommodation; the trip is fully catered (vegetarian included). Rooms are on a single occupancy basis with a reduction for couples or if there are same sex passengers willing to share (dependant on other booking guests).

Winter - January 2019 - We are returning to our same base that we have operated since 2014. Tour is now full but there are spaces in November 2019 & January 2020

<https://baskingsharkscotland.co.uk/our-tours/overseas-tours/swim-with-killer-whales-orcas-in-norway>

Two Trips Back to Back! Halmahera to Raja Ampat

Nov 25th to Dec 5th, 2020 & Dec 7th to 17th, 2020



Join Optical Ocean Sales for one or two 10 day all-inclusive Photo Expeditions on the luxurious Damai II liveaboard from Halmahera to Sorong and from Sorong around Raja Ampat back to Sarong the second trip!

These cruises feature a wide range of areas with unique diving opportunities to shoot everything from mantas to nudibranchs, soft coral mangroves to hard coral reefs! Do one or the other – or both!

Halmahera to Raja Ampat (Nov 25th- Dec 5th, 2020):

Departing from the Sultanate of Ternate, the Damai II liveaboard will make the first stop at the volcanic island of Tidore to enjoy schooling fish and some cool macro. From here you will island hop through the picturesque northern Maluku islands; from Makian into the archipelago

of Goraici with its seamounts with possible manta sightings and great reefs and beautiful coral gardens to Bacan with its world class muck diving in the morning along the black sand slopes in front of the boat-building beach and its schooling barracuda off the wall in the afternoon.

Cross the Seram Sea to the remote island of Pulau Pisang with its spectacular topography of pinnacles and plateaus teaming with schooling fish.

Continue onto Misool in the south of Raja Ampat to experience the unique Blue Water Mangroves where the reef meets the mangrove roots. An excellent opportunity for wide angle photography.

We shall spend our final cruise days enjoying the variety of dive sites around Misool in southern Raja Ampat, which provide a superb mix

of wide angle and macro subjects, along with plenty of excellent “muck” diving and the opportunity to visit local villages. Our liveaboard cruise ends in Sorong.

Raja Ampat (Dec. 7-17th, 2020):

Departing from Sorong, Papua, the Damai II liveaboard will make the first stop at the eastern end of the Dampier Straits for a check-out dive. We will spend the following day here diving iconic sites like Cape Kri, Blue Magic and Mioskon enjoying the schooling fish, cruising sharks and maybe rays and pygmy seahorses.

We will head west to Gam where there are beautiful orange soft corals at Citrus Ridge and fish action at Mayhem before heading to Wofoh for an afternoon wall dive and night dive.

The following morning we hope to experience some Manta action at

Kawe followed by a macro afternoon in Aljui Bay. That night we will move south to Penemu for some world class coral reefs and the photo opportunity of the lagoon from the viewpoint.

Moving south to the unique destination of the Blue Water Mangroves for some wonderful wide angle opportunities and then east to the colorful soft coral-covered reefs around the island of Misool where we can enjoy the pinnacles at Wayilbatan and Fiabacet or a nice drift along the channel at Neptune Fan Sea.

Moving north we will explore the caves at Farondi with another opportunity for a lagoon tour on the tenders and then our last morning’s diving we will enjoy a critter hunt on the black sand slopes at Batanta.

Our Raja Ampat liveaboard cruise will end in Sorong.

www.opticaloceansales.com

Reef Photo & Video's Lembeh Photo & Video Retreat October 4-14, 2019



We are very excited to offer this 10 night trip to Indonesia to participate in a one of our photography workshops.

Price includes transfer from Manado to the resort, nitrox, and 26 daytime boat dives. This resort offers a 2:1 diver to guide ratio + Reef Photo staff will be there too for photo support and expert guidance. Don't miss your chance to come along, so reserve your spot by putting down \$1000 deposit today.

Dive packages include full board (3 meals per day), hot drinks and water, evening dinner on the day of arrival, and breakfast on the

day of departure. The dives stated in the package are day boat dives only. Dives are non-transferrable and unused dives non-refundable. Package and room rates are based on double occupancy.

The resort does offer specialty dives for those that are interested: night dives, mandarin fish dives, and black-water dives for an additional fee. Minimum of 2 divers to book.

Best flights to choose are Silk Air from Singapore to Manado; and lots of airlines fly from the USA to Singapore.

NAD-Lembeh Resort and the Lembeh Strait are famous all over the world for the peerless macro

and muck diving. NAD-Lembeh is expert in Nitrox, Rebreathers, and Photography.

The Lembeh Strait region offers more than just face to face encounters with weird and wonderful muck critters. We also have wall diving, technical diving, big fish dives but most importantly – a lot of muck and sand.

NAD is also owner-operated, almost all year Simon and Zee are present on site. If they aren't at the resort, they are off on a photographic adventure or diving. They have 15 full-time guides who between them have over 100 years of diving experience in Lembeh.

The Resort Location is directly opposite Nudi Falls, a little south of Lembeh Resort. It is built at the foot of a hill, and the Standard Beachfront Rooms are at ground level with 2 steps (we can add ramps for wheelchairs). The Bungalows are up approximately a dozen steps. All the rooms have air conditioning and hot water.

\$2,249 Per Person, Beachfront Room, Double Occupancy

\$2,499 Per Person, Deluxe Seaview Bungalow, Double Occupancy

\$2,799 Per Person, Beachfront Room, Single Occupancy

\$3,049 Per Person, Deluxe Seaview Bungalow, Single Occupancy

Guests' passports should have at least 6 months validity from the date of arrival in Indonesia.

We strongly recommend that all divers have DAN Insurance or an equivalent. Reef Photo & Video/PT Bakri Cono/ NAD-Lembeh Resort will not take any responsibility for expenses that occur due to inadequate insurance coverage (chamber treatment will easily top USD 5,000).

www.reefphoto.com

<https://reefphoto.com/collections/workshops-1/products/lembeh-photo-video-workshop-october-04-14-2019-1-850-per-person-beachfront-room-double-occupancy>

2019 Digital Shootout In Little Cayman

June 15-29, 2019

Warm Up Week: June 15-22, 2019 Event Week: June 22-29, 2019



Take it seriously or take it slow, the Digital Shootout is an underwater photography/videography vacation designed to take the shooter in the group to the next level.

If you're a new or an intermediate shooter, the Digital Shootout is our fast-track to better underwater imaging. In six days of seminars and diving, the Digital Shootout team will help dial in your underwater system and shooting techniques.

In early 2009, Little Cayman Beach Resort completed major room renovations to its popular dive resort. Guestroom upgrades include new furnishings inspired by tropical colors and textures. We have a total of 40 air-conditioned, spacious rooms situated in two-story 'palm-tree height' buildings and surrounded by

lush tropical foliage.

Each afternoon we offer professionally produced seminars on basic and advanced photo and video techniques. Just learning how to assemble your camera for the first time? Looking for the secrets of exposure and strobe placement? Our seminars are world renowned for their simple delivery of complex topics and will take you to the next level.

The workshops and experts assembled at this event will whisk you along the learning curve of underwater photography. By the end of the week, you will be shooting well enough to enter our friendly competition. The best images shot during the week will be awarded over \$30,000 in prizes.

www.thedigitalshootout.com



with Mike Bartick at Crystal Blue Resort

Improve your macro underwater photography skills with Photo Pro Mike Bartick at Crystal Blue Dive Resort in Anilao Philippines.

With its healthy reefs and incredible diversity of marine life, Anilao has some of the best macro photo opportunities in the ocean. Known as the nudibranch capital of the world, Anilao is home to over 600 species of Nudibranchs. You're also likely to see many species of frogfish, octopus, Rhinopias, pipefish, seahorses, and many other macro reef and muck diving critters.

Beginner, intermediate and advanced photographers will all benefit from this workshop. The workshops are fun, informative and will include natural history and photo techniques along with demonstrations and photo coaching.

The best way to learn is by

shooting and our photo pros will be on location with you to help improve your technique and to correct mistakes. Daily seminars throughout the trip will cover Macro shooting techniques such as:

Focus techniques, Lighting and Exposure, Strobe placement, Composition, Avoiding backscatter, Snooting, Shooting with Diopters, Backlighting.

Mike will also conduct some live edit sessions using his workflow method for improving your images and learning stronger compositions.

This course is limited to just 20 guests in order to maximize the one-on-one time with our instructors. Each boat dive is limited to just 4 divers and a guide. The guides are professionally trained critter spotters and know how to assist photographers in getting the best shots.

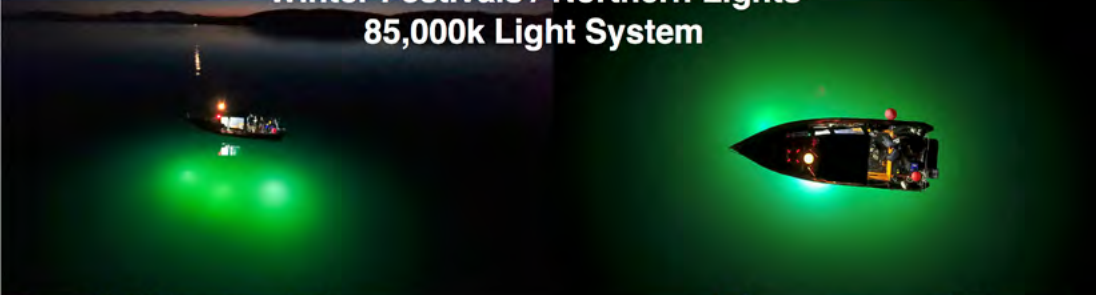
www.backscatter.com/reviews/post/Anilao-Philippines-Macro-Underwater-Photography-Workshop



Three Day Basking Shark & Wildlife Tours



Floodlight Night Diving In Scotland
Abundant Marine Life / Shipwrecks / Deep Water Blacra
Winter Festivals / Northern Lights
85,000k Light System



www.baskingsharkscotland.co.uk / www.diveoban.com

This basking shark tour is ideal for people who'd like to spend a little more time immersed in the Hebrides. On this tour we have three full days at sea and this will give you the best opportunity to experience basking sharks, natural wonders and other wildlife in the area. A longer trip also gives much better chances of success for sharks with the Atlantic weather too.

These trips are all based from the Isle of Coll and we visit Fingal's Cave and the seal lagoon.

You will spend three nights on Coll, allowing you to get to know the locals a little better over a wee dram. You'll have plenty of chances for early morning and evening otter spotting, wildlife watching in the bay and taking some nice pictures.

The schedule for the trip will be adapted to suit the group on board, the wildlife present at the time and the weather. We can spend the whole time with the sharks and add in as little or as much of the other highlights as

desired.

Our geographical area of operation is a basking shark 'hotspot', widely known as one of the best areas in the whole world for basking sharks. We offer a wide range of basking shark swimming and wildlife excursions to the Inner Hebrides. Our mission is to provide you with great interactions with basking sharks and the abundant wildlife of the area.

We create opportunities for you to experience in-water swimming with basking sharks, plus wildlife and adventure excursions. You can choose to swim, snorkel and kayak with sharks, seals and other amazing native marine life, or simply enjoy the rich experiences from the boat.

These tours run exclusively during July, August and the start of Sept.

www.baskingsharkscotland.co.uk

www.uwpmag.com

Bonneville Seabase



In the deserts of western Utah, there are secrets beyond imagination. Bonneville Seabase is one of those secrets.

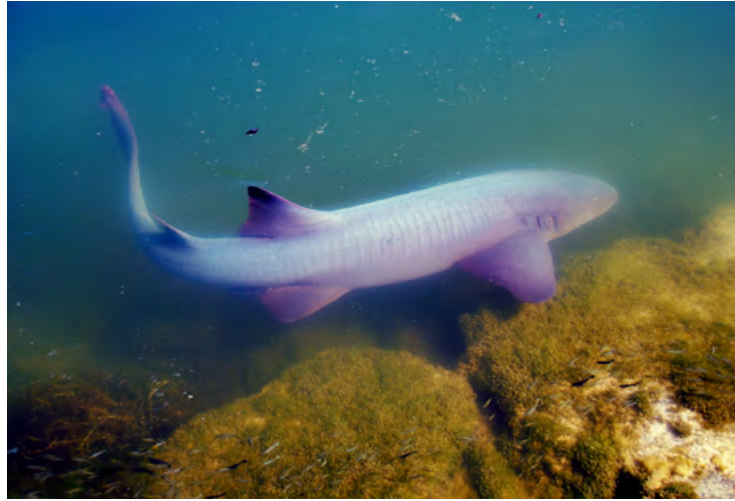
Located 40 miles west of Salt Lake City on the outskirts of Granstville, there is a natural phenomenon where spring water rising through the ancient lake bed of Bonneville becomes almost 3% saltwater. At the salinity of the ocean, the water wells up as warm springs, and with the addition of ocean fish, an inland ocean was formed for SCUBA and snorkeling.

Scuba divers and snorkelers are welcomed to come and explore the depths. With a little patience, you will see what lies beneath the surface of our little inland sea.

The popular facility has

received several improvements to make the experience even more enjoyable for divers and visitors. The oceanic wonderland is available by appointment Thursdays and Fridays from 9 a.m. to 2:30 p.m. and Saturdays and Sundays from 8 a.m. to 3 p.m. After several years of growth, many of Bonneville Seabase's resident fish have become enormous.

Besides the thrill of scuba diving or snorkeling just below the scenic Stansbury Mountains, Bonneville Seabase's unique saltwater thrives with abundant marine life. Easily seen are Damsels, Lookdown Jacks, Puffers and Pompanos. There's also Angel Fish, Groupers, Grunts, Jacks, Tangs, Rabbit fish—and our resident nurse sharks, one of which is over eight-feet long.



Moalboal and Anda, Philippines August 2019



Join downunderpix, for an amazing underwater photography dive trip with something for everyone diving Cebu & Bohol in the Philippines.

We leave on 17 August 2019 from Adelaide and travel to Cebu via Singapore, staying overnight there. We have 5 days diving at Moalboal, 1 of which will be a day trip to Oslob for a dive and snorkel with the whalesharks. After Moalboal we head for Anda by road and boat, via Cabilao where we will have 2 dives. We then have 5 days diving at Anda, before returning home from Cebu.

The estimated cost per person for the trip is \$5,450.

www.seabase.net

www.downunderpix.com



BASKING SHARK
SCOTLAND



4 Day & 7 Day Tours - 100% Success in 2017 (2-3 Day Tours 83%)

www.baskingsharkscotland.co.uk



- Biggest Numbers & Most Consistent Worldwide Basking Shark Hotspot
- Based in Hebridean Isles
- Grey & Common Seals
- Whale & Dolphin Hotspot
- Puffins, Seabirds & Eagles
- Evening Photography Dives
- Stunning Scenery
- One - Seven Day Tours
- Guided by Marine Biologists
- Scientific Research Programme

Sea Shepherd Operation Virus Hunter Major Victory for Wild Salmon and Orca Whales



Operation Virus Hunter began in 2016 as a collaboration between Sea Shepherd, Dr. Alexandra Morton and the Kwikwasut'inuxw Haxwa'mis, 'Namgis and Mamalilikulla First Nations.

Sea Shepherd provided our sailing vessel Martin Sheen each summer for 2016, 2017 and 2018. The objective was to assist and support the research efforts of Dr. Morton and the activist activities of the First Nations of British Columbia.

Dr. Morton and our Sea Shepherd crew visited salmon farms throughout each summer to do tests that successfully exposed evidence of salmon retroviruses and sea lice parasites being transmitted from domestic alien Atlantic salmon to indigenous native Pacific salmon.

The Sea Shepherd crew also provided transportation and support for First Nations activists who boarded and occupied salmon farms.

These activities led to a recent decision by the Provincial Government of British Columbia to remove salmon farms and to give First Nations the power to inspect salmon farms and order their removal from their legal territories if they should so choose.

Removing salmon farms from the salmon migration routes is a huge step in the right direction for the salmon, as well as the Southern Resident Killer Whales who rely on wild salmon as a major food source.

www.seashepherd.org

www.uwpmag.com

Japan Announces End of Whaling in Southern Ocean Whale Sanctuary

Since 2002, Sea Shepherd has opposed Japanese whaling operations in the Southern Ocean Whale Sanctuary with expeditions to Antarctic waters first in 2002 followed by continuous campaigns from 2005 until 2017.

During this period over 6,000 whales were saved from the harpoons of Japanese commercial whalers posing as research whalers by Sea Shepherd interventions.

In 2017, the Japanese government began to invest millions of dollars in security efforts to prevent Sea Shepherd from engaging their fleets. These security measures included military grade real time surveillance.

Although this prevented Sea Shepherd from returning to the Southern Ocean in 2018, it also placed Japan in a position of expending huge resources on continuous security.

In other words, the cost of preventing Sea Shepherd intervention became very expensive.

This and the verdict of the International Court of Justice that exposed Japanese research as fraudulent, coupled with worldwide condemnation of their Southern Ocean activities has in the opinion of Captain Paul Watson of Sea Shepherd led to this decision to declare they will



Photo Credit: Sea Shepherd & Marianna Baldo

openly undertake commercial whaling activities.

The scheme to pose as researchers will now be dropped and that means there can be absolutely no justification for hunting whales in an internationally established whale sanctuary. This will be the last year of Japanese whaling activities in the Southern Ocean.

Sea Shepherd's objective of ending the slaughter of whales in the Southern Ocean Whale Sanctuary has been realized. This is a victory for the campaign to make the Southern Ocean a whaling free zone.

If Japan decides to withdraw from the International Whaling



Photo Credit: Sea Shepherd & Barbara Veiga

Commission (IWC) it will allow the IWC to pass the motion to establish the South Atlantic Whale Sanctuary thus effectively ending whaling in the Southern Hemisphere.

Japan will now join Norway and Iceland as rogue outlaw whaling nations in the North Pacific and the North Atlantic.

The Whale Wars in the Southern Ocean will soon be over. The focus now must be the Northern Hemisphere.

Sea Shepherd welcomes this announcement by Japan and views it as a positive development.

Captain Paul Watson issued a statement saying, "We are delighted

to see the end of whaling in the Southern Ocean Whale Sanctuary. We are delighted that we will soon have a South Atlantic Whale Sanctuary and we look forward to continuing to oppose the three remaining pirate whaling nations of Norway, Japan and Iceland. Whaling as a 'legal' industry has ended. All that remains is to mop up the pirates."

www.seashepherd.org

DONATE

Palau ban on sunscreen ingredients

Stream2Sea may be located in Florida, but it was conceived in Palau. “We were on a live-aboard, diving a spectacular reef when I noticed a sunscreen oil slick coming off a group of snorkelers,” recalls Autumn Blum, an avid diver and award-winning cosmetic chemist.

“I knew then that I had to start making products that were truly safe for the oceans I love.” The reason sunscreens are so loaded with marine toxic ingredients is that each one covers a tiny spectrum of sunlight that causes sunburn and ages skin – it takes several to cover a broad spectrum of UV rays.

Mineral sunscreens, on the other hand, can provide full spectrum, natural coverage by sitting on the top of your skin instead of being absorbed into it. “Scientists have known that ingredients like oxybenzone and octinoxate – which the Hawaiian government banned earlier this year – were not safe for humans since the early 1990s,” said Blum, now chief formulator and CEO of Stream2Sea.

“Palau has taken it a step further and has banned other ingredients from the Haereticus Environmental Lab’s toxin list that researchers have proven to be dangerous to coral reefs.”



Stream2Sea is growing in popularity in Palau where it is used because it is the only mineral-based sunscreen that has been tested and proven safe for fresh and saltwater fish, as well as vulnerable coral larva, she adds. In Florida, where the political climate is different, Stream2Sea has developed an “educate not legislate” program that provides watersport operators with deeply discounted reef-safe sunscreen so that their clients can use it at no charge. “The operators understand the issues and know that they need to protect the coral reefs to stay in business.”

www.stream2sea.com

The leading online resource for underwater photographers and videographers



TECHNIQUES

Learn the fundamentals of underwater photography and progress to the latest, most innovative techniques taught by the top pros in the industry

TRAVEL

Read about the experiences of accomplished shooters as they visit the world’s most iconic dive spots, and get inside tips on maximizing your dive vacation

ARTICLES

Discover the world of underwater imaging through compelling features from photographers, filmmakers, ocean scientists, industry experts, and more

NEWS

Keep up to date with everything that matters to underwater photographers, from the latest gear and gadgets to the newest developments in marine research

GALLERIES

Browse the portfolios of the industry’s biggest names in underwater photography and share your own work online with like-minded members

EXPEDITIONS

Journey with us to the hottest dive destinations on the planet and learn better technique from the most talented image makers in the scubaverse

DIVE PHOTO GUIDE

www.divephotoguide.com · contact@divephotoguide.com



DL1 DS Link Nikon TTL Converter

We pioneered underwater TTL flash exposure for DSLR and mirrorless cameras. This this is the next iteration of our world renowned Nikon TTL flash circuitry.

Key Advantages

- Faster, more accurate, and more reliable than fiber optic TTL triggers
- Always ready when you are - no batteries required
- Available with either Ikelite or Nikonos N5 connector for compatibility with housings by most manufacturers
- Switch between TTL and manual exposure with the press of a button
- Supports flash exposure (EV) compensation set in the camera
- Supports rear curtain sync
- Improves strobe battery life and recycle time
- One TTL converter supports a wide selection of camera models, including most DSLRs and the new Nikon Z6 and Z7 mirrorless cameras
- Independently waterproof sealed



Read more at ikelite.com.

New Products

Seaflex



Seaflex is a film, drama, advertising, documentary underwater shooting service company.

The Seaflex underwater shooting system is divided into remote camera housing equipment, underwater LED lighting equipment, underwater photography support equipment Aqua Remote Head and variable weight type crane equipment.

All equipment is manufactured with SEAFLEX's technology.

Underwater remote camera housings support a number of cinema cameras including Arri Alexa65, Alexalf, Alexasxt, Alexa Mini, Amira, Red Helium, Monster, Sony Venice, F55, Canon C500, C300mark II and Phantom Flex 4K digital 35mm camera equipment.

All remote camera housing units can support 3ch (Focus, Iris, Zoom) remote control system by wire cable.

Underwater lighting is based on safety, and was made by LED light which is an environmentally friendly light source. It is D600w LED FLO equipment developed in 2017 and its specification is 78,000 Lumen and supplies DC power .

The variable weight 12m crane equipment combines Aqua Remote Head with remote camera housing. It is an underwater crane that responds to changes in buoyancy when shooting underwater.

Seaflex is holding monthly underwater photography seminars to train professional underwater photographer sby inviting various

video-related experts from 2017.

Seaflex always makes an effort to service the world's best underwater photography and to become an underwater photography equipment manufacturer.

Seaflex is creating a new Underwater Workflow system to make underwater shooting easier.

Seaflex will do its best to become a company that enables filmmakers and directors to create imaginative underwater imagery that they want to produce.

I would like to meet with an overseas partner who will work with Seaflex underwater photography equipment and underwater photography service.

Underwater Cinematographer
Jun Kim

www.seaflexfilm.com

YS-D2 STROBE



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READY & TTL CONFIRMATION

DUAL POWERED MODELLING
LIGHT WITH RED FILTERS

BACKLIT ILLUMINATED
REAR CONTROL PANEL

FASTER RECYCLING TIME

DS-TTL II WITH +/-2 EV RANGE

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THE UNDERWATER IMAGING COMPANY

www.sea-sea.com

01803 663012 - sales@sea-sea.com

Ikelite 200DL Housing for Canon EOS R Full Frame Mirrorless



We are very excited for this new line of full frame mirrorless cameras from Canon.

The new housing is packed with features at a fraction of the cost and weight of an aluminum alternative.

We are in the process of updating the DL system port chart to include RF-mount lenses and EF-mount lenses when used with the new EF-EOS R Adapter. We will post the new port information within the upcoming weeks.

Key Features

- * Durable, lightweight, and corrosion-free ABS-PC construction
- * Dependable and versatile DL port system
- * Depth rated to 200 feet (60m)
- * Ergonomic access to important camera functions
- * Vacuum valve pre-installed
- * Spare M16 port for use with third-party accessories

- * Lighter and smaller than aluminum
- * Full view of the camera and o-ring seal through the back of the housing
- * Made in USA

This housing features our robust Dry Lock (DL) port system. “Dry Lock” refers to the placement of the o-ring on the outside of the port mount. This improves visibility and reduces the chances of water dropping onto your precious camera sensor. DL ports are the lightest on the market, yet robust and capable of standing up to rough surf. Attachment is quick and secure. A system of extensions can accommodate a huge variety of lenses with ease.

Most popular zoom lenses and select lens focus rings can be engaged using simple gearing that puts adjustment right at your fingertips. A large, soft-touch knob on the side of the housing makes fine tuned adjustments a breeze. Zoom and focus

gears differ depending on which lens you are using. Zoom gears sold separately.

The included vacuum valve allows you to pressurize the housing

to check for leaks prior to putting your expensive equipment in the water. Use of the vacuum valve requires a compatible Vacuum Pump with Gauge # 47011, sold separately.

There is no greater assurance than being able to see your camera and o-ring seal through the back of the housing. Our signature open-groove design suspends the rear o-ring in a natural position that is easier to maintain and more reliable than forcing the o-ring into a channel. Once the housing is closed you can see the o-ring form a solid, waterproof seal.

www.ikelite.com

CB70 SQUARE GROUPEE UNDERWATER HOUSING TRANSPORT & RINSE TANK

* SHOWN WITH
NAUTICAM 1DX
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SEA&SEA STROBES
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Sea&Sea YS-D2

NEW JAPANESE VERSION



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Sea & Sea MDX-R housing for the Canon EOS R

Taking advantages of the mirrorless camera's compact design and light weight, the housing has been designed accordingly to enhance these features. Compared to SLR MDX-5D Mark V camera housing, the MDX-R is 100g/3.5oz lighter in weight on land.

(Weight) MDX-R: 2,900g/102oz,
MDX-5D Mark IV: 3,000g/106oz

The MDX-R is compatible with the system chart for the MDX series SLR housings. You can utilize EF mount lenses with the mount adapter and ports/gears for the MDX series housings.

The new optional Optical YS Converter C/R which converts the camera's hot-shoe TTL signal into an LED light signal is available. With the converter, both TTL and manual exposure photography is possible.

A window for the camera's upper control panel is also incorporated. As brightness of the camera's upper control panel has increased, the visibility is now greatly improved.

The Port Lock prevents the port from turning or loosening and the Port Lock lever is specifically located to avoid being unlocked accidentally.



The housing is equipped with a lens-lock release button which makes it possible to change lenses easily, without opening the housing.

Pulling out the Focus/Zoom Dial gives sufficient room inside the housing to easily accommodate larger diameter lenses.

All controls have luminescence stickers which glow in a dark environment.

Equipped with the Optical Viewfinder 0.5x as standard. Other optional viewfinders such as Optical Viewfinder 0.66x, and 0.8x can be used. When the VF45 and VF180 1.2x is mounted on housing, the corners of the camera's viewfinder cannot be viewed due to vignetting.

Sync Cord 2-pin Connector enables use of conventional hardwired Sync cable (Manual mode only).

Equipped with two sacrificial



zinc diodes (one on the front case and the other on the rear) to prevent electrolysis damage.

Equipped with under guard to protect from scratch.

Specifications
MDX-R

[Construction] Body: corrosion-resistant aluminum alloy (machined)

Grip: corrosion-resistant die-cast aluminum alloy

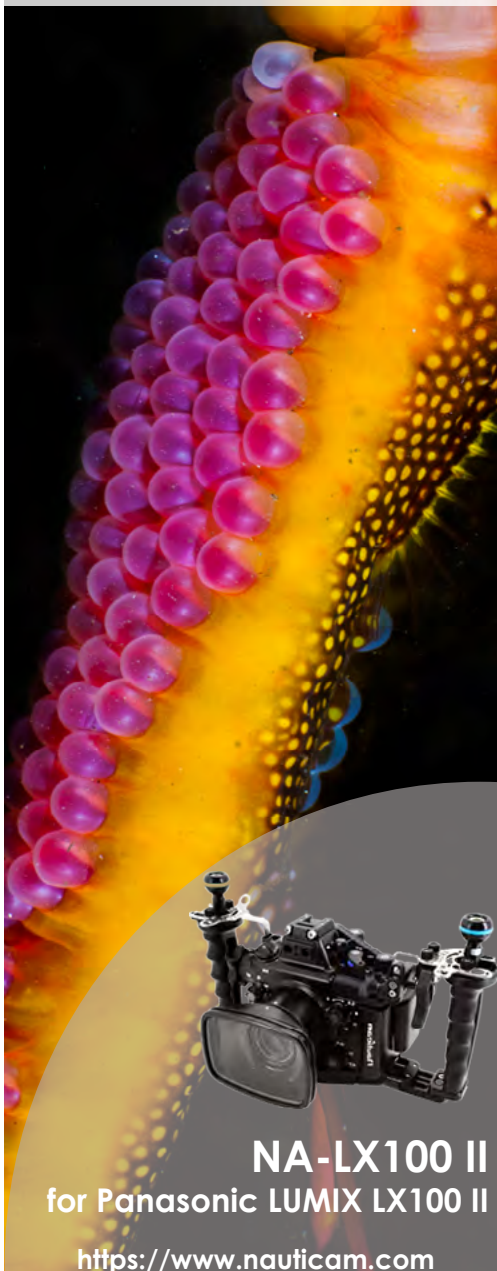
[Depth rating] 100m / 330ft

[Dimensions (WxHxD)] 342 x 174 x 159 mm / 13.5 x 6.9 x 6.3 inches

[Weight] Approx. 2,900g / 102oz (Housing only)

www.sea-sea.com

www.uwpmag.com



NA-LX100 II
for Panasonic LUMIX LX100 II

<https://www.nauticam.com>

The VideoRay Pro 5 has arrived!

The VideoRay Mission Specialist Series (MSS) Pro 5 configuration is designed for speed and efficiency, weighing in at 10 kg (22 lb). The Pro 5 builds on the strengths of the Pro 4, with more thrust, longer tether lengths, higher resolution video, and the advantages of the MSS modular systems.

The three-thruster system has a forward speed of over 4.4 knots, and utilizes a system of interchangeable, modular components residing on a single, intelligent network. The Pro 5 is designed to handle missions with size, space, weight, and deployment speed



constraints, such as infrastructure inspections beyond the reach of divers, search & recovery, exploring the ocean floor up to 305m, and various others. The Pro 5 builds on the strengths of the Pro 4, with more thrust, longer tether lengths, higher resolution video, and the advantages of the MSS modular systems.

www.videoray.com

Olympus TG-5 Super Macro Diver Kit



With this kit, you can make perfectly illuminated super macro shots, just with the INTERNAL flash! The Ring flash that is included in this Super Macro kit ensures you that subjects can be well exposed with the internal flash at very short distances.

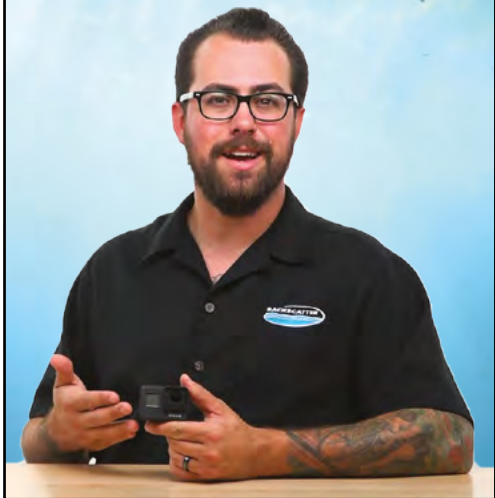
The macro mode of the Olympus TG-5 is great. But the lens port of the PT-058 housing blocks some parts of the flash light and can create dark shadows. The ring flash diffuser solves this problem.

www.uwcamerastore.com

GOPRO HERO7



UNDERWATER CAMERA REVIEW



Sony AX700 with Gates housing and SP34A port



The availability of good consumer class camcorders has been very limited the last decade. Underwater filmers were forced to use action cameras and photocameras. Action cameras lack an autofocus system and zoom and therefore macro possibilities are very limited. Photocameras feature a totally different auto-focus system that requires much more action and settings from the diver.

The Sony AX700, together with the fantastic Gates AX700 housing, has superb images quality and an extremely good autofocus system which makes it perfect for underwater filming.

Recreational divers will appreciate the compact size, 'point and shoot' instant auto focus / exposure, and easy to see camera LCD viewfinder. Want more control? Manual controls include exposure

(iris, gain, ss), WB, flip color filter, ND filter and 3 assignables. Professionals get even more: 4 hours+ battery life recording on 2 SD cards, 4K HDR HLG multiple format recording, and optional surface feed SDI.

And yet there's more. The camera 12X optical zoom + Gates GP34A Wide Angle Port + SAGA flip diopter means the biggest optical range of any underwater system. No lens changes required for over 100° wide angle to super macro all on the same dive. And of course, the AX700 / Z90 Housing is a Gates. "Bulletproof" reliability. 2 year renewable warranty.

Compatible cameras: Sony FDR-AX700 / HXR-NX80 / PXW-Z90

Controls (All Mechanical)
Power, Record-Standby / Assign #4, Zoom, LCD Swivel, Internal Flip Color Correction Filter, Mode (Photo

/ Video), Assign #5/6, Iris, Gain / ISO, Shutter Speed, White Balance, ND Filter, Auto / Manual Focus, Focus Ring, Custom Dial (Manual Focus / Exposure),

DIMENSIONS

11.7" D x 5.8" H x 12.6" W " (16.7" w/handles) 30 cm x 15 cm x 32 cm (42cm)

CONSTRUCTION

Machined Aluminum, Type III Hard Anodized finish.

Stainless steel hardware.

WEIGHT IN AIR

Dry: 12.5 lbs / 5.7 kg (w/camera & GP34A Port)

WEIGHT IN WATER

Slightly negative (All Ports)

DEPTH RATING

300 feet / 91meters

www.uwcamerastore.com

OLYMPUS TG-5



BEST UNDERWATER CAMERA SETTINGS

Nauticam NA-Z7 Housing for Nikon Z7 and Z6 Cameras



The Z7 and Z6, Nikon's first full-frame mirrorless cameras offer underwater shooters the same legendary Nikon image quality with the versatility of an electronic viewfinder and the more compact form factor of a mirrorless system. The Nauticam NA-Z7 housing supports both the Z6 and Z7 camera models.

The NA-Z7 inherits all of the key innovative features from Nauticam DSLR systems scaled into a smaller form factor built around the Z6 and Z7 cameras. Best of all, it uses the same N120 Port System!

The Nauticam NA-Z7 housing allows not only the use of the new Z mount Nikon glass but also the legendary Nikon F mount lenses with the Nikon FTZ Adapter. The N120 port system allows all compatible Nikon F-mount lenses to be used, providing underwater photographers with a world class lineup of fisheye, ultra wide, mid-range, and macro

lenses that can be used with the NA-Z7 housing. Existing Nauticam DSLR housing owners will be glad to know that all of their ports, viewfinders, and Nikon lens gears transition seamlessly to the NA-Z7 housing, and support will be added for the exciting new Z-mount lenses as they are released.

For those switching between photo and video modes, an easily reachable switch is located on the right rear of the housing. The right side double thumb lever, easily reached from the right handle features access to the AF-on and Record buttons respectively. Between the double thumb lever and the multi-stage shutter release is an ISO lever allowing quick changes to sensitivity.

The left double thumb lever accesses the DISP and Playback controls. The Zoom In and Zoom Out controls, located on the right rear of the camera body is relocated to the left side of the housing to a location

more familiar to Nauticam housing users.

The switch that allows for switching between the LCD display and the EVF, a crucial and much used control with mirrorless systems is located close to the left handle within easy reach.

Front and rear control dials are readily accessible by the familiar large knurled dials at the right handle. The ergonomic housing handles are rubberized and feature stainless steel stiffening brackets to ensure a stable platform when using large strobes or video lights attached to the pre-installed 1" mounting balls.

The NA-Z7 comes with Nauticam's self powered manual flash trigger preinstalled.

Depth Rating: 100m. Weight: 3.02 kg. Dimensions: 360mm(W) x 200mm(H) x 160mm(D)

www.nauticam.com

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Nauticam NA-A7RIII housing for Sony A7RIII and A7III



Nauticam NA-EMIII housing for Olympus OM-D EM-1 Mark II



Nauticam NA-RX100VI for Sony RX100 VI



Nauticam NA-D850 for Nikon D850

WE ARE UNDERWATER PHOTOGRAPHERS... JUST LIKE YOU.

Ikelite 200DL Underwater Housing for Nikon Z6 & Z7 Full Frame Mirrorless cameras



One housing, two game-changing new cameras. We have confirmed compatibility of the Nikon Z6 full frame mirrorless camera in the housing for the Nikon Z7.

Support for Z-mount and F-mount lenses. Everything you want in a compact, lightweight housing body.

The housing for Nikon Z6 and Z7 cameras is shipping now.

Key Features

- * Durable and corrosion-free ABS-PC construction

- * Easy to assemble and dependable DL port system
- * Depth rated to 200 feet (60m)
- * Ergonomic access to important camera functions
- * Vacuum valve pre-installed
- * Spare M16 port for use with third-party accessories
- * Lighter and smaller than aluminum
- * Full view of the camera and o-ring seal through the back of the housing
- * Made in USA

www.ikelite.com

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JUST LIKE YOU!**

INON Z-330 STROBE

THE STROBE WE HAVE ALL BEEN WAITING FOR



Fibre snoots, dome diffusers and snoots are also available for the Z-330.



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Divevolk



DIVEVOLK Diving Assistant, consisting of a full touch-screen iPhone underwater case, a diving headset and a wireless controlled synchronous flash, is the world's first design that is the most convenient and lightweight, allowing you to use all mobile phone functions underwater, using products up to 50 meters/164 feet deep. DIVEVOLK makes it as convenient for you to use your mobile phone underwater as it is for you to use it on land! It establishes an open underwater intelligent hardware platform, and can be used as the control terminal of other diving equipment, bringing safety, entertainment and convenience to divers!



Depth Rating 40m/131ft
Screen Touch Life 100000 times
Button Press Life 100000 times
Dimension
163mmX76mmX25mm
Weight 110g
Color Choice
Black, White, Pink

www.divevolk.com



A RANGE OF QUALITY HAND-HELD AND CANISTER LED DIVE LIGHTS

PHOTO-VIDEO LIGHTS AVAILABLE WITH WHITE, UV AND RED LIGHT OUTPUTS

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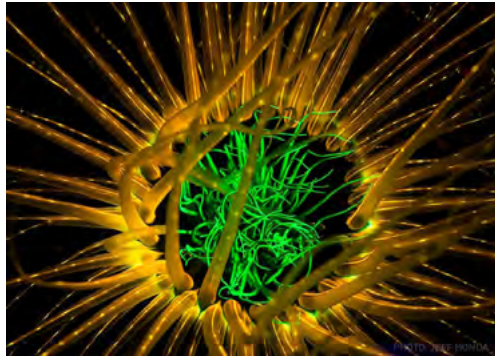
SONY RX100VI



UNDERWATER CAMERA REVIEW



Sola Nightsea Light



Discover the hidden world of underwater fluorescence with the Sola NightSea Light. Blue LEDs cause proteins and minerals to fluoresce brightly; view through a yellow filter to see the psychedelic and brilliantly saturated colors and patterns.

Features:

- 3000mW flood and 1700mW spot output certified to the FL-1 Standard
- Regulated output ensures light does not dim in use; custom firmware keeps lumens consistent
- Easily toggle between 12° spot and 60° flood beams with one-touch switch
- Custom optics produce a clean beam void of distracting hot spots or harsh edges
- Colored Status LED for battery and mode indication for easy power management
- Attached Phosphor Cover converts blue light to white for navigation and general use (up to 435 lumens of



white light)

- Factory sealed body ensures flood-free performance and long-term reliability
- External wet charge interface means recharging is quick and dependable
- Travel-friendly design with minimal weight or bulk approved for carry-on and check-in luggage
- Includes nightsea mask filter to block out blue light and only see fluorescence
- Universal hand strap mounts securely on wrist with or without gloves for hands-free mobility

www.lightandmotion.com



Nauticam NA-RX100VI for Sony DSC-RX100 VI



"Close in on the Action"

With the sixth iteration of the RX100 series, Sony has continued to add features to this workhorse compact camera and Nauticam is also adapting with the new NA-RX100VI housing. The NA-RX100VI housing provides the ergonomics, build quality, and innovative feature set our customers demand in a tiny, travel friendly package with the addition of an interchangeable port system to accommodate the longer zoom lens of the Mark VI, a 24-200mm equivalent. Nauticam designs are always evolving, with new features integrated into each new release. The ergonomic experience has been tailored for a photographer's right hand on the side of the housing, placing key controls literally at the users finger tips.

www.reefphoto.com



UNLEASH
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your creative potential



NA-GFX Housing for
Fujifilm GFX 50S Camera

www.nauticam.cn

Fantasea Sony RX100 VI housing



Fantasea Line is proud to announce the world's toughest, lightweight housing for the Sony RX100 VI. The housing is now taking orders!

The FRX100 VI Limited Edition Housing features a stylish and ergonomic design, specifically created for the Sony RX100 VI digital camera.

The housing's flat port features a 67mm thread, allowing the use of "wet" wide angle and macro conversion lenses, thus capturing both macro and wide angle images during the same dive.

The housing allows operating the camera lens within an ideal focal range of 24-66mm. This focal range enables utilizing the most powerful capabilities of the camera for underwater photography.

The housing is manufactured to the highest professional standards



of function, style and durability. It is depth rated to 60m/200 feet and features ergonomically designed and labeled controls. The Fantasea FRX100 VI Limited Edition is the ultimate waterproof home for the Sony RX100 VI.

www.fantasea.com



Nauticam NA D-850 for Nikon D500



"The Next Frontier"

Proving that speed and resolution can indeed coexist, the Nikon D850 is a multimedia DSLR that brings together robust stills capabilities along with apt movie and time-lapse recording. Revolving around a newly designed 45.7MP BSI CMOS sensor and proven EXPEED 5 image processor, the D850 is clearly distinguished by its high resolution for recording detailed imagery. Nauticam is the market leader in build quality, ergonomics, and reliability. Built on a foundation of innovative product design and modern manufacturing technology, NA-D850 is the ultimate accessory for the exciting new Nikon D850 camera.

www.reefphoto.com

**Unleash
Your
Creative
Potential**



**NA - Z7
for Nikon Z7**



<https://www.nauticam.com>

**Ikelite Anti-Reflection
Ring for Nikon 18-
55mm AF-P DX f/3.5-
5.6G Lens**



A self-adhesive vinyl label covers the white lettering and ring details on the front of the lens to reduce reflections when used behind a dome port underwater.

Designed specifically for use with the following lenses:

Nikon AF-P DX 18-55mm f/3.5-5.6G

www.ikelite.com

Revolution 15000



This light builds on the experience gained by our engineers and by the collaboration with underwater photography and video professionals. This synergy made it possible to create a lighting system with unique features in its kind, suitable for underwater video footage and macro photography.

The magnetic rotating switch allows a practical management of the three different ranges of power available. 650W halogen equivalent.

Duration times:

30% - about 4 hours

70% - about 1 hour and 20 minutes

100% - about 50 minutes

Charging time about 3 hours with fully discharged battery.

14800 Lumen

3500°K

CRI 93 (color rendering index)

Angle 110°

Battery: LI.FE (Save Batteries)

Power 12V - 7 Ah

1.290,00 € Inc. vat

www.easydive.it

www.uwpmag.com

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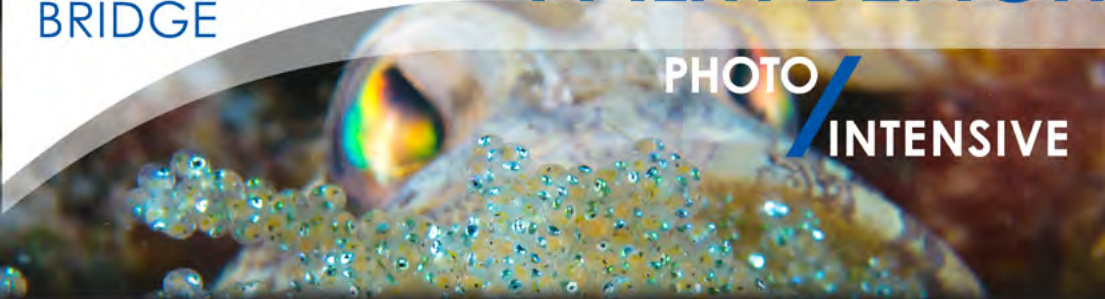


PHOTO
/
INTENSIVE



Darkwater Vision



Darkwater Vision was started in 2016 with the goal of improving safety and efficiency of underwater operations in zero visibility and low visibility conditions. DWV now has three products, all of which serve different purposes to the dive market. It is with great pleasure that the DWV family of products helps public safety, commercial, and military customers accomplish their tasks more efficiently, and most of all, more safely.



Depending on the type of water, orientation and intensity of the lights, Darkwater Vision technology can see anywhere from 1-7 feet. In dark, stained water, visibility can be upwards of 5-7 feet; while in more turbid environments, visibility may only be 2-3 feet.

environments from dark water to dirty water. The limitations are highly dependent upon many factors. We encourage you to speak with us about your local water conditions, and to arrange a demo of our system in your local waters to see if it's right for you

Darkwater Vision technology can enhance visibility in many

www.darkwatervision.com

Underwater Photography Workshop



Phil Rudin

Join Phil Rudin & Beth Watson
Take your photography to the next level!



Beth Watson

Puerto Galera, Philippines
El Galleon/Asia Divers
June 16-23, 2019

Photo Workshop:

- Hands-on in water mentoring
- Short slideshow presentations throughout the week
- Learn about lighting, composition, camera settings, equipment and much more
- Learn macro and wide angle techniques using fisheye and rectilinear lenses
- Daily photo critiques
- Lightroom and Photoshop editing techniques
- Learn creative lighting and advanced photography techniques
- Join Phil and Beth for fun, learning, laughter and friendship

Packages includes:

- * 7 night stay ~ double shared room
- * Full board (all meals)
- * Up to 4 dives per day with up (w/tank, weight belt, boat and guide)
- * FREE NITROX for those certified ~ recommended
- * One free boat trip to Verde Island
- * Photo Workshop

Seaview Room ~ per person USD \$1,904

Single supplement ~ Seaview room, diver with photo workshop USD \$2,269

Companion non-diver price (shared room, full board meals) - USD \$756.00

Poolside Room ~ per person USD \$1,823

Single supplement ~ Poolside room, diver with photo workshop USD \$2,128

Companion non-diver price (shared room, full board meals) - USD = \$675.50

EXCLUSIONS:

- Airfare to Manila
- Private transfers from Manila airport or hotel to El Galleon Beach Resort
The land transfer will take around 2.5 hours and the boat approx. 1 hour.
1-6 persons - USD 320 7-12 persons - USD 480 13-24 persons USD 960
- Drinks, alcohol, gratuities and incidentals

OPTIONAL: 3 - NIGHT Add on:

includes 3 nights' accommodation, with full board, up to 4 day-dives a day (w/tank, w-belt, boat, and guide)

Seaview Double: USD 558.60

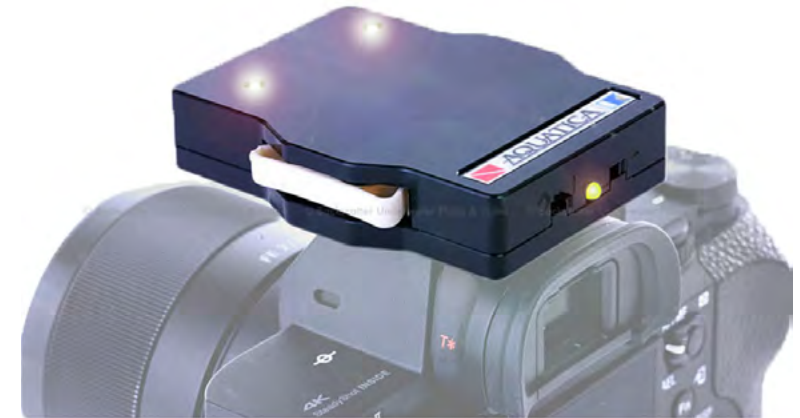
Poolside Double: USD 524.10

Seaview Single: USD 723.6

Poolside Single: USD 654.6



Aquatica LED Optical Flash Trigger for the Canon 5D series



Using the latest in LED technology, Aquatica has created an answer for users who want to use Fiber Optic Sync instead of the traditional N5 electrical cables. The trigger is powered by 2 lithium button batteries with a life of over 5000 pulses and can easily fire at over 10 frames per second!

In addition, there are additional benefits to using optical triggers:

1. The use of a sealed Optical Port adds to the integrity of the housing
2. Removes the chance of corrosion of the sensitive contacts within the bulkhead and strobe
3. Reduced cost and increased robustness of Fiber Optic Sync Cords vs traditional N5 electrical cords
4. Repair of a Fiber Optic Sync Cord is easily done in the field

Specifications:

Power source: 2 x 2016 Lithium batteries

No of shots: Over 5000

Dimensions: 3"x 1.5"x 0.4"

www.backscatter.com

www.asiadivers.com/2019-underwater-photography-workshop

MIRRORLESS MIRRORLESS ON THE WALL



WHO HAS THE LARGEST SELECTION
OF THEM ALL?



THATS WHO.

Ikelite Trim Weight System for DSLR & Mirrorless Housings

Adjust the balance and buoyancy of your Ikelite DSLR or mirrorless housing. Our Dry Lock underwater housings are designed to keep travel weight at an absolute minimum. These housings and lens ports are so light that, depending on the camera and lens you are using, some systems may actually be positively buoyant. Adding weight to the system can make it even easier and more comfortable to shoot underwater.

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Base with Dual Quick Release
Handles # 4077.68
Base for DL and FL Housings #
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Nauticam NA-A7RIII for Sony a7R III



"Reality Realized"

Sony, the pioneers of the full-frame mirrorless camera with their a7 line have brought us their latest iteration and it is awesome. Taking cues from the just released a9 the a7R III adds better autofocus, faster continuous shooting, and the same great 5-axis stabilization we've come to love. 4K footage can be captured either from the full width of the sensor or from a Super 35 size crop. A professional housing befitting of a top-of-the-line camera, the NA-A7RIII 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-7RIII continues this tradition.

www.reefphoto.com

Nauticam NA-R Housing for Canon EOS R Camera



With the Canon EOS R camera, underwater image makers are seeing a full-frame mirrorless camera that incorporates Canon's dual-pixel autofocus! The EOS R has the ability to be used with the EF lens lineup via an adapter, or the new RF mount lenses with breakthrough features.

The Nauticam NA-R underwater housing embodies Nauticam's drive for innovation. For many, the EOS R is a move from a full-frame Canon DSLR. To support both the legacy EF and native R-mount lenses, Nauticam has equipped the NA-R with an N120 port mount. This large diameter port system allows all existing EF-mount DSLR configurations to be used, and is prepared to accommodate the R Mount lenses that will come.

The control layout will be instantly familiar for anyone with experience using Nauticam housings for Canon DSLR cameras.

Two lens release buttons, one

for RF and one for EF lenses used with the optional Canon adapter, are located on the front of the housing to make lens removal through the port opening simple.

An additional control wheel is located on the left side of the housing and will interface with the control ring on the supported EF to EOS-R Mount Adapter with Control Ring using the optional gear (PN 19561).

Nauticam engineers are obsessed with providing the most convenient access possible to all key camera controls. This Mission Control philosophy extends to the NA-R where a dual thumb lever and dual sub-lever are placed by the right handle. The upper thumb lever activates the "AF-On" and the lower the "Info" buttons while the sub-lever corresponds to the "M-Fn" and "Record" buttons. Near the left handle is a thumb lever for "Playback" as well as a dedicated

switch to change from using LCD to the EVF.

Large knurled and rubberized control dials access the camera's "main" and "sub" command dials. The two-stage trigger allows for smooth focus and firing activation. Additional buttons for "Menu" and "Focus Point Selection" are also easily reached from the handles.

Flash triggering is achieved via one of two optional Flash Triggers, a manual LED trigger (PN 26301) or a TTL Flash Trigger (PN 26321) that use the built-in fiber optic bulkheads with optional fiber-optic cables to trigger supported strobes. For controlling strobes that do not support fiber optic flash triggering, a variety of legacy hot-shoe flash control bulkheads are available.

www.nauticam.com

INON Strobe Dome Filter ND



INON INC. is pleased to announce official release of new Strobe Dome Filter ND to use for Z-330/D-200 strobe to reduce strobe output at 4.0EV.

When shooting a subject from close range, using open aperture or higher ISO setting etc. would give you overexposed images by too much strobe light. Using the Strobe Dome Filter ND reduces strobe output at 4.0EV and dramatically helps not to have overexposed images.

The Strobe Dome Filter ND is compatible only with Z-330/D-200 strobe and not usable for any other strobe.

www.inon.co.jp

Mangrove Diffuser DD-A25-50



Adjustable white dome diffuser for video lights and strobes from 25 to 50mm diameter, it allows to further increase your strobe's angle of coverage beyond that available with a standard flat diffuser.

This domed diffuser provides the softest, widest coverage possible. This combination of material and shape spreads light wider than a traditional diffuser and has a higher transmissivity to let more light through.

There is no cooling effect so the warm, natural glow of your strobe is preserved.

Attaches to the front of your strobe or torch with a secure, press fit. Lanyard ring and lanyard included.

www.aditech-uw.com

Hugyfot Vision Standalone Monitor

This standalone monitor system has been developed to be used in combination with cameras/housings that have a free HDMI port. The large 7" HDMI monitor displays every detail and is extremely helpful when shooting macro images. The housing is powered by 1 lithium power bank that guarantees a 8 hour battery life. Machined out of solid aluminium, it is pressure rated to 200m.

Please note that the HDMI cable and connector set is to be ordered separately.

Vision Standalone monitor specifications:
Housing milled out of sea water resistant aluminium.
Black anodized and Teflon coated.

Rotary secure lock mechanism.

Depth rating 200m.

7" HDMI monitor.

Push buttons for screen adjustment.

Large removable sun hood.

1 Power Packs (8h battery life).

Dual O-ring sealing system.

Vision Standalone Monitor

Technical data:

Color (anodized): black

Pressure rated: 200m



Length: 240mm

Width: 165mm (with sun hood)

Height: 175mm (with ball mount)

Weight on land

(power bank incl.): 1.950gr

Weight in water

(power bank incl.): +750gr positive

www.hugyfot.com

Sealux DOM 230F



With the new Dome Port 230-F Sealux set new quality standards. The dome disc consisting of optical glass is antireflection-coated. The dome offers the highest picture quality possible for fisheye lenses with a diagonal shooting angle of 180°. The augmented dome now 230 mm guarantees more sharpness especially in the border area of the picture.

The fisheye port mount with a diameter of 250 mm is made of high-strength light alloy and with the help of adapter rings can be used for wide-angle zoom lenses, too (see lens lists).

www.sealux.de

Sea & Sea MDX-Z7/6 housing for Nikon Z7/6



Taking advantage of the Z7/6 camera's compact design and light weight, the housings has been designed accordingly to enhance these features. Compared to SLR MDX-850 camera housing, the MDX-Z7/6 is 100g/3.5oz lighter in weight on land. Weight: MDX-Z7 2700g/95.2oz (on land), MDX-D850 2800g/98.8oz (on land).

The MDX-Z7/6 is compatible with the system chart for the MDX series SLR housings. You can utilize F-mount lenses with the mount adapter FTZ and ports/gears for the MDX series housings.

An optional Optical YS Converter which converts the camera's hot-shoe TTL signal into an LED light signal is compatible with the housing. Manual strobe photography is also possible.

The Focus/Zoom dial has two gears, one for F-mount lenses with the mount adapter FTZ and the other

for Z mount lenses. The MDX-Z7 has been designed to take into consideration various Z mount lenses which will soon be available.

A window for the camera's upper control panel is also incorporated. As brightness of the camera's upper control panel has increased, the visibility is now greatly improved.

The Port Lock prevents the port from turning or loosening and the Port Lock lever is specifically located to avoid being unlocked accidentally.

The housing is equipped with a lens-lock release button which makes it possible to change lenses easily, without opening the housing.

Pulling out the Focus/Zoom Dial gives sufficient room inside the housing to easily accommodate larger diameter lenses.

The camera's diopter adjustment dial can be operated from outside the housing. This feature is useful when two or more people with different

eyesight use the housing.

All controls have luminescence stickers which glow in dark environment.

Equipped with the Optical Viewfinder 0.5x as standard. Other optional viewfinders such as Optical Viewfinder 0.66x, and 0.8x can be used. Some vignetting occurs. When the VF45 and VF180 1.2x is mounted on housing, the corners of the camera's viewfinder cannot be viewed due to vignetting.

Equipped with two sacrificial zinc diodes (one on the front case and the other on the rear) to prevent electrolysis damage.

Equipped with under guard to protect from scratch.

Specifications
MDX-Z7 Body: corrosion-resistant aluminum alloy (machined)
Grip: corrosion-resistant die-cast aluminum alloy
[Depth rating] 100m / 330ft
[Dimensions (WxHxD)] 339 x 169 x 158 mm / 13.3 x 6.7 x 6.2 inches
[Weight] Approx. 2,700g / 95oz (Housing only)

www.sea-sea.com

FIX NEO PREMIUM 4030 DX II



The “Premium” label is the FIX NEO lighting series designating the high CRI90 out of this FIX NEO Premium 4030 DX II video light.

CRI has been defined as, “The effect of a light on the color appearance of objects by comparison of the object under a reference light.” The CRI index reference light holds a score of 100, meaning the higher CRI for real lights the better. For underwater videographers, this means the NEO Premium 4030 reveals even more brilliant colors from underwater reefs scenes and magnificent animals.

120 degrees super wide beam with dome lens. The NEO Premium 4030 DX II irradiates a subject really over a wide area. The lens of dome is detachable.

Three buttons give total control over the light. Press the round button

to power the light on. Press again to cycle between 100%, 75%, 50%, and 25% power. Hold the button to turn the light off. The right and left buttons can be used to increase and decrease the light output in 1% increments. There is also a lock switch to use while traveling, and by pushing the power button at the same time as the left or right button, you can access SOS and flashing modes for emergency use.

The FR1 Remote Controller is available as a separate accessory and can control up to four NEO DX lights.

The NEO lights can be charge two ways; conveniently through the back of the light leaving the NEO sealed or by removing the battery to charge independantly. Charge one set of batteries while you’re using another set. Swap batteries between

dive to keep shooting throughout your day. The light module and battery are sealed independently and are water resistant.

The NEO Premium 4030 DX II includes a YS mount, ball mount, GoPro Mount, Loc-Line adapter, and a handle to hold the light.

Lumens: 4000

CRI: Ra90

Burn Time: 30 min.

Angle (Dome/woDome):120° / 100°

Remote Control: Yes

Charge Time: 3 hours

Swappable Battery: Yes

Battery Capacity: 3,600 mAh

Adjustment: 1% or 25% steps

Color Temperature: 5000 Kelvin

Depth Rating: 100 meters

Size: 66dia x L138mm

Weight: 435g Air

Mounts Included: Ball, Locline, YS

www.fixneo.com

SEACAM silver Panasonic GH 5



The SEACAM silver housing for the Panasonic GH 5 sets new standards in design and ergonomics. Due to the special construction, mounting the camera is especially easy.

The housing is milled out of a saltwater-proof light metal alloy twice hardened and high-value anodized.

Double sealing with seamless, high-quality precision O-rings protects all shafts and press buttons.

www.seacam.com

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Forgotten WWII Warbirds of Kwajalein Atoll

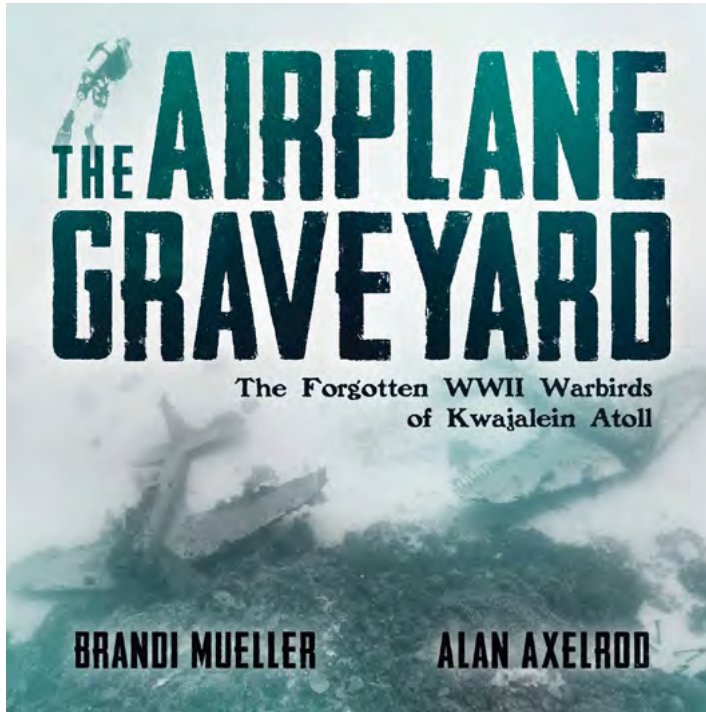
by Brandi Mueller with Alan Axelrod

At the end of WWII, around 150 American airplanes, all veterans of the Pacific war, were dumped in the lagoon of Kwajalein Atoll, Marshall Islands. A master diver and superb underwater photographer, Brandi Mueller has dived to depths of 120 feet to capture rare images of these forgotten warbirds, many looking as if they could still take off and return to the war-torn skies at any moment.

Encrusted in coral, these haunting aircraft are now home to a colorful array of tropical Pacific marine life, including fish, turtles, and even the occasional shark.

Discover the stories of these historic aircraft, their heroic role in the Pacific Theater of WWII, and how and why they ended up here.

In *The Airplane Graveyard*, Brandi takes you below the ocean's surface to discover the forgotten remains of Douglas SBD Dauntless, Vought F4U Corsair, Curtiss SB2C



Helldiver, Curtiss C-46 Commando, Grumman F4F Wildcats, Grumman TBF Avengers, and an astounding eleven PBJ-1 Mitchell Medium Bombers. The haunting images are accompanied by a text that includes a historical account of the aircraft by military historian Alan Axelrod.

Jacketed Hardcover

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www.posthillpress.com



2019 Calendar

Photographers and photojournalists Jeremy and Amanda Cuff have published a new 2019 Calendar titled "Diving Dreams".

Jeremy said, "The Diving Dreams 2019 Calendar features a variety of images, mostly from our dive travels over recent times, and includes destinations such as Ustica, Bali, Egypt, Guadalupe, Montserrat, the Maldives and the UK."

The 2019 Calendar can be obtained from Jeremy & Amanda at a cost of £9.00 including postage (within the UK).

For further information, please visit Jeremy & Amanda's website

Their website features a wide selection of photography and articles with particular emphasis on scuba diving and travel, although other topics such as abstracts and black and white photography are also included.

www.ja-universe.com

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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 >](#)



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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 >](#)



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

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OrcaTorch D900V review

by Kate Jonker

The biggest problem I had when I started out in underwater photography was getting my camera to focus. I soon realised that in order for my camera to focus, it needed to see contrast and in the often dark and dingy underwater world, there isn't always sufficient light to create enough contrast for the camera's sensor and the camera really struggles to focus.

This was easily remedied by attaching a focus light to my housing. And voilà - I pointed the light at my subject and the camera focussed quickly and accurately. Problem solved!

As divers, we are taught how to keep neatly trimmed to prevent drag and to help with air consumption. As photographers, we tend to scupper all of that by adding focus lights, strobes, snoots, snoot torches, snoot torches with multi-coloured filters, UV lights and video lights. And sometimes we dive with all of these together so as not to miss 'that' shot – or 'that' video. And then, eventually, it just gets too much. All those lights and torches get in the way, your rig becomes bulky and you start wishing you had a compact like your dive buddy.

Dive torch manufacturers have started to realise that we want less on our camera rigs but we still want to do 'all that'. Enter the new generation of underwater lighting solutions. Dive lights that double up as torches, focus lights, video lights, spot lights, UV lights and red lights. Some can do 'all that' and reduce what is attached to your housing. Diving becomes more streamlined, the task loading becomes less and suddenly underwater photography

becomes a lot more fun!

These lights are also great for compact camera owners who no longer need to invest in strobes, but can opt for a powerful dive light that they can attach to the cold shoe of their housings instead.

One such manufacturer is OrcaTorch, who produces internationally available high quality underwater lights. They advocate the spirit of "follow your heart and just do it" and as this aligns with my personal approach to underwater photography, I was keen to discover whether their OrcaTorch D900V video light could be the solution to my over-crowded camera rig.

The OrcaTorch D900V is designed especially for underwater photographers. It features four colours within one light: red (250 lumens), UV, neutral white with 120° flood beam with two strengths (2200 and 600 lumens) and cool white with an 8° spot beam, also with two strengths (820 and 250 lumens). It has a magnetic fast-charging system and can recharge within two and a half hours, reducing the need for spare batteries and chargers.

My D900V arrived securely packed in its own little carry-box. Inside was the torch head and rechargeable battery which screwed together and sealed securely with two o-rings;





***Red Roman at Steenbras River Mouth
Canon 7dmarkii, Sea & Sea Housing, Tokina 10 – 17mm fisheye lens, two Sea & Sea YS-D1 strobes with OrcaTorch D900V as focus light. F9, 1/160, ISO320***

magnetic cable and charger; ball joint mount; mounting screws and hex wrench; spare o-rings and a user manual.

The first thing that struck me was how well-made the torch was. According to OrcaTorch, it is made from aircraft grade aluminium and coated with a diamond grade, hard anodized finish to protect the torch from seawater corrosion. It is built to withstand a drop of 1m (great for clumsy people like myself) and could be taken to depths of 150m.

Weighing 430g out of the water and 215g in water, the torch felt sturdy and solid in my hands. Before I received it, I was a little worried it might be a bit too bulky, but when it arrived, I was pleasantly surprised to see how compact it was. The length is just under 130mm, with a maximum diameter of 53mm.

I was keen to find out whether the D900V would be suitable for both compact and DSLR camera owners.

My first field test was with my TG5 in an Olympus PT-058 housing. I



***Cape Triplefin rests on orange wall sponge
Olympus TG5, Olympus PT-058 housing and OrcaTorch D900V on narrow beam
F9, 1/2000, ISO250***

attached the torch directly to the cold shoe on the top of the housing using a cold shoe mount. I set my camera to microscope mode, auto white balance, ISO400 and used the exposure compensation dial to adjust exposure as required.

Switching between the flood and spot modes on the D900V was very easy. One firm, two second long press of the right hand button turns the light on in full flood mode, a second

press switches to dimmed flood mode, pressing again gives you the narrow beam on full strength, the following press dims the spot and a fifth press turns the light off. Presses of the left hand button toggles the torch between red and UV modes. Having one button for the neutral white flood and spot beams and another button for the red and UV modes allows for some creative photography techniques.

Underwater, I found the flood



Juvenile basket star. Canon 7dmarkii, Sea & Sea Housing, 60mm macro lense, InonZ240 strobe with OrcaTorch D900V on flood beam. F5.6, 1/250, ISO100

Speckled klipfish. Canon 7dmarkii, Sea & Sea Housing, 60mm macro lens, no strobe with OrcaTorch D900V on red light only F3.5, F1/125, ISO320

to be incredibly bright and even. It was great for lighting up the reef and critter hunting (and letting my buddy know where I was in less than great visibility). It was also good for video on the TG5, although you want to be less than a metre away from your subject to light it properly. As I'd purchased the TG5 for its fantastic microscope mode, I preferred the narrower, spot beam with this camera as it created a lovely concentrated beam similar to using a snoot.

On my next set of dives, I used the D900V as a focus light with my Canon 7dmarkii DSLR set up for wide angle. I attached it to the cold shoe of my

Plum anemone. Canon 7dmarkii, Sea & Sea Housing, 60mm macro lense, no strobe with OrcaTorch D900V on flood beam. F2.8, F1/250, ISO100





School of strepies at Steenbras River Mouth. Canon 7dmkii, Sea & Sea Housing, Tokina 10 – 17mm fisheye lense, two Sea & Sea YS-D1 strobes with OrcaTorch D900V as focus light. F9, 1/160, ISO320

housing, with dual Sea & Sea YS-D1 strobes on medium and short arms, attached to the handles. I had my Tokina 10 - 17mm fisheye behind a compact dome port.

The D900V worked seamlessly and as the dive was a little dark and deep, I had the light on full flood, giving me just the right amount of light for fast focussing without creating any hot spots in my images. I couldn't have been happier.

I did try my hand at video and found that the D900V was good for

subjects closer than 1m from the camera. Although the beam was bright and even, serious videographers would benefit from having two of these lights.

As most of my work involves macro photography, I was very keen to put the OrcaTorch D900V through its paces with my favourite macro set-up, my Canon 7dmkii with 60mm macro lens.

I tested the D900V as my only source of lighting. For straight forward macro photos, I found that the



Gasflame nudibranch. Canon 7dmkii, Sea & Sea Housing, 60mm macro lense, no strobe, OrcaTorch D900V on flood beam. F2.8, 1/250, ISO100

full flood beam worked really well, giving great, even lighting and true to life colours. I didn't have to colour correct in Lightroom afterwards at all. I found the best results came from ISO320, 1/160 and an open aperture of F5.6.

The spot beam is a lot of fun to use and works really well. Most of the critters where I dive are pretty large, measuring between 4 and 10cm and the beam provided an excellent snoot lighting effect. Being able to switch between the full and less-bright

narrow beam allows for leeway with depth of field. My favourite settings in this mode were 1/250 at F5.6 on ISO100.

For more creative shots, I loved using the red mode at the same time as the full spot mode as it created a red background with natural white spot in the middle in which I was able to use to highlight my subject. It was also fun and interesting to use the UV mode on some of the critters, although this did work better on the deeper, darker dives. I used an open aperture

of between F2.8 and F5.6, adjusting exposure through my shutter speed (but no lower than 1/125 as below that the images started to get motion blur) and kept to ISO320 throughout.

The OrcaTorch D900V is now a constant fixture on my rig. For macro, I tend to dive with it on my right hand strobe arm and my Inon Z240 strobe on my left hand strobe arm. When snooting, I use the D900V as a spotting light, turning it outwards, away from my strobe so that it does not affect my snooting. It is also a lot of fun to use the UV light and red light to add some colour around my snooted shots. With settings of ISO100, 1/250 and apertures of F5.6, I am still able to get a black snooted background, adding some colour to the photos as well.

In use, I found the battery life to be excellent, with the torch providing me with over two hours on full flood beam. When using the spot beam on full, I was able to get four hour-long dives out of the battery before I needed to charge it. Charging is an absolute pleasure – just allow the magnetic charger to attach to the back of the torch and let it charge.

Over the past couple of months, the OrcaTorch D900V has excelled as a spotting light on full flood beam, as a snoot torch when I've wanted to keep things simple and as a creative tool when I've felt like following my

heart and just doing it! It is a sturdy, well made light, easy to charge and easy to use. I can happily recommend it to anyone looking for a reliable light that will brighten their dives and spark their creativity!

My thanks to OrcaTorch for entrusting me with their D900V for this review.

Kate Jonker

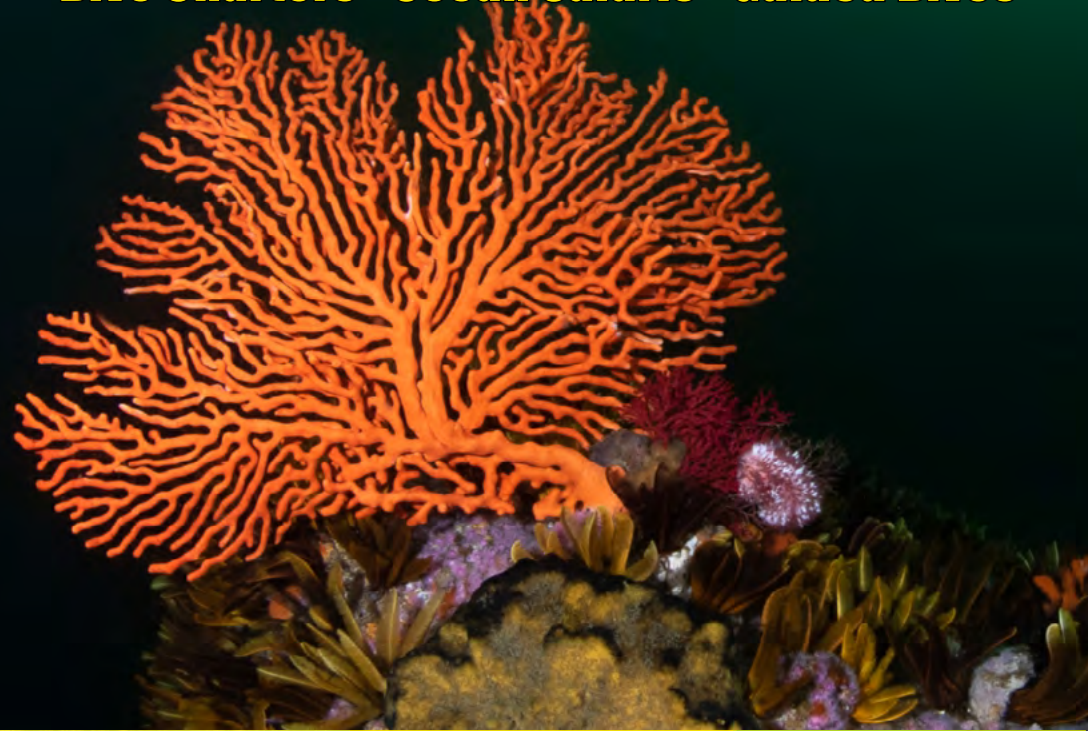
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Canon EOS R and Ikelite 200DL housing

by Phil Rudin

I first got my hands on the new Canon EOS R in late November at DEMA, the Dive & Equipment Marketing Association show held yearly in the US.

I had read quite a bit of the hype associated with the releases of both the new Canon EOS R and the Nikon Z6 & Z7 full frame mirrorless cameras along with the prognostications about how they would stack up against Sony's latest A7 III series full frame offerings.

For all three of these companies moving to a full frame mirrorless system required an entire new line of mirrorless lenses and mirrorless mount adapters to support full frame DSLR lenses already in their current lens lineups. The first mirrorless lens offerings from Canon and Nikon are not very well suited to underwater photography but loyal owners should be able to carry over current lenses using many of the ports, gears and extensions they already own.

The EOS R is Canon's first mirrorless full frame camera and it features a 30.3MP high resolution full frame CMOS sensor much like the one used in the 5D MK IV DSLR. The

EOS R includes the latest DIGIC 8 image processor and has a native ISO range from 100-40,000 with a continuous shooting speed up to 8 frames per second in S-AF and 5 frames in C-AF.

The body has UHD 4K30 video recording at 10-bit 4:2:2 output over HDMI and a dual pixel CMOS AF system with up to 5655 selectable AF points. The EOS R has an excellent 3.69m-dot OLED EVF which has 0.71x magnification. The large 3.15 inch 2.1m-dot LCD screen features a swivel design for easier use which is also front-facing for bloggers. It also has touchscreen and multi-function bar for intuitive control over shooting, playback, and menu navigation.

Other features include a single card slot for SD, SDHC & SDXC media cards, eTTL with a maximum 1/200th sec. sync speed, robust weather sealing for the new EOS R and RF lenses like the 24-105 F/4L used for this review. The EOS R features a large 54mm diameter lens mount which allows lenses with larger rear lens elements to sit closer to the



sensor than on a DSLR allowing increased corner and outer edge sharpness. The lenses can also be a bit more compact than equivalent coverage area EF-mount lenses.

Some Canon RF lenses will feature a customizable control ring which will also be available on one of the three EF-mount lens adapters, this ring can be used to control various exposure settings. With RF lenses, manual focus is being controlled electronically which allows for changing the direction of rotation for the manual focus ring to suit each photographer's needs.

The EOS R is also capable of using the large EF-mount lens lineup via three optional adapters, a simple EF to R adapter, one which supports the customizable control ring and another that features a drop-in filter mount. The EOS R has been widely



reviewed by sites like DPRReview.com and I would direct to those sites for a full camera review.

The Canon EOS R body retails for around \$2299.00/£2249.00 and is sold as a kit with the EF-EOS R mount adapter for \$2398.00/£2349.00 or with the 24-105 F/4L lens for \$3399.00/£3269.00.

For this review I provided with two lenses the Canon EF 8-15mm F/4L Fisheye USM zoom with the Canon EF-EOS R mount adapter and the Canon RF 24-105mm F/4L IS USM. The EF 8-15mm Fisheye is a highly recommended DSLR lens which was released in 2011 and the RF 24-105 F/4L is a native lens, one of the first four lenses released specifically for the EOS R mirrorless system.

While I have only tested the RF 24-105mm on the EOS R I found the build quality and image quality to be excellent. I have no doubt that this lens is capable of excellent results with the much higher resolution mirrorless sensors that are sure to come from Canon in the near future. The RF 24-105mm also has the built in image stabilization which Canon chose to omit from the first EOS R mirrorless full frame body.

I have used the EF 8-15mm Fisheye with the higher MP Sony 42MP bodies in past reviews and had excellent results. Most unique about the EF 8-15mm Fisheye is that it works like two lenses in one package. The 8mm end of the lens is a full frame circular fisheye while the 15mm end of the lens is a conventional fisheye on full frame. This lens focuses to 15cm (5.91 inches) with a maximum reproduction ratio of 1:3 which makes it excellent for close



focus wide angle with a small dome port like the Ikelite 8 inch compact.

Most of the focal lengths between the 8mm and 15mm ends of the this lens will be cropped off on the top and bottom of the frame as the lens is zoomed. If you would like to read my full review for the 8-15mm fisheye zoom it can be found in UWP issue #93. At this time like the Nikon Z6 & Z7 the EOS R is living in a parallel universe between the 60+ EF and EF-S lenses which are adaptable with the EF-EOS R mount and the four new RF lenses none of which are really well suited to underwater work.

The Canon RF 24-105mm F/4L lens retails for \$1099.00/£1119.00 the EF-EOS-R mount adapter retails for \$199.00/£199.00 and the EF 8-15mm F/4L Fisheye retails for \$1249.00/£1149.00.

Ikelite 200DL Canon EOS R Housing

Ikelite Underwater Systems is a USA based company which has expanded its distribution network to cover most areas of the world during its fifty plus years in business. Ikelite has a large and loyal customer base built on a foundation of excellent customer support and product reliability. During DEMA in November 2018 Ikelite introduced a new 200DL housing for the recently released Canon EOS R Full Frame mirrorless camera.

The newly released Ikelite 200DL housings future the greatly improved “Dry Lock” port mounting system. New lighter ports are also being added to the product line and a lighter and thinner back plate is being developed for shallow water

applications like surf photography.

The 200DL housing is the same size used for all of the current Canon DSLR’S, Nikon DSLR’S, Panasonic DC-G/GH systems and the Sony A7 II, A7 III and A9 series cameras. Please don’t get the impression that because all of these camera systems use the same 200DL size that modifications to the 200DL are not on going.

I will point out just a few of the improvements I noticed on the EOS R housing when I first handled it at DEMA. The backplate has been shaved down so that it fits flush to the front half of the housing, on the inside of the backplate the area around the cameras viewfinder has been recessed so that the cameras eyepiece comes closer to the rear housing viewfinder allowing a better view into the viewfinder, the black pad on the

rear plate which holds the camera in place has been moved lower so that it presses against the camera tray instead of the camera and drainage holes have been added to the housing grips so that the water runs out as soon as you finish the dive and not on the floor in your home or hotel room. Improvements to control ergonomics have also been made along with port and gear upgrades.

The Ikelite 200DL housing for Canon EOS R features the signature opaque light gray ABS-PC polycarbonate material for the front section of the housing with a transparent DSLR style polycarbonate housing back plate. The light gray housing color matches the Ikelite DS strobe line creating an attractive system package. The light gray housing color also shades the camera and provides extra protection from the sun during long boat rides.

The EOS R production housing supports Canon e-TTL on the EOS R camera when paired with Ikelite DS series TTL strobes. My prototype housing was only wired for shooting with production Ikelite DS strobes firing in manual mode. I have extensive past experience using Ikelite TTL in other Ikelite housings and the electronics have always been excellent.

The housing can be purchased with a manual sync adapter or the optional CT2K Canon e-TTL kit with Hotshoe. The CT2K provides integrated TTL encoding specific to each camera model and tuned to the Canon EOS R exposure protocol. The TTL converter fits under the camera mounting tray and is a plug and shoot unit which requires no maintenance or additional battery.

Exposure compensation in TTL mode is supported using the cameras built-in controls which can be accessed in several ways and assigned to



Florida Freshwater Turtle, Ginnie Springs, Florida, Canon EOS R camera, Canon 8-15mm F/4L Fisheye with EOS R lens adapter at 15mm, two Ikelite DS-161 Strobes, 8 inch compact port, ISO-400, F/13, 1/200th sec

different function buttons to suit the users needs. Other TTL strobes from Ikelite, Inon, Sea & Sea and others can also be used with Ikelite electronic sync connections but only in manual exposure modes.

The housing includes a base plate with left-hand quick release rubberized handle, mounting threads for an optional right handle, port opening cover which locks in place, a waterproof bulkhead cap to protect the strobe cord socket when not in

use, silicone O-ring lube and a two year limited warranty. A verity of optional ports, extensions and gears are available which cover lenses form Canon and third party manufactures. The ikelite.com web site has a complete lens chart which is continually being updated as new lenses are released.

My prototype housing included the optional right-hand quick release handle, vacuum pump with gauge and cable grip. The housing was also equipped with two Ikelite accessories I had not used

before, the straight magnified optical viewfinder and the new trim weight system for DSLR and mirrorless housings.

The trim weight system addresses an issue I pointed out in my review of Ikelite's DL200/Sony A7R III housing in UWP issue #103 where the 200DL housing with the eight inch dome port would float in both salt water and fresh water. The Trim Weight System mounts to the tripod threads on the bottom of the housing and extends forward under the port. You then mount any hard or soft weight (not included) up to five pounds using an elastic velcro strap to offset the buoyancy of the dome.

I used a three pound weight in salt water and it allowed me to put the housing on the bottom without having it float away. The trim weight system weights 273g (9.6oz) and can easily be packed in checked or carry-on luggage.

Field Testing the Ikelite 200DL/EOS R Housing

For the Canon EF 8-15mm F/4L Fisheye zoom I used the Dry Lock eight inch Compact acrylic port (#75344) and the 28mm lens extension (#75028 and gear 5509.30). This lens can also be used with the full eight inch dome (#75340) and 20mm extension (#75020) or without

the extension. The difference between these ports is that the 8 inch compact dome port takes a cross section of the top of the full 8 inch port so that it retains the same curvature while reducing the diameter to under six inches.

This was my first time using the Compact port and I wanted to compare the results with the past images I had taken using the 8-15 fisheye and full 8 inch port. After my side by side comparison of images taken with the compact port I was hard pressed to see any image quality differences when shooting within my normal F/stop range.

At the circular fisheye 8mm end of the lens both port need to have the shades removed to prevent vignetting, this is done by loosening three small Allen screws on the port and pulling it off. Once the port shade is removed the neoprene port cover which I always leave on until I am in the water can still be used to protect the dome.

With the compact port I did not need the trim weights because the housing was very well balanced for my liking. With the full eight inch dome port I would highly recommend the trim weight system for best balance in both salt and fresh water. The 8-15mm fisheye has excellent depth of field from F/8 on a full frame sensor and I control ambient exposure using shutter speed



Tanic water from the Santa Fe River flows over Devil's Ear cave entrance at Ginnie Springs, Florida, Canon EOS R camera, Canon 8-15mm F/4L Fisheye with EOS R lens adapter at 8mm, 8 inch compact port, ISO-400, F/8, 1/320th sec, no strobes

and ISO to balance strobe lighting. I find the best corner sharpness with wide, super wide and fisheye lenses in the F/13 to F/20 range on full frame but I was not disappointed with wider aperture settings down to F/8.

Large acrylic dome ports tend to reflect the etchings on the front of the lens back onto the sensor in overhead sun light when you are near the surface. With coated optical glass ports this is much less of an issue. With Ikelite's large 8 inch port at or near the surface in bright overhead

sunlight I have had reflections onto the sensor in the past but with the new compact port this was not an issue for me.

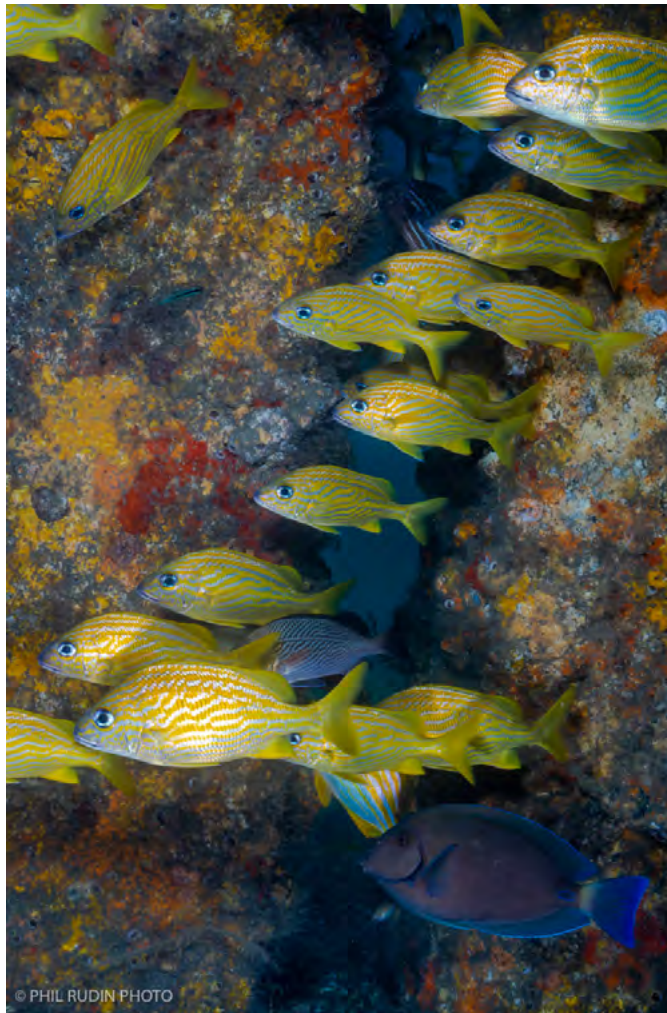
The RF 24-105mm F4L lens requires the full 8 inch port (#75340) and you have two port extension options. Extensions (75020 and 75042) combined give the superior edge sharpness at a total length of 62mm or the 50mm (#75050) extension can be used. Both combinations require zoom gear (#5509.32). Again I would be

recommending the trim weight system with this lens/port combination for best results.

With the port and two extension 62mm combination I had an issue with focusing beyond about 60mm. At the 24mm end the port works well and the images are crisp and sharp. As the lens is zoomed out it begins to hunt and then to not focus at all. This is a common issue with lenses that have minimum focus distance beyond about 30cm (1ft). The RF 24-105mm minimum focus distance is around 45cm (1.48 ft) so the lens is trying to focus outside the virtual image created by the 8 inch dome port by around 60mm. As Ikelite indicates on their website a +4 closeup lens is recommended to resolve this issue and allows the lens to zoom through the entire range. Since I don't own the +4 lens I was unable to properly test the longer end of this lens. I hope to have a chance to fully test this lens in future reviews of Canon mirrorless cameras.

Both lenses are mounted from the front of the Ikelite housing so the camera first needs to be installed in the housing. Mount the assembled camera (formatted card, fresh battery, etc.) onto the camera tray using the simple tripod screw and slide the camera into the front half of the housing. Be aware that the camera tray has no lock so the best way to prevent the camera from moving is to point the front of the housing with the port side down until the housing is fully sealed. The hotshoe then needs to be pushed ALL the way forward into the camera hotshoe, next align the control levels over the controls on the camera.

Once this is done the back plate is mounted and the three lid-snaps can be secured using even pressure on all three to properly seal the rear O-ring. After the housing is closed the camera tray will not move and the lens can be mounted from the front



Schooling French Grunts, Blue Heron Bridge, Riviera Beach, Florida, Canon EOS R, Canon 24-105mm at 61mm, two Ikelite DS-161 Strobes, ISO-400, F/16, 1/200th sec

port opening. I keep the front cap on the camera until I am ready to mount the lens to prevent the rather large sensor from collecting any dust bunnies.

Ikelite has developed an excellent system for mounting lens gears. Rather than mounting the



Schooling Atlantic Spadefish, Blue Heron Bridge, Riviera Beach, Florida, Canon EOS R, Canon 24-105mm at 24mm, two Ikelite DS-161 Strobes, ISO-400, F/20, 1/200th sec

gears directly to the lens they have taken a different approach. Ikelite provides a port cover, zoom/focus gear retainer and gear retainer tool with the DL200 housings. Using the gear retainer tool remove the gear retaining ring turning counter clockwise, then

remove the port cap.

The next step is to install the zoom/focus gear into the port opening with the gear teeth towards the inside of the housing. Make sure that the teeth align with the teeth on the zoom/focus control wheel which is operated from the left hand side of the housing. Then replace the threaded retainer ring with the tool turning clockwise until snug. Now the gear is captured in place and won't be miss aligned while the lens is mounted to the camera body. Just remove the camera and lens caps, push the lens into place through the zoom gear and lock into place on the camera body. Once this is done test to be sure the lens is zooming or focusing correctly.

I have used this gear system on several of the Ikelite housings and it is a simple and very effective way to keep the gears aligned on the lenses with a minimum of frustration. The port is then installed over the lens and pushed into place over the O-ring on the front port mount. Three thumbscrews are provided to hold the port in place on the front port mount.

To be clear the Dry Lock ports have no O-ring, the O-ring is located on the housing port mount. In previous Ikelite reviews I have found the Dry Lock port system to be far superior to Ikelite's old FL port system which secured the ports with four locks on the front of the housing.



Little Devil at Ginnie Springs, Florida, Canon EOS R camera, Canon 8-15mm F/4L Fisheye with EOS R lens adapter at 10mm (notice how the edges of the frame are cut off using 10mm), 8 inch compact port, Ikelite DS-161 Strobes, ISO-400, F/16, 1/200th sec

The housing also comes with a vacuum valve already installed and I recommend purchasing the optional vacuum pump and gauge (\$60.00 US) to add an additional layer of protection from flood damage to the system. When the housing is fully assembled and everything has been tested including firing the strobes simply attach the pump to the valve and pull the vacuum.

For this review I used two



The Author (foreground) with Dive Buddy Christian at Ginnie Springs, Florida, Canon EOS R camera, Canon 8-15mm F/4L Fisheye with EOS R lens adapter at 8mm, 8 inch compact port, Ikelite DS-161 Strobes, ISO-800, F/22, 1/200th sec

Ikelite DS-161 strobes with four Ikelite seven inch double ball arms with clamps and an Ikelite dual sync cord. My prototype housing was not equipped with TTL circuitry so I was

shooting with a manual sync cord and adjusting strobe power levels on the fly using the 10 1/2 stop manual control increments. Since this is my normal shooting style with all strobes



Under the Blue Heron Bridge, Riviera Beach, Florida, Canon EOS R, Canon 24-105mm at 24mm, two Ikelite DS-161 Strobes, ISO-400, F/16, 1/200th sec

I did not miss the TTL. I have found Ikelite's DS-161 strobes to be among the best in the industry and they did not disappoint when used with the Canon EOS R camera and lenses. My full review for the Ikelite DS-161 strobes is in UWP issue #81.

The controls on the DL200 housing are ergonomic and intuitive making it easy to use the rear thumb focus level which I prefer in most cases. While testing this system I shot using the LCD screen and for the first time the optional straight optical viewfinder.

Auto focus for the most part was fast and accurate in AF-S using both the LCD and the accessory viewfinder. I did not find the AF-C on the EOS R to be at all useful underwater an issue I hope Canon will be able to address through a firmware upgrade.

I preferred using the EOS R's very large and excellent electronic viewfinder with the accessory optical viewfinder both for wide lenses and closeups. I also found it difficult to toggle between the EVF and LCD because no function button is located on the body for that purpose. Canon instead relies on the sensor under the viewfinder to switch between EVF and LCD something that does not work inside any underwater housing.

The housing ships with a useful pickup finder but it does not do justice to the outstanding EVF found on the EOS R. I would recommend adding an optional Ikelite 45 degree or straight optical viewfinder if you intend to use the EVF frequently.

The zoom/focus control on this housing is smooth and easy to reach with the left forefinger. I controlled many settings like ISO, focus area, frame rate, focus point array and more from the large control display on the accessed through the Info button on the rear of the camera. This function can also be assigned to other buttons on the camera body.

Changes in the control display are very easy to see and navigate through using the arrow pad buttons on the rear of the housing. For shutter

speed and aperture control I used the front and rear control wheels on the housing. A complete DL200 housing manual describing all of the controls can be found on the Ikelite.com web site in the housing information area.

Since I am not much of a video shooter you will need to look elsewhere for reviews of video performance using EOS R. The customizable multi-function bar located at the top right of the EVF is not supported by this or any of the other EOS R housings I have seen. This function is a bit like trying to support a touch screen from inside a housing. All of the functions accessed by the multi-function bar can also be accessed via other controls supported by the housing.

The Ikelite DL200 Canon EOS R housings retail in the US for \$1695.00/£1650.00, the eight inch DL port is \$450.00/£460.00 and the DL eight inch compact port \$350.00/£360.00 port extensions are in the \$200.00/£210.00 to \$250.00/£285.00 range, with gears in the \$25.00/£28.00 to \$35.00/£33.00 range depending on the lens being used. The Ikelite DL200 system is attractively priced and is excellent value.

Phil Rudin

www.instagram.com/philrudinphotography

www.ikelite.com



www.uwpmag.com

Don't settle for 2nd best



Film - No Filter No
White Balance



Digital - No Filter Manual
White Balance



Magic Filter Manual
White Balance

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

www.magic-filters.com

Nauticam WACP tech notes & observations

by Kevin Palmer

Since underwater photography went digital so many years ago, there has been a love/hate relationship with wide angle rectilinear lenses behind domes – particularly with full frame cameras. A lot of the WA lenses from the film days just did not perform that well behind a dome port with digital sensors. Edges and corners were mushy and distorted and largely unusable unless in blue water. People resorted to diopters to reduce this effect (many manufactures of housings still frequently recommend these today), but diopters impart pin cushion distortion, reduce the angle of coverage and generally add a piece of glass that lessens optimal quality.

The other solution seemed to be ever increasing diameters of dome ports to try and replicate “in air” performance. The “super-dome” craze lead to people using (or at least claiming to use) domes of 12” diameter and larger. This helped image quality somewhat and bragging rights at the bar, but were extremely awkward to dive and travel with.

The introduction of newer lenses designed for digital sensors

did offer improvement – particularly with APS-C cameras where the excellent Tokina 10-17 fisheye zoom revolutionized wide angle shooting options and even the APS-C wide rectilinear zooms from Nikon and Canon made progress towards a little better behind-dome performance. But as more people migrated to Full frame cameras, many were struck by how limiting a fixed fisheye lens was. And equally frustrating was the 100 degree angle of view wide angle lens like the 16-35 zooms that produced soft corners and edges that still only look good in blue water.

Current rectilinear wide angle full frame lenses have to be shot at a minimum of f8 to produce marginal results at the edges in at least a 230mm dome. Ideally, even smaller apertures should be applied to improve things, but this often isn't

The Nauticam WACP is a much smaller form factor than a 230mm wide angle dome.

Turtle ISO 125 1/125 f6.3





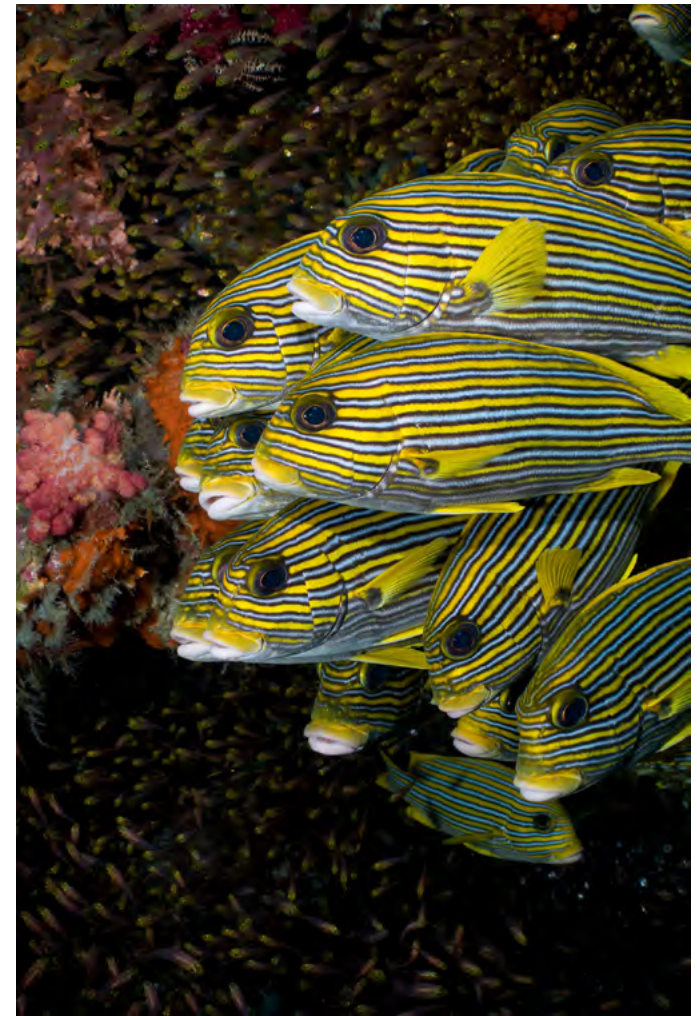
ISO 250 1/100 f5.6

practical and edges will never be truly “sharp”. Also important: what about the range between 180 degree fisheye and 100 degrees? There are minimal options that really work, though the \$3000 Canon 11-24 is a little improvement but still falls short of ideal. Surely there had to be a solution.

Enter the Nauticam WACP (Wide Angle Conversion Port). “Game Changing” gets tossed around a lot these days, but most of the time the described item falls pretty far short of my definition of that. But after a few weeks in the water with one

on my Nauticam NA-D850 housing, it is a term I will readily apply. I know already it will change the way I shoot wide angle forever.

The WACP is water contact lens – designed from the start to be used only underwater. For those of you old enough: Remember how crispy from edge to edge the Nikonos 15mm or RS 13mm lenses were? Those were that sharp because Nikon designed them to be water-contact lenses – and they could be relatively small! This was because every element in the lens was designed, front to



ISO 250 1/250 f9

back, to work together while shooting underwater. People use large domes on their rectilinear lenses to compensate for not being designed specifically for a particular lens and its minimum focus point. This is part of the secret, but there is a lot more going on with the WACP. Thanks to another 25 years of software and optics evolution, the WACP does things Nikon couldn't have imagined back in the



ISO 160 1/80 f8

Nikonos days.

Picture yourself going on a dive to shoot a stunning reef filled with Sweet Lips. You need to get close and wide. 130 degrees of coverage is about 14-15mm on an APS-C Tokina 10-17 zoom – kind of the sweet spot – super wide, but not excessive distortion. Now imagine it is late in the day and you want some ambient light, so you'd like to shoot at f4.5 or f5.6 – you would never do that with an ordinary lens port, but you know this isn't ordinary. You nail it – and the image is wider and the corners are sharper than that \$3000 11-24 lens

is when shot at F11 behind a super dome. Now you want to just frame the faces of seven or eight sweet lips – but you can't move closer – you will spook them. So you just zoom in, frame the prettiest fish, take the shot. How cool is that.

How big is the dome on the front of the WACP? Less than 6.5" including the shade. Because any lens you shoot behind the WACP will allow you to focus down to the glass, you can also shoot amazing close focus wide angle with this arrangement. There are dozens of lenses being tested for performance



ISO 160 1/80 f11

behind the WACP and there will no doubt be dozens more – but so far the selection is great and growing rapidly. What lens did I shoot these images with? A discontinued Nikon 28-70 3.5-4.5. Cost: \$100, and thanks to the WACP, it outperformed any lens you can put behind a traditional dome in most categories, regardless of price.

In my book, this is the definition of a game changer. I was able to shoot in ways I never thought possible and got better results than I would have any other way. And just as important – it is incredibly fun to use – I kept thinking of things to try.

You have to reprogram your brain to what is possible, as it is a whole new ballgame. By the end of my trial I literally thought to myself "I will never shoot my 16-35 underwater again". I also didn't pick up my fisheye for two weeks...

It is important to note that although full frame shooters have had the most grievances in regard to wide angle image quality, APS-C DSLR shooters and even some mirrorless cameras can benefit as well with all the same parameters carrying over – only the focal lengths of the ideal lenses would change.



ISO 250 1/200 f8

If you have read this far, your skeptical brain is probably saying “what’s the catch – there is always a catch”. For most people there will be two primary considerations. One is the weight – there is a lot of optical glass, so it is a bit hefty in air – about 9lbs. But this may be less of a factor for many people – the WACP comes with a protective case and it is fine to throw in checked luggage as I did. I traveled to Sarong Indonesia and back with no overweight. If you eliminate some of the other redundant gear, it might be a wash. And most places we travel these days whether, land

based or liveaboard, there is always some smiling staff member to carry and handle your camera for if you are not keen on carrying it. Once you are in the water – you can make your rig as weightless as you prefer. I could balance mine on one finger.

At first glance, the second concern could be price at about \$3900 right now. But if you think of the cost of a 230mm dome (\$1900) and wide angle lenses (\$1100-\$3000) and what you gain in the process – it actually seems very reasonable.

Pros:
Much wider angle of coverage than



ISO 160 1/160 f8

any other rectilinear option – 130 degrees

Better, sharper detail on the edges at larger apertures

Sharper in the center than any other zoom behind a dome at the same focal length

Closer Focus

Smaller Dome

Greater zoom range than other wide angle lenses available

The flexibility to shoot many different lenses with different extensions

The WACP is not the perfect set up for every photographer, but there will be a whole lot of people who will

be taking more great pictures more often when they discover this new piece of gear. For help in figuring out how you might benefit from the WACP, give us a call or shoot us an email. We will be happy get into the details.

Kevin Palmer
www.reefphoto.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

Blackwater bounty

by Mike Bartick

It's late in the evening and with hardly any moon to speak of, but instead of thinking about sleep, we're thinking about diving, not just any dive though, blackwater diving.

Jumping into the open ocean at night certainly isn't for everyone. Just the mere thought of diving in open ocean can sometimes create a bit of anxiety with some divers, adding in the caveat of diving in the open ocean at night and it positively spooks them.

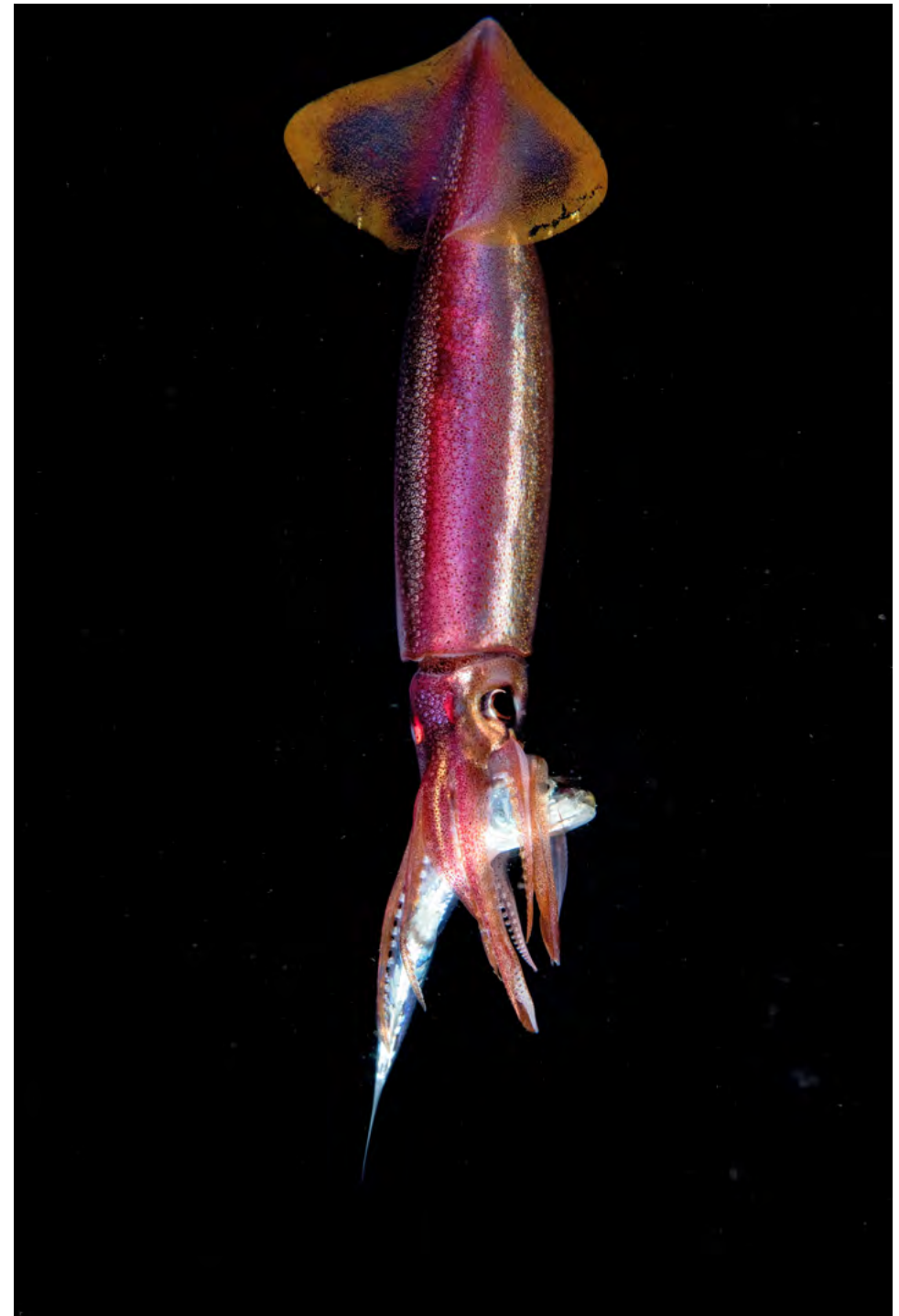
Blackwater diving is not your typical night dive and were not heading to the bottom to explore the sand. Infact the bottom is the last place you would want to find yourself on an open ocean dive like this, exploring however is what BW diving IS all about.

Blackwater diving is an advanced style of diving that is done well off shore, over deep water and away from any structure. The target subjects on a dive like this are planktons. Each evening as the sun sets, the planets largest animal migration begins as planktons move up from the depths to disperse and feed. This vertical migration carries with it many incredible ocean oddities that would never be seen on a typical night dive. By inserting ourselves directly into the food chain and with a little luck,

we might be able to see some of this action and hopefully capture a few unique frames. Vertical migration is one of the the buzz word's enthusiasts involved in BW diving will use to describe the upwards movement of planktons from the depths to the shallows. The deeper the water, the stranger the subject's, is one school of thought on this. The truth of the matter is, if you dont get out there and explore, you will for sure, not see anything.

BW diving takes a bit of practice and requires a little dedication. Late nights are the norm so resting during the daylight hours becomes a part of the daily routine. Because the experience is so unique, new dive skills must be learned in addition to learning how to shoot in this

Hunting squid- Squids will grab the stunned fish right from the ink cloud and for a few moments pause. Its at this time that you can grab a quick photo but be ready for it. Once the strobes start flashing, the squids will quickly dart away, catch and all. Nikon D500, Sea&Sea housing, 60mm lens, 1/320th @ F22 with ISO400



sometime turbid environment. The other skill that must be learned is how to hunt for your subjects while drifting in the black night sea with nothing more than a torch to light your way. After a few BW dives though you will feel it all coming together and the whole routine becomes second nature. Soon, regular day dive's will seem like fluff and everything, including the computer you use will be adapted for BW diving, at least that's what happened with me.

The equipment needed to do a BW dive safely can be organized in several ways. We've developed a rather extravagant "Downline" set up over time that offers a great visual reference, both above and below the water line. Our downline has a lit orange buoy on the top with a 33 meter weighted rope. The rope has several high powered lights attached to it that helps to attract the planktons and allows the divers to free swim at any depth, without being tethered.

Three basic tips for Blackwater diving:

Dive skills

Safety first for BW diving. Be sure to have great buoyancy skills before venturing out. On the dive move slowly and try not to fin too much as it creates a pressure wave. Each movement creates



A larval sole shot in open ocean. Notice the eyes on this sole compared to the first one. They have not migrated as of yet indicating that this sole still has some time before it settles to the sand. In this open ocean world, transparency rules the night or so it seems.

Shooting these guys can get tricky as the water is often turbid. Strobe's, angled in and nearness to your subject work well. Strobes facing slightly outward also helps but can leave your subject in the shadow if too close.

Nikon D500, Sea & Sea housing, 60mm lens, 1/200th @ F16 with ISO320



During the cooler water temp. months in Anilao (January-March) we are treated to a plethora of jellyfish and salp chain's. After seeing a small larval octopus on a salp chain i was intrigued. I had never seen this before and began researching the relationship between the two. Little did i know at that time that this wasn't an octopus at all, but Male paper Nautilus, or A. hians. It turns out, the male paper nautilus (5-7mm) do not produce a shell, this is exclusively for the female. The female A.hians will trap air in her shell at the surface and use it for buoyancy, coming to the surface in the evening when it is safe. The males also travel up to shallow waters using the salps, mollusks or anything else they can for protection from predators in hopes of meeting a female.

Blanket octopus- Talk about an insane photo op!, again this would never be seen near shore or on a regular night dive. The blanket octopus uses its webbing to trap the nautilus and other ocean going subjects. This one, photographed at 30 meters danced a bit for me then dashed away and into the dark. Again, extreme sexual dimorphism occurs between the male and female. The male is measured in centimeters as the female can be measured in meters. The webbing on their arms can also be casted off when they feel threatened, in an attempt to escape and evade by diverting the predators attention.



turbulence and many of the delicate creatures could be destroyed outright or sent spinning away, curl up or dash off.

Photo skills

Much of what will be seen is very small. I suggest using a 60mm macro lens on an APSC camera, 100/105mm on a full frame and without diopters. Float arms and a clip to secure your camera to your BC just in case you need both hands. Using a soft focus light trained over your lens port for fast focus and using strobe angles that will help to eliminate backscatter.

The hunt

Hunting for your subjects in the water column during your BW dive is a skill that most of us don't have but can develop pretty quickly. Using a torch with a tight beam will allow for better water penetration even if the water is turbid.

Jump Settings:

ISO 400
F22
1/200

Compact shooters:

ISO 400
F5
1/200-500



Its not always the subject that gets excited on a blackwater dive. I was very lucky to have this subject swim straight at my lens and pause long enough for me to capture something a little more special than an I.D. photo. Shooting at a higher F-stop will help to knock down the reflectivity of your subject and allow for more control over your exposures, revealing the colorful details. Nikon D500, Sea & Sea housing, 60mm lens, 1/200th @ F16 with ISO320

Soapfish in their adult phase aren't all that attractive but the larval soapfish is quite amazing. With a small body, extremely long pennants and gold/green pectoral fins, they are fast swimmers that can change directions quickly and often. I prefer a 60mm lens to help track my subject through the viewfinder and offers a slightly wider angle of view when close to the subject. Nikon D500, Sea & Sea housing, 60mm lens, 1/200th @ F16 with ISO320



I prefer to shoot at a higher ISO and higher f-stops to gain better depth of field on the subjects. If my subject is reflective, i'll roll the f-stop up to a higher number. This helps to bring the exposures back to where i want them and if i need more light, ill roll it back down. Unlike standard macro shooting, depth of field isn't as much of a worry as is overexposures. Dont get too hung up on the aperture settings, just use it like a dimmer switch.

Your camera will be able to pick up the little details and colorations that can only be revealed in post so exposures are everything.

Backscatter is also inevitable, again, dont get too hung up on backscatter unless its critical and

destructive to your image. Having some backscatter in the image gives the subject a sense of space in my opinion, although your's may be different.

Blackwater diving offers a bounty of new and unique subject/photo ops for the adventurous photographer. Concentrate on your

dive skills and the rest will quickly fall into place as you gain a comfort level in the open ocean. Look for the small subjects first and if something a bit larger appears, do your best to capture the action. Remember to save some air for the surface too, flying fish and other incredible larval fish are often times in the last few meters.

Have fun and enjoy the adventure!

Please visit the Blackwater photo group on facebook for more images from around the world.

Mike Bartick
www.saltwaterphoto.com
www.diveCBR.com



Blackwater Photo Safari Gathering

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Book Review

Lights! Camera! Sub Action!

by Mike Seares

by Peter Rowlands

Lights! Camera! Sub Action! is an engaging read about how an early enthusiasm for scuba diving combined with determination and fortuitous encounters led to a longterm involvement in what was to be the emergence of real underwater photography in the movie industry.

When I say real I mean not those which are almost a parody shot through a glass bottom bucket of underwater scenery which almost always included a shark and a menacing sound score. This is an account of how talented people from the diving world were embraced into the big scale world of cinema movies and how, perhaps without realising it, they changed the way producers and directors looked upon underwater imagery.

The journey begins in the mid 70s when scuba and certainly underwater photography were still in their infancy and very much minority sports but, as so many from this era will testify, it had an appeal which was vice-like and life changing to those who succumbed to its charms. Mike was one such soul and as I read of his path, the people and the places it struck me that we had never met for my journey too began at the same time albeit it ending in another branch of underwater photography. Such is life.

I won't spoil Lights! Camera! Sub action! with detail suffice it to say it is a well written engaging

read where the big break came with the Nic Roeg's Castaway working with underwater cameraman Mike Valentine on underwater scenes shot in the Seychelles and went on to an involvement in blockbuster movies and commercials which had underwater sections in their script. On the way were more technical and less glamorous expeditions to the Blue Holes and HMS Repulse and Prince of Wales as well as some input into the development of rebreathers.

Finally there is a very useful section for those who want to follow in Mike's footsteps with details of how to get into the industry.

Lights! Camera! Sub Action! is a great read and is available as follows:

Kindle/Kobo - £5.99

Apple Books - £7.99

Paperback - £11.99

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www.mikesearesbooks.com



<https://itunes.apple.com/gb/book/lights-camera-sub-action/id1439604628?mt=11>

Guidelines for contributors

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

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

Uw photo techniques - Balanced light, composition, etc

Locations - Photo friendly dive sites, countries or liveaboards,

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

Equipment reviews - Detailed appraisals of the latest equipment

Personalities - Interviews/features about leading underwater photographers

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

How to submit articles

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

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

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

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

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

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

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