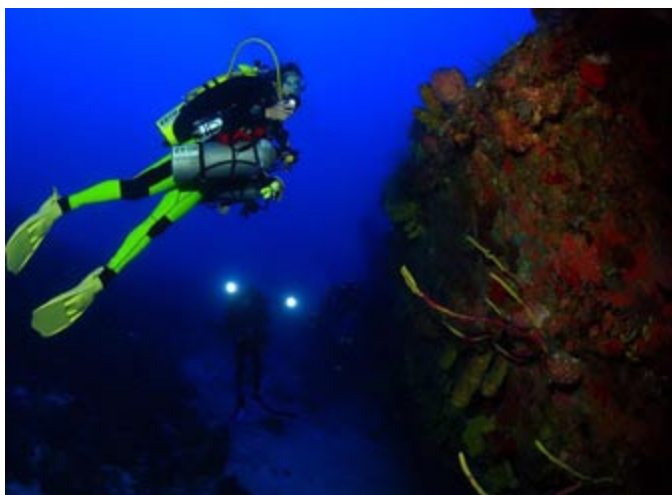


a healthy dose of familiarity with your photo system, confidence in your knowledge of the basics of shooting, and a bit of luck. Obviously dive training, experience, and skills must also be up for the undertaking. Choice of photographic equipment is paramount to contributing to the success of shooting below recreational limits. Many manufacturers rate their products based not only on the engineering but also the degree of acceptable warranty risk. When you start asking around you find out that most of the depth specifications are very conservative, as the development testing is often considerably deeper than the recommended rating. Of course, as a consumer, one has to accept the risk that taking a piece of equipment substantially below its rated capacity could mean losing it. For example, I know of a fellow who takes a Nikonos V (rated to 165 feet) down well below 200 feet and “most of the time” it comes back intact. When it doesn’t he either rebuilds it or retires it to the bookshelf. For me, I would not be willing to expend the energy required for this type of diving to have my camera system come up OK “most of the time.” Keep in mind though that a piece of equipment may be rated for 330 feet but it could still fail at 275 based on condition and maintenance.

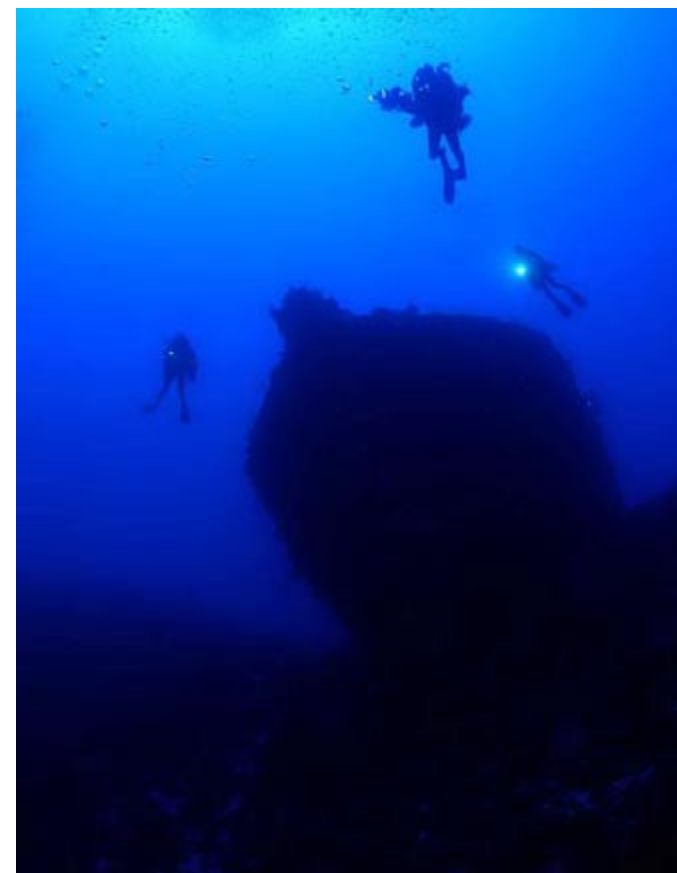
Watching fish swim around inside your flooded housing is not the only way to be carrying a useless box on a dive. Often in deep situations some of the features may not be functional or be difficult to utilize. At around 280 feet, during the dive in the opening paragraph, I was unable to use my shot preview button, as the housing spring was not strong enough to return it to the normal position due to the ambient pressure. This particular problem was more of an inconvenience however, because I could just bracket like the ol’ days (more on this



The deep walls of Cayman have vibrant coral and sponge populations such as these at 220 feet. Grand Cayman Island. L&M Titan, Nik D100, 16mm, Ike SS200 full power, ISO 200, f6.3, 125sec.

later). Housing controls that are used frequently will probably degrade the fastest over time. The o-rings or springs on these buttons may not have the same capabilities as when they were new (sounds familiar doesn’t it?) or their individual properties are not up to par. It is important that critical controls such as shutter releases, film advances, focus knobs, etc., are designed in such a way to minimize being deactivated by the effects of pressure. On many of the less expensive plastic housings you can actually see control rods bending out of alignment with camera buttons when at or beyond their depth ranges.

If you’ve ever seen a good submarine war movie you know water doesn’t drip in through leaks at depth – it explodes in! O-ring maintenance is even more crucial when dealing with 150psi of water trying to get into a box with only about 15psi of air



The view from 260 feet is awesome. The Carrie Lee sits upright, literally on the edge of a wall that towers thousands of feet above the abyssal sea floor. The next big hurricane could send her over the “top.” Grand Cayman Island. Light&Motion Titan, Nik D100, 16mm, available light, ISO 200, f6.3, 125sec.

pushing out. The slightest nick, piece of dust, or hair, on the seals can provide a great entrance for a high-pressure stream of water. With today’s sophisticated electronic cameras about a teaspoon of ocean is all you need to ruin your day. It takes even less to send a strobe into an electronic spasm of firings before



fizzing out. Because the cameras have become more complex so are the housings. Since most functions are available to the diver, it means there are a significant number of through the bulkhead buttons and levers. All of these must be made water tight with o-rings, shaft glands, etc. As such, even with “recreational” use it is a good idea to follow recommended service intervals. Preventative maintenance becomes imperative when constantly taking the system to its limits. With salt water damage it rarely pays to have the camera repaired. It almost always requires another trip to your favorite photo shop for a new purchase.

Anyone who has tried to get a meaningful photograph below the surface knows that time is not the only hurdle to deal with. Lack of light and contrast under the waves is almost always an issue for the underwater photographer and even more of a problem for the deep diver. Of course reduced turbidity, organics, etc., in the water column and less cloud cover above will mean more light available to use at depth. Usually tropical destinations meet these criteria and provide the most consistent clarity but not always. Diving under sheets of ice, some fresh water springs, and those magical days in temperate seas can also let the sunshine in. Sadly,



(Right) The price to pay for our 18-minutes of bottom time ñ some 50 minutes of decompression. L&M Titan, Nik D100, 16mm, Ike SS200 1/4 power, ISO 200, f4, 125sec. (Above) A welcome sight when drift diving for over an hour is the support RIB right on time. L&M Titan, Nik D100, 16mm, Ike SS200 1/8 power, ISO 200, f13, 125sec.

I can count the number of days on my fingers that I had “tropical like” conditions at home, so typically the natural light accessible is quite different between the two locals. In murkier waters opening the lens up as well as using longer exposures from 1/30sec or more can help when using diminished ambient illumination. Unless motion is desired a sturdy prop such as a tripod or something to brace against (without damaging marine life) is required and your subject cannot be moving. Coupling slower shutter

speeds with higher ISO’s of either film or digital capture makes a good tool to combat light loss, but there is a price to pay with increased graininess, camera shake, or noise in the final image. Shooting toward the surface will certainly help too, however the dive plan must take into account that the subject needs to be above maximum depth.

A sufficiently powerful strobe, or strobes, is essential if you’re going to unlock the colors and boost contrast. While there are some big



Besides the photographic equipment, there is a mound of cylinders, regulators, and ancillary gear that must be checked before making the deep plunge. Nik D100, 18-35mm, Fill flash, ISO 200, f5.6, 180sec.

powerful flashguns available, you must balance capabilities with size and complexity of system. I have found the Ikelite Substrobe 200 to currently meet my needs. With an underwater guide number of 38, and a potent built in modeling light, I can keep my photographic system manageable by using a single strobe on the deeper dives. And now that I

have finally made the switch to digital I feel well armed prowling the depths. The Nikon D100 can give me very fine publishable images and with the digital darkroom I'm able to carve out far more keepers per dive. By shooting in the "raw" format I have more control of exposure and contrast than I ever could with transparency film. Also, with instant feedback I can make effective changes on site (providing the access control is working!) Due to the very limited time at depth I usually just check gross exposure on the LCD. With more than a hundred raw images available on a 1-gig card I'm free to bracket all I want without worrying about running out of frames. A 2-gig card would double this luxury. Digital also allows ISO to be changed on the fly for as few or as many shots as you like. This is very handy when you want to change the "feel" of a shipwreck for example, without committing the whole roll to a particular ASA rating. That is not to say you can't produce fine images with film, for there are many superb photographs fashioned in just this manner. I am not attempting to debate film vs. digital either but rather to illustrate my increased successes with deep-water shots by using digital tools.

Technical or extended range diving is not a trivial pursuit. It takes serious commitment in time, money, and training to do it productively and

safely. It requires a very different approach to the dive than most people are used to with recreational scuba. Staying down a couple of extra minutes to get the shot, or dropping past dive plan depth limits to get under a subject, is not only hazardous to the individual attempting it but also puts the whole dive team in jeopardy. Like driving an automobile faster and faster there is less time to handle an emergency and the ramifications expand exponentially the deeper one goes. Simply bailing out and doing a "free ascent" is never an option. Adding the additional task loading of a camera should be done in stages, with lots of practice in shallower water and full technical kit to get an idea of how to manage the whole package in a safe and efficient manner. Few people venture to these depths and fewer still acquire photographs of the vistas they observe. For those willing to take the challenge and manage the increased risk, the rewards are many. Whether it is undersea scenics, large pelagic animals, or the mystery of a shipwreck, there are endless possibilities for the deep-water photographer to experiment with.

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The Devils playground

by Anthony Grote

It is known as the Wild West. It is a place where man still has to totally conquer, a place where sea creatures still come to reproduce in relative peace, where forest meets sea, and where the devil has his playground.

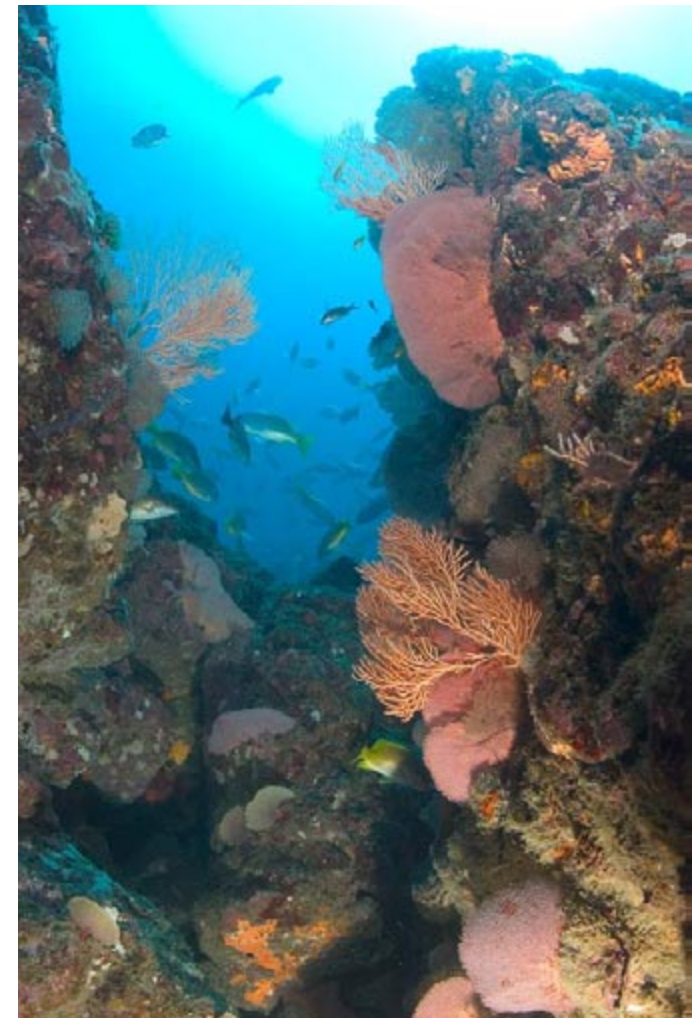
It was going to be a wild ride that would take us deep into the Osa peninsula, home of the last free roaming Jaguars. The coastline is a morass of unexplored wilderness, where small, coastal towns still have to be discovered, let alone discovering their tourism potential. The country is probably best known for its diving around the Cocos Island area. Unfortunately we were not going to get there this trip but where we were heading is known to come a very close second. In fact, the area where we were heading, known as Isla del Cano, is known to the locals as “The Little Cocos”. Drake bay (pronounced as “Dra-ka-ee”), was going to be our base from where we would explore this island.

We had chosen to go rustic. Our camp was known as Pirate Cove, with no electricity (a generator runs for a couple of hours a day at which time you can charge batteries), and our room was situated amongst the coastal rainforest, with no windows so that the natural sounds filter in and sooth the soul. Despite being rustic, their dive center was well equipped, and their boats were first class. The staff was friendly and extremely enthusiastic, ready to take you anywhere and show you the surrounds. That afternoon we decided to explore



Drake Bay and were lucky enough to experience the call of free-living Scarlet Macaws as they fought amongst the trees on the beach. The locals were all friendly, greeting you as you walked past, even the local school was having classes on the beach, (which, I decided, was to be the best school I had ever seen).

The day got off to an early start after a hearty breakfast. We were escorted to our dive boat on a small rubber duck, and off we headed for Isla del Cano (which means “Island of many waterfalls”). Visible from Drake Bay, the Island is fairly large, covered in coastal rainforest and given the name because of the many waterfalls that appear in the rainy season. It took us about 35 minutes by boat to get into the shallow waters of the island. The crystal clear waters around the island allowed us to see our first encounter even as they dived under the boat. A school of Pacific Spotted Dolphins appeared, as we rounded the one end of the island, as if to greet us and welcome us to their domain. They played around us for about 5 minutes and then they were off in search of their daily feeding grounds. We



*Volcanic rocks covered in various corals
Nikon D100 Light&Motion Titan D100
Sea & Sea strobes Nikon 16mm f2.8 fisheye
1/90s – f9.5*

dropped off our picnic basket on the island (where we were to spend our surface interval) and off we headed to our first dive.

“El Bajo del Diablo”, or commonly known as The Devils’ Pinnacles, was to be our first dive.