

Text and photos by John A. Ares, Sheryl Checkman, Larry Cohen, Anita George-Ares, Kate Jonker, Matthew Meier, Brandi Mueller, Gary Rose, Michael Rothschild and Olga Torrey

We asked our contributors what their favorite images were, captured using ambient light only, and they came back with a diverse selection of photos featuring sublime underwater scenes from a variety of dives on reefs and wrecks, in caverns and cenotes, as well as with interactions with marine life. Here, *X-Ray Mag* contributors share their favorite images from the tropical waters of French Polynesia, Micronesia, Papua New Guinea, the Philippines, the Egyptian Red Sea, Mozambique, Bonaire, the Bahamas, Mexico and the Galapagos Islands, to the temperate waters of South Africa, Newfoundland in Canada, the US East Coast and California.

Contributors' Picks

Ambient Light

Underwater Photography



Using Ambient Light in UW photos

Text and photos by Kate Jonker

When I first began my journey as an underwater photographer, I spent a year using the natural light from the sun as my sole light source. I soon realised that ambient light can be a powerful tool to create stunning and dramatic images.

One of my absolute favourite places to experiment with ambient light is in kelp forests. These underwater forests are a treasure trove of natural light that filters through the leaves and creates a

beautifully natural effect. (See Photo 1) Another great way to harness the power of ambient light is during the golden hour. This special time just before sunset or just after sunrise creates warm and soft lighting that can transform your images with a beautiful, dappled effect (Photo 2). It's like adding a golden touch to your photographs.

St John's Caves in the Red Sea offer yet another perfect opportunity to use ambient light (Photo 3). The dark and mysterious caves create a moody atmosphere, and the beams of light that filter through the cracks in the roof

are simply breath-taking.

Lastly, using ambient light to create sun rays is one of my favourite techniques in underwater photography. The best time to capture these stunning rays of light is when the sea is calm and flat. The result is a dramatic and ethereal atmosphere that perfectly captures the beauty of the underwater world (Photo 4 on previous page).

I have learnt that ambient light can

be a powerful way to create stunning and dramatic images underwater. By understanding how to use ambient light in different underwater environments, photographers can capture the magic and beauty of the ocean in a truly unique and transformative way. Visit: katejonker.com

Photo 1. (above) Using ambient light in kelp forests adds a beautifully natural effect to your images. A-Frame dive site, Simon's Town, South Africa. Gear: Canon Powershot S95 camera, Ikelite housing. Exposure: ISO 100, f/8, 1/60s

Photo 2. (left) Taking photos during the golden hour can add a warm glow to your images. Shag Rock, Northern Red Sea, Egypt. Gear: Canon Powershot S95 camera, Ikelite housing. Exposure: ISO 100, f/8, 1/60s

Photo 3. (top left) Using light beams that filter through the roofs of caves can create a stunning effect. St John's Caves, Southern Red Sea, Egypt. Gear: Canon EOS 7D Mark II camera, Tokina 10-17mm fisheye lens, Sea&Sea housing. Exposure: ISO 500, f/8, 1/50s

Photo 4. (previous page) Capturing the sun's rays when the surface of the water is calm and flat can add a whole new dimension to your images. Long Beach, Simon's Town, South Africa. Gear: Canon EOS 7D Mark II camera, Tokina 10-17mm fisheye lens, Sea&Sea housing. Exposure: ISO 160, f/11, 1/200s



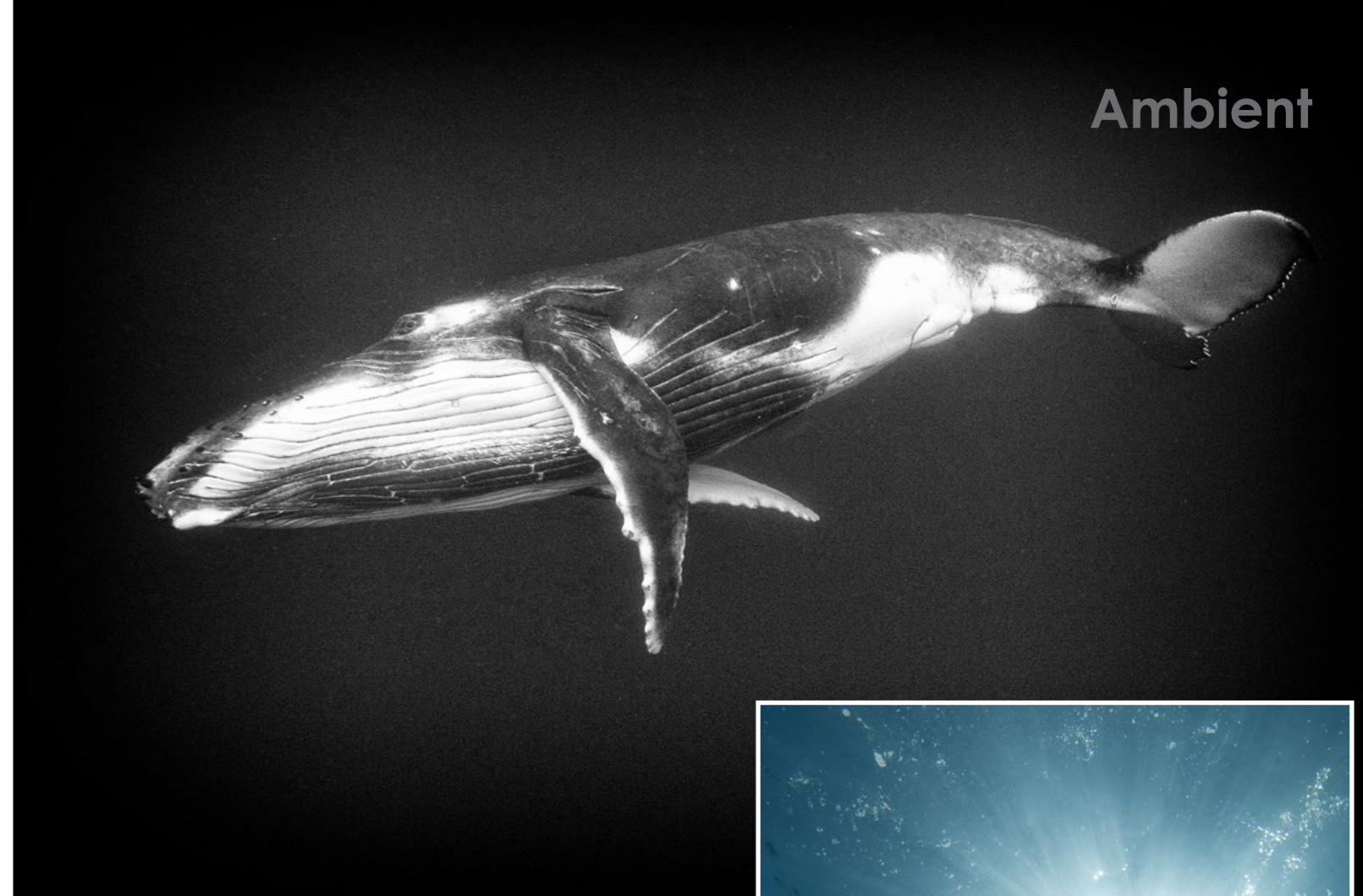


Photo 3. (top left) Whale shark with fisherman, Oslob, Cebu Island, Philippines. Gear: Canon 10D camera, Canon EF-S 10-18mm f/4.5-5.6 IS STM lens at 10mm, Ikelite housing, available light. Exposure: ISO 100, f/8, 1/500s; Photo 4. (top right) Humpback whale, Moorea, French Polynesia. Gear: Canon Rebel SL1 camera, Canon EF-S 10-18mm f/4.5-5.6 IS STM lens at 10mm, Ikelite housing, available light. Exposure: ISO 3200, f/14, 1/320s

Small to Gigantic Beings

Text and photos by John A. Ares

Many photos of mine recently published in this *Contributors' Picks* article series were taken with ambient light, but the following have not been seen before in this magazine.

Photo 1 shows a backlit California sea lion playing at Los Islotes, La Paz, Mexico. This was part of a series of images. As I rotated in the water, the backlit image required that I point the strobes away from the subject. Strobes would have produced a photo with an entirely different character.

The shrimp in Photo 2 was actually shot in an aquarium in San Antonio, Texas. The light was at the top and slightly behind the subject. It worked well with the semi-translucent shrimp. The photo was taken with a point-and-shoot

camera set on "macro," held close to the glass to prevent reflections.

The split shot of the whale shark in Photo 3 was taken in Oslob on Cebu Island in the Philippines. The whale sharks there were being fed shrimp by the fisherman in the outrigger at the surface. This was a snorkeling-only site, unless you were staying at one of the local hotels. In the photo, you can see some scuba divers below. While there is always controversy when people interact with animals, the whale sharks here did not appear to be harmed, nor did they stay very long.

Photo 4 shows a female humpback whale calf in Moorea, French Polynesia. Environmental police there required that one enter the water hundreds of yards away and snorkel towards the mother and calf. Strobes and scuba were not allowed. In postproduction, the photo was converted to black and white using Nik Silver Efex Pro2 software. Visit: JohnAres.com

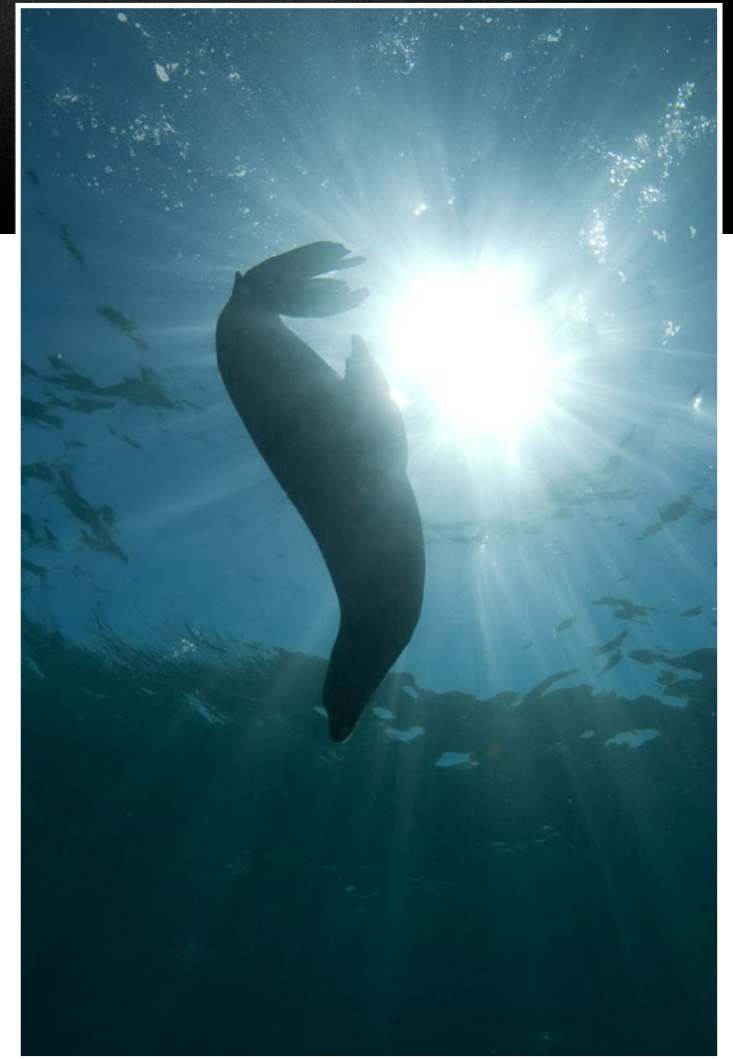


Photo 1. California sea lion, Los Islotes, La Paz, Mexico. Gear: Canon Rebel SL1 camera, Sigma 11-18mm lens at 15mm, Ikelite housing, available light. Exposure: ISO 1600, f/14, 1/200s;

Photo 2. Shrimp, San Antonio Aquarium, Texas, USA. Gear: Canon Powershot G9 camera, 7.4-44.4 2.8 lens at 7.4mm, available light. Exposure: ISO 400, f/2.8, 1/15s



In the Shallows

Text and photos by Sheryl Checkman

This topic was a bit of a challenge for me since it was hard to find underwater photos where I did not use my strobes. I chose to show some recent photos that I took while snorkeling in Mozambique last spring for this feature.

In Mozambique, on our way to dive Manta Bay, we were on the lookout for whale sharks. We got lucky and slipped into the water with our snorkels and cameras to get up close with these giants of the sea.

On another day, we took a day off from diving to go on a boat excursion

in Inhambane, where I had the opportunity to snorkel in what appeared to be a breeding ground for various species. There, I was able to photograph a seahorse, out in the open, resting on the sand, basking in the dappled sunlight, as well as a tiny juvenile lionfish tucked in among the coral and rock. This area was all quite shallow, so the lionfish's red stripes and white body were still vibrant, even to the naked eye.

At depth, we needed our strobes to bring out the colors in our photographs. Red disappears first, at less than 15ft, followed by orange (25ft), yellow (35ft), green (65ft), and finally, blue at around 200ft. Visit: [Instagram.com/sherylcheckman](https://www.instagram.com/sherylcheckman)

Whale shark, seen while snorkeling in Mozambique (above). Gear: Olympus OMD EM5 Mark II camera, Olympus M.9-18mm f/4.0-5.6 lens at 10mm. Exposure: ISO 500, f/4.2, 1/30s

Baby lionfish, found on a snorkeling dive in Mozambique (top right). Gear: Olympus TG5 camera at 18mm. Exposure: ISO 100, f/6.3, 1/250s

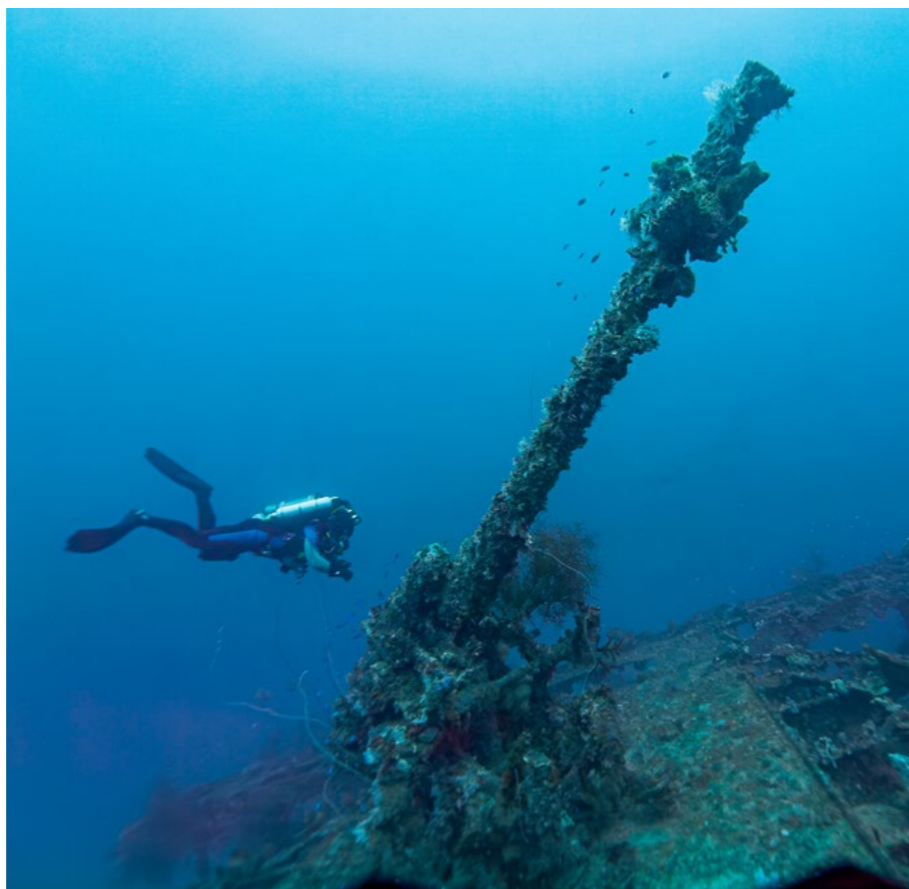
Seahorse spotted while snorkeling in Mozambique (right). Gear: Olympus TG5 camera at 11.78mm. Exposure: ISO 100, f/5.0, 1/640s



Photo 1. (bottom image) *Aikoku Maru* stern gun, Chuuk Lagoon, Micronesia. Gear: Olympus E-620 camera, Olympus 7-14mm lens, Olympus housing. Exposure: ISO 400, f/5.6, 1/30s.

Photo 2. (top right) *Amagisan Maru* bow gun, Chuuk Lagoon, Micronesia. Gear: Olympus E-620 camera, Olympus 7-14mm lens, Olympus housing. Exposure: ISO 400, f/4, 1/30s

Photo 3. (top left) Ha-Go tank on the deck of the *San Francisco Maru*, Chuuk Lagoon, Micronesia. Gear: Olympus E-620 camera, Olympus 7-14mm lens, Olympus housing. Exposure: ISO 400, f/4, 1/15s



Ambient

Majestic Wrecks

Text and photos by Larry Cohen

Most of my underwater photography involves using strobes or continuous light. However, I often shoot images with ambient light when documenting shipwrecks. For example, in Chuuk Lagoon, wide-angle photos look natural and pleasing, having a blue cast.

The stern gun on the *Aikoku*

Maru (Photo 1) and the bow gun on the *Amagisan Maru* (Photo 2) are majestic because of their size. Shooting from a low angle emphasizes the size of the guns. Adding a diver to the composition adds scale so the viewer knows how large the guns are. The photographs taken with strobes did not capture the feeling I had seeing these significant artifacts, but the ambient light photos captured the mood.

The *San Francisco Maru* was a freighter, and its deck sits in 165ft (50m) of water (Photo 3). On the deck are two Japanese light-type 95 Ha-Go tanks. These tiny tanks are an excellent photo subject when including a diver for scale. Having the diver point a dive light at the subject draws the viewer's eye to the tank. Visit: liquidimagesuw.com



Photo 2. (above) Humpback whale calf, Moorea, French Polynesia. Gear: Canon EOS Rebel SL1 camera, Canon EF-S 10-18mm f/4.5-5.6 IS STM lens at 18mm, Ikelite housing, available light. Exposure: ISO 1600, f/20, 1/200s

Light Au Naturel

Text and photos by Anita George-Ares, PhD

I took this image of the great white shark from a cage (Photo 1). The clear waters of Guadalupe Island provided great opportunities for available light photography. Guadalupe Island is now closed to all tourism including cage diving with sharks. The image was converted to black and white using Nik Silver Efex Pro 2 software.

I left the boat, which was a couple of miles offshore of Moorea, and snorkeled on the surface. The humpback whale calf (Photo 2) had just taken a breath at the surface and was headed down to join her mother waiting



in the depths. The dappled sunlight created a beautiful pattern on the calf's back.

At Oslob, local fishermen in outriggers dispense small shrimp to resident and transient whale sharks. In Photo 3, a whale shark feeds at the surface. A few long-jawed mackerel

Photo 1. (bottom right) Great white shark, Guadalupe Island, Mexico. Gear: Canon EOS Digital Rebel XTi camera, Canon EF-S 10-22mm f/3.5-4.5 USM lens at 22mm, Ikelite housing, available light. Exposure: ISO 400, f/8, 1/80s

Photo 3. (right) Feeding whale shark, Oslob, Cebu, Philippines. Gear: Canon EOS Digital Rebel XTi camera, Canon EF-S 10-22mm f/3.5-4.5 USM lens at 10mm, Ikelite housing, available light. Exposure: ISO 400, f/3.5, 1/500s

Photo 4. (below) Whale shark, Oslob, Cebu, Philippines. Gear: Canon EOS Digital Rebel XTi camera, Canon EF-S 10-18mm f/4.5-5.6 IS STM lens at 11mm, Ikelite housing, available light. Exposure: ISO 400, f/4.5, 1/1250s





Ambient

Steel pompano clean parasites off the shell of a passing green sea turtle, Santa Fe Island, Galápagos. Gear: Nikon D3 camera, Nikon 24-50mm lens, Subal housing. Exposure: ISO 200, f/5.6, 1/200s



Juvenile bat ray swimming over the shallow sandy bottom, La Jolla Shores, California (above). Gear: Nikon D3 camera, Sigma 15mm fisheye lens, Subal housing. Exposure: ISO 200, f/6.3, 1/160s; Galapagos sea lion pup just under the water's surface near the volcanic rocks of the shoreline, South Plazas Island, Galápagos (top left). Gear: Nikon D3 camera, Nikon 24-50mm lens, Subal housing. Exposure: ISO 200, f/5.6, 1/125s

Practical and Creative

Text and photos by Matthew Meier

There are many reasons to utilize ambient light for underwater photography, ranging from the practical to the creative. Looking through my library, the best practical examples include images of subjects such as whale sharks, whales and shipwrecks that are simply too large to artificially light properly. That list also includes photos created in poor water clarity conditions when added light would manifest more backscatter than was worth attempting to clean up later.

Capturing sunrays in dark caverns or shooting silhouettes against bright backgrounds are creative uses of available light. Another occasion in which I shoot without strobes is while snorkeling, which is both practical and a little lazy, for not wanting to push the added bulk through the water column.

The nice part is that as long as you do not dive down too far, you can still bring back colorful images with a custom white balance adjustment and perhaps a little magic in the HSL panel. All of the photos I selected for this piece were taken while snorkeling in less than 15ft of water, both close to home in San Diego and in far off places such as the Galapagos and French Polynesia. Visit: MatthewMeierphoto.com



Over-under view of juvenile blacktip reef sharks swimming in shallow water, Blue Lagoon, Rangiroa Atoll, French Polynesia. Gear: Nikon D810 camera, Sigma 15mm fisheye lens, Subal housing. Exposure: ISO 200, f/11, 1/400s

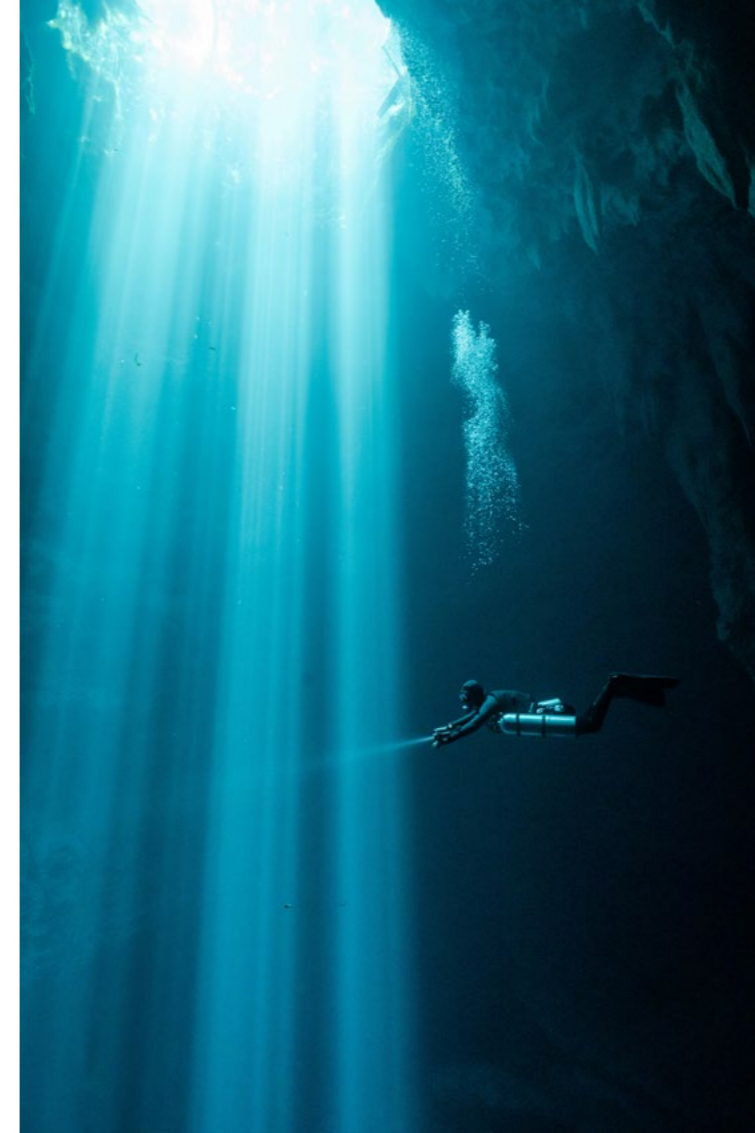
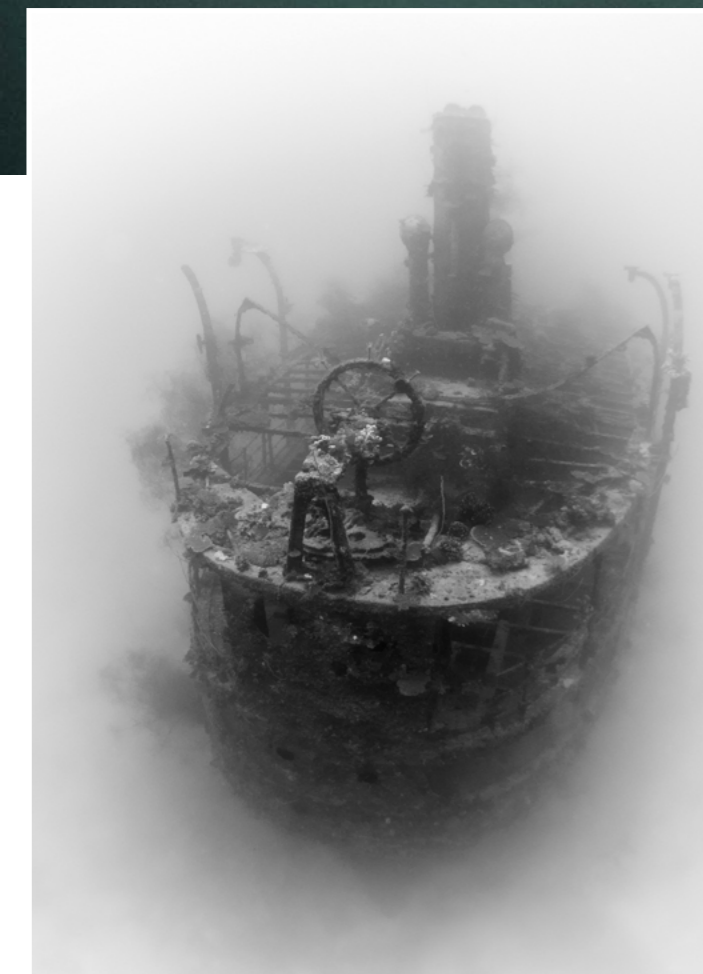


Photo 1. (left) A diver swims into the light in Cenote Azul Ha, Mexico. Gear: Nikon Z7 II camera, 16-35mm lens, Ikelite housing. Exposure: ISO 2500, f/6.3, 1/60s

Photo 2. (far left) Divers appear to be in an enchanted forest in Cenote Angelita, Mexico. Gear: Nikon D850 camera, 8-15mm lens, Ikelite housing. Exposure: ISO 5000, f/5, 1/80s

Photo 3. (bottom left) The Palawan wreck in Kwajalein Atoll, Marshall Islands. Gear: Nikon D7100 camera, 10mm lens, Ikelite housing. Exposure: ISO 320, f/5.6, 1/160s

Photo 4. (below) An Avenger airplane wreck in Kwajalein Atoll, Marshall Islands. Gear: Nikon D750 camera, 10mm lens, Ikelite housing. Exposure: ISO 320, f/13, 1/100s



Caverns and Wrecks

Text and photos by Brandi Mueller

Ambient light is a great way to showcase two of my favorite diving environments: caverns and wrecks. I love to show the vastness of each by getting as far away as possible from the wreck or cavern structure to show a large, wide-angle view of their enormity.

Mexico's cenotes are numerous and each one is different. I love seeing the different rock formations and how collapses over time have allowed light to enter these

otherwise pitch-black environments (Photos 1 and 2).

The WWII wrecks of Kwajalein Atoll have been underwater for almost 80 years, and after all that time, some are still intact. Even with powerful lights, lighting up these massive wrecks or large geological spaces is near-impossible with on-camera lighting, as the lights from the camera would not reach the subject and would only add backscatter to the images. I love to try and bring back images that capture the grandeur of these places, and using ambient light is one of the best ways. (See Photos 3 and 4.) Visit: brandiunderwater.com





Photo 3. (top center) Giant manta ray in silhouette. Choose a subject that there is no mistaking its identity. Exposure: ISO 200, f/16, 1/100s

Photo 4. (top left) Sandbar shark in Snell's window. Capture Snell's Window and plenty of ambient light to illuminate your subject. Exposure: ISO 200, f/11, 1/100s

Photo 5. (top right) Tiger sharks in shallow clear water. Shoot wide angle very close in shallow clear water for large subjects. Exposure: ISO 100, f/8, 1/160s

All photos were taken with Nikon D500 camera, Tokina 10-17mm lens, Nauticam housing. Photo 1. (far right) Surface lemon shark. The sun's rays are broken up by tiny wavelets and create a reticular network of light. Exposure: ISO 200, f/11, 1/200s; Photo 2. (right) Lemon shark abstract. The additional interplay of shadow enhances the feeling of motion and depth. Exposure: ISO 200, f/8, 1/250s

Playing with Ambient Light

Text and photos by Gary Rose, MD

Ambient light is always changing. It changes seasonally, daily, hour-by-hour, second-by-second. It is a joy to play with, and it provides unlimited and often unexpected results. Understanding how to utilize ambient light in its multiple and unlimited forms is a terrific tool in the underwater photographer's toolbox.

One of my favorite times of an entire dive is the end. No, I do not mean when I come out of the water. I am referring to those last few minutes of the ascent, and during the safety stop, when the water clears and the light quality ramps up. This is a time, if you are patient, to catch some of the most dramatic underwater photos. Ambient light includes natural light, and you are just never sure what gifts, or tricks, of lighting are coming your way—especially up near the surface, where the surface texture of the sea and the position of the sun can, and will, provide an endless supply of special effects.

Many of my dives are in the waters off the coast of Jupiter, Florida. Lemon sharks are always there, because we have our resident population of lemon sharks as well as the annual seasonal aggregation of lemon sharks. They are fun and playful during the entire dive and act like excited puppy dogs. They almost always follow us up to the surface, and that is where the magic begins. By breaking one of the cardinal rules of photography—"never shoot down"—I have been able to take some of my most dramatic photographs. As demonstrated in Photo 1, the sun's rays are broken up by tiny wavelets, on the surface, and bathe a lemon shark in a reticular network of light. I recommend shooting lots of photos of this, because there is a lot of rapid three-dimensional movement, and you want to nail the light pattern crisply. In Photo 2, I moved in very close to two lemon sharks to achieve this abstract result. The additional interplay of shadow, from above, enhances the feeling of motion and depth.

One of the classic styles of underwater photography with ambient



light is the opposite of shooting down; instead, one shoots straight up to capture a silhouette. I find that the two most important components of shooting a silhouette is to have a large subject so that there are sharp defining borders, and to shoot a subject that is very recognizable. A silhouette of a fish pretty much looks like a silhouette of most fish. Choose a subject such as a sea turtle, whale, sea lion or, as in Photo 3, a giant manta ray at the surface. There is no mistaking its identity. With its wings spread and visible wave patterns above it, you cannot help but feel that it is flying through the sea.

Another "shooting-up" technique

that I enjoy implementing is to shoot up obliquely. This way, I am able to capture plenty of ambient light to illuminate my subject, as well as capture a very dramatic background of Snell's window with very visible puffy clouds in a blue sky. Photo 4 required a lot of test shots, as I planned the photo and experimented with many camera settings to capture each individual component of this photo.

One of the pleasures of diving offshore at West End, Grand Bahama Island, is the clear and shallow water that is a photographer's dream. In Photo 5, the bright sun clearly lit up these two beautiful tiger sharks in the

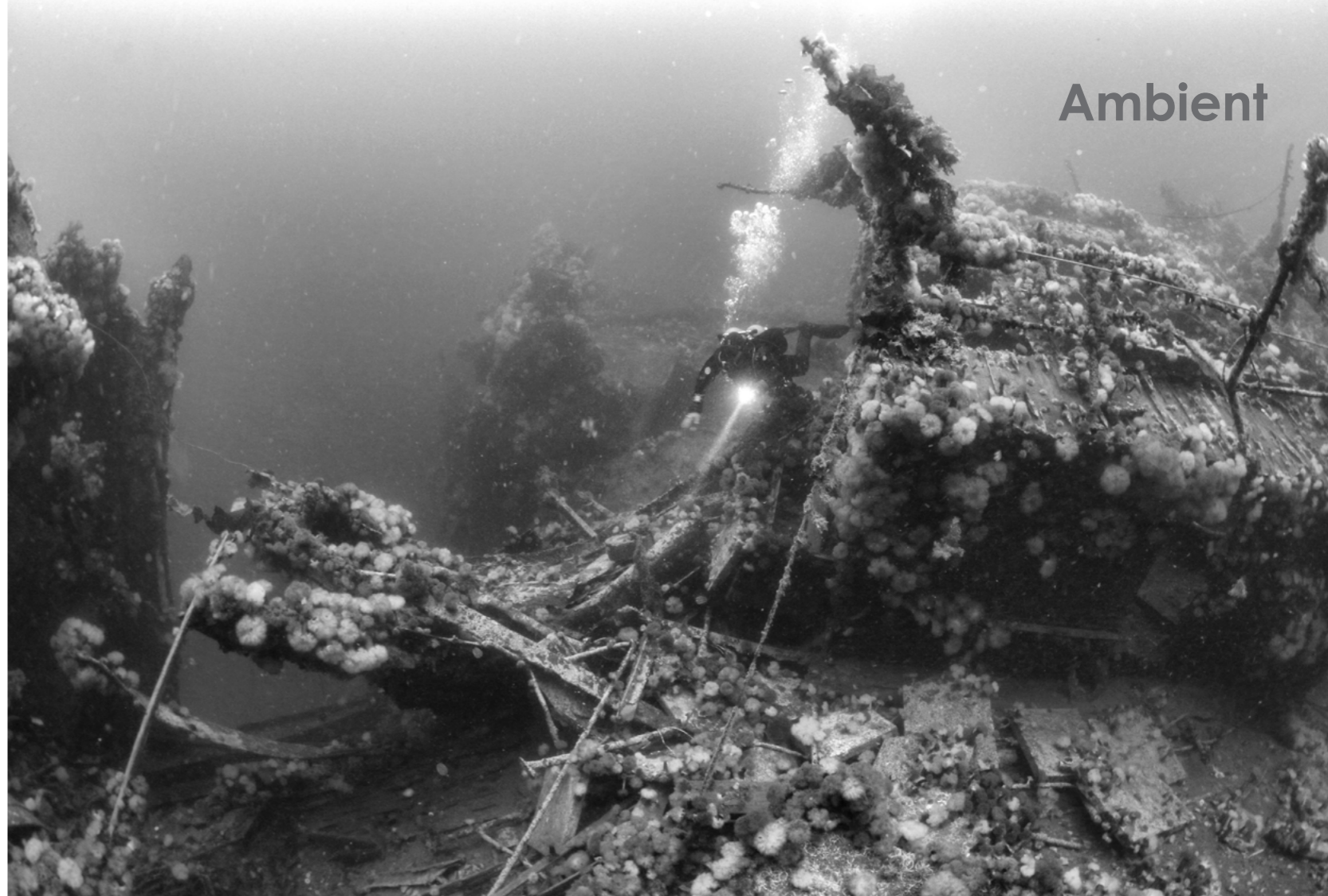


foreground and provided a feeling of warmth and tranquility. The other two tiger sharks (can you find them?) are far enough away that the light has been filtered to a beautiful shade of blue, and it does not distract the viewer's eye away from the main subject in the foreground.

If you have been solely relying on artificial light (torches or strobes) for your underwater photography, then you will have a bit of a trial-and-error period to learn how to capture ambient light in all of its capricious forms. The best part is that every single dive and photo opportunity will be challenging and unique. Visit: garyrosephotos.com



Photo 1. (right) Diver ascending to a dive boat off the New Jersey shore, USA. Gear: GoPro Hero 4 Black action camera, video frame grab



Ambient

Photo 2. (top left) Diver on *Hilma Hooker* wreck, Bonaire, Netherland Antilles. Gear: Canon EOS 7D Mark II camera, Tokina 10-17mm fisheye lens (10mm), Nauticam housing, video frame grab

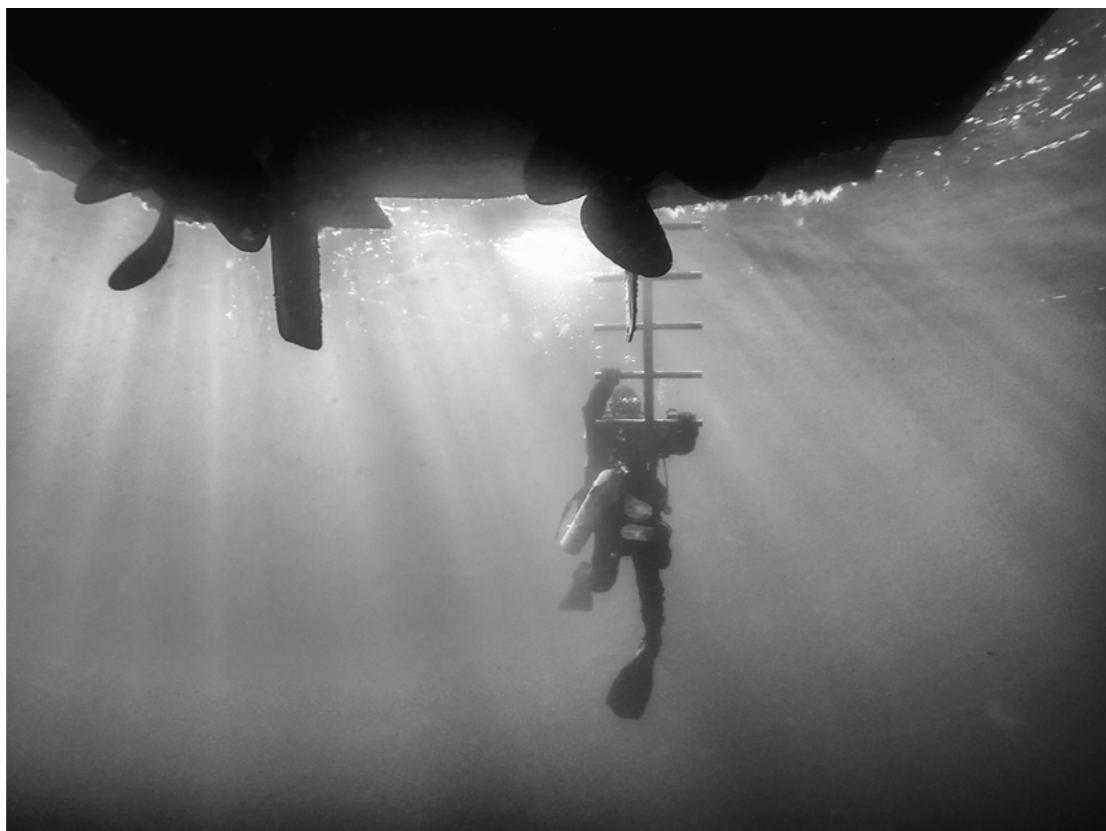


Photo 3. (top right) Diver on the wreck of the *SS Saganaga*, Newfoundland, Canada. Gear: Canon EOS 7D Mark II camera, Tokina 10-17mm fisheye lens (10mm), Nauticam housing. Exposure: ISO 500, f/8, 1/40s

Vast Scenes

Text and photos by Michael Rothschild, MD

Underwater photographers grapple with light, arguably more than our topside colleagues. Light is the number one factor affect-

ing all images (edging out even composition and focus). And we divers shoot through an environment that gobbles up more and more precious photons with every meter we drop below the surface. Eventually, our only hope is to bring artificial “suns” with us into the depths. But in shallow water, a

strong sunbeam can reach down to our subject and illuminate vast scenes, far beyond what we could ever cover with strobes or video lights.

Photo 1 is of a diver returning to the boat, with the bright cathedral rays beckoning him upwards, towards light and air. The second image (Photo 2) is on a shallow wreck—the white sand reflecting the Caribbean sun back upwards, to fill in the details of the diver hovering in angular composition with the ship. The third shot (Photo 3) shows a wide debris field created by a World War II torpedo, which found a ship at anchor. And the fourth one (Photo 4) is a playful aquatic mammal, joyfully cavorting in the pool to let me try my new iPhone housing. Visit: dive.rothschilddesign.com



Photo 4. (above) Freediver in swimming pool. Gear: iPhone 14 Pro in Kraken KRH08 Universal smartphone housing, video frame grab



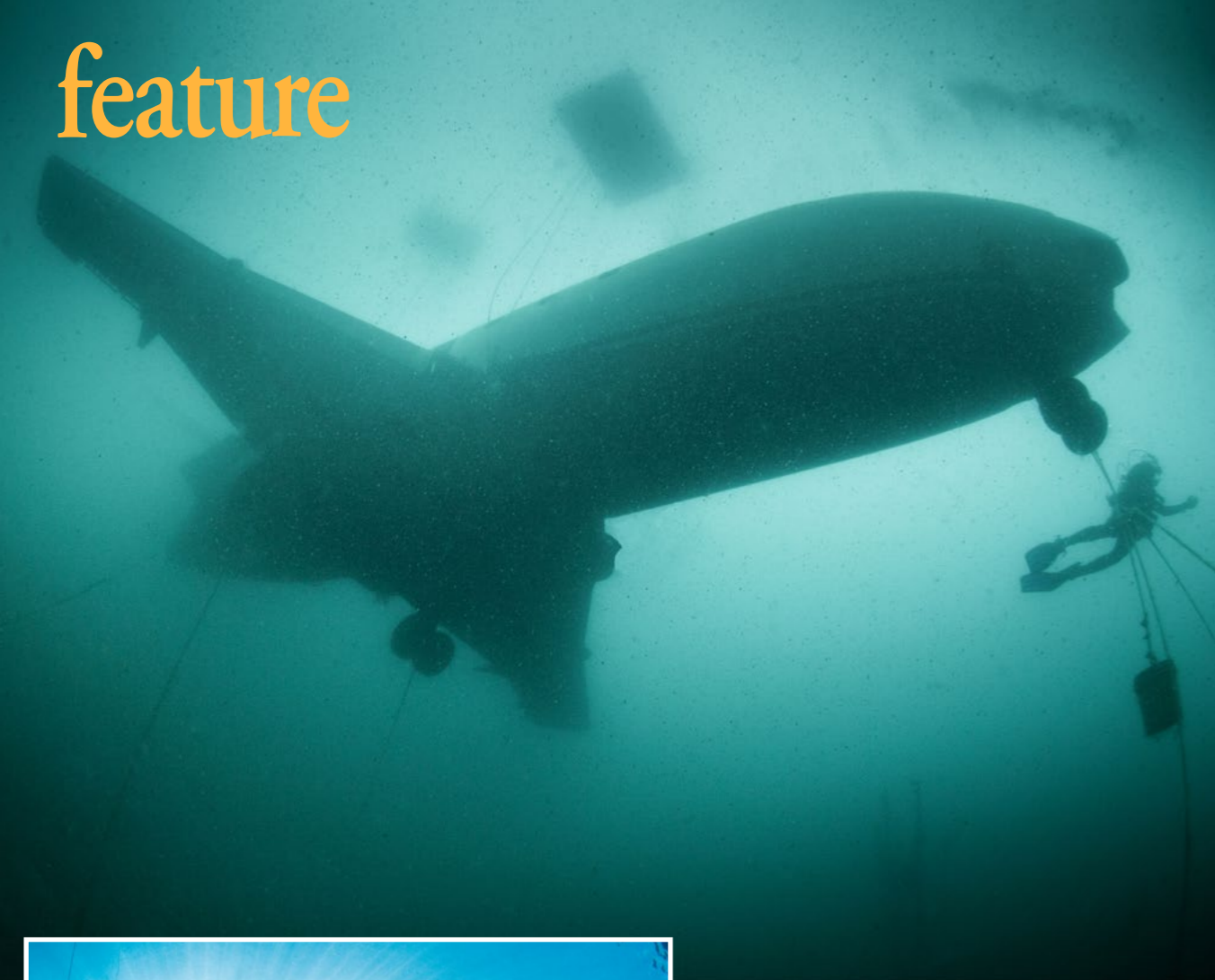


Photo 1. (above) Aircraft Challenger 600 found a new home at Dutch Springs, Pennsylvania, USA. Gear: Olympus OM-D E-M5 camera, Panasonic Lumix G fisheye 8mm f/3.5 lens, Nauticam housing. Exposure: ISO 400, f/5.6, 1/160s



Photo 2. (right) The Boiler is a pinnacle and is the best spot for seeing big animals. Revillagigedo Islands, Mexico. Gear: Olympus OM-D E-M5 camera, Panasonic LUMIX G VARIO 7-14mm f/4 lens, Nauticam housing. Exposure: ISO 400, f/6.3, 1/100s

Photo 3. (bottom left) The liveaboard *M/V FeBrina* awaits returning scuba divers to come back on board. Papua New Guinea. Gear: Olympus OM-D E-M5 camera, Panasonic Lumix G fisheye 8mm f/3.5 lens, Nauticam housing. Exposure: ISO 500, f/11, 1/250s

Photo 4. (above) The wreck of the Cessna aircraft at Dutch Springs, Pennsylvania, USA. Gear: Olympus OM-D E-M5 camera, Panasonic Lumix G fisheye 8mm f/3.5 lens, Nauticam housing. Exposure: ISO 250, f/7.1, 1/50s



Perfect Conditions

Text and photos by Olga Torrey

Ambient light means available light, including sunlight, moonlight and overhead light. In Photo 1, the aircraft Challenger 600 at Dutch Springs was submerged in the middle of March 2018. The water temperature was frigid on the day of the sinking, but the visibility was 50ft. The conditions were perfect for taking photos of the new underwater attraction using ambient light. I used a fisheye

lens to get closer to the subject to reduce the amount of water between the lens and the subject—this increased sharpness. I pointed the camera up to enhance the contrast between the plane and the ambient light above.

The Boiler (Photo 2) is a pinnacle in 250ft of water and is the best spot for seeing giant manta rays and dolphins in the Revillagigedo Islands of Mexico. I saw my first Pacific giant manta ray in 2016 at the Boiler dive site, and the experience was mesmerizing. When I jumped off the

zodiac into the water, I was surprised that I could see the bottom of the pinnacle. The visibility was excellent, and I attempted to show the pinnacle's immense size. I pointed the camera down, using ambient light to define the enormous rock formation.

In 2018, I visited Papua New Guinea, the country I had dreamed of visiting since childhood. My hero, explorer and scientist Nicholai N. Miklouho-Maclay, was the first European to settle among and study the life of the native people. Diving off the liveaboard *M/V FeBrina* (Photo 3),

I used available sunlight to create the image of the vessel with streaming sunrays.

One of my favorite dive destinations near New York City was Dutch Springs in Pennsylvania. The lake had many submerged attractions for divers to explore. For example, the Aircraft Cessna wreck (Photo 4) was in shallow water, with plenty of ambient light. I used my scuba buddies Larry and Gregory to show scale. My models used video lights to add interest to the low-contrast image. Visit: fitimage.nyc

