DOWNLOAD PDF BASIC UNDERWATER PHOTOGRAPHY

Chapter 1 : Basic Underwater Photography | Photography Blog

If you've taken some underwater photos before, you might want to skip this section. Here's where I cover the basic photography tips, if you are starting out with a point and shoot. UWPG is a vast resource for improving your underwater photography, whether taking a camera into the water for the.

With a basic point-and-shoot underwater camera, the resulting pictures are often washed-out and contain too little red light. This will result in distracting white spots all over the photo. I utilise Photoshop CS5 to remedy these problems, using a simple 5 minute edit to color correct the photos, providing a more natural lighting, and to remove the backscatter. This edit often makes a drastic improvement to the quality of the photo. This gives you more to work with at the time of editing. Likewise, if your camera takes RAW photos, then use that format for your editing, as it gives your photo editing software far more information to work with. I will create a new folder on my hard-drive, where all my working photos are stored. At this stage, I will rename the photo. Original Unedited Photo As you can see, this photo has a very blue cast â€" with little red color. There is also a large amount of floating sand particles that distract from the subject. To do this, go to the Layer menu. Select Create Duplicate Layer. This opens an adjustment and preview box. I do not adjust the Threshold setting set at 1. The next step is to go to the History menu. I then select the previous action in the menu â€" Duplicate Layer. This selection takes us back to the previous stage in the editing process. A new brush menu appears at the top of the screen. In this menu, I select Mode and choose Darken. I then select an appropriately sized Brush to set this, just right-click and use the slider to set the brush size. Use the History Brush to remove all of the annoying particles in your photo. Here is the Backscatter Removed photo: Backscatter Removed and Sharpened Now save the photo at this stage, to preserve the changes you have made. My first action is to create a new duplicate layer. To make selective sharpness adjustments select a preview area on the photo that shows lots of detail. Set Threshold at 1. Slide the Amount to fine-tune the effect. In this menu, check the box next to Unsharp Mask. In this menu, I leave Mode as Normal. This adds some depth and definition. Step 5 â€" Improve the Color Now we can start on the color improvement stage. Channel Mixer My first step is to go into the Layer menu. Select New Adjustment Layer. On the drop-down menu, then select Channel Mixer. This opens a new adjustment box. The photo is missing red color as most underwater photos do. If you raise one value, you must decrease the other i. Adjusting pixel color using the Channel Mixer box This is a process of experimentation for each photo, but you will get quick with predicting the necessary adjustments as you practice more. Channel Mixer to restore red pixels to the photo Save the photo again, using a new stage filename i. Bumphead Process 3 to preserve your work. On the drop-down menu, then select Levels. Fine-tune the overall effect using slight adjustments to the mid-point stop. Effect of Levels adjustment to balance colors. You can see that dramatic difference made to the color spectrum of the photo. Hue and Saturation Whilst the photo now looks pleasing, you can tweak it further using a Hue and Saturation layer. Go back to the Layer menu. Adjusting the Hue and Saturation levels In the adjustment box, go through each color option individually and adjust the saturation setting and the lightness to give a pleasing effect. Then go to the Layer menu.. This will make the image very dark it increases the pixels. To compensate for this, reduce the Opacity setting. It gives a crisper and deeper image. Use the Rectangular Marquee Tool to designate the area you want to keep, then go to Image â€" Crop to cut the image down. If your cropped image is too smallâ€¦ you can increase the size slightly. I opt for Resample Image: I then save the picture at max resolutionâ€¦ Step 8 â€" Save for Web I assume that you will want to publish the photo onto an online album or share it on Facebook. For online photos, you can use Photoshop to compress the picture for fast uploading and viewing. Simply go to the File menu and select Save for web. On the following pop-up menu, ensure that you select JPEG and then choose an appropriate quality of compression size. On the Compression Quality drop-down box, select High and notice the quality of the photo in the preview. Again, inspect the quality. Keep moving down the options until you reach the Compression Quality option that provides a decent picture, with the smallest size. Click Save and then provide a new filename for the photo i. Step 9 â€" Upload and make your friends jealous! There you have it! A quick step process that can make a dramatic improvement to the quality of your

otherwise washed-out, blue photographs. With a little practice, this process will become very instinctive and should take less than 5 minutes per photo. Here is the final comparison. Before and After the 5 Minute Photo Edit I hope that this mini-workshop helps you create more fabulous photos on your dives! Check out the Scuba Tech Philippines website, for details of our diving and underwater photography courses.

Chapter 2 : AggressorÂ® | Official Site | Liveaboards, Safaris & River Cruises

The top 10 basic principles for getting started in underwater photography DPG is a comprehensive underwater photography website and community for underwater photographers. Learn underwater photography techniques for popular digital cameras and specialized professional underwater equipment (wide angle, macro, super macro, lighting and work.

Lighting[edit] Graph of light absorption coefficient of pure water The primary obstacle faced by underwater photographers is the loss of color and contrast when submerged to any significant depth. The longer wavelengths of sunlight such as red or orange are absorbed quickly by the surrounding water, so even to the naked eye everything appears blue-green. The loss of color increases not only vertically through the water column , but also horizontally, so subjects farther away from the camera also appear colorless and indistinct. This effect occurs in apparently clear water, such as that found around tropical coral reefs. The first is to get the camera as close to the photographic subject as possible, minimizing the horizontal loss of color. Many serious underwater photographers consider any more than about one yard or meter unacceptable. The second technique is the use of a flash to restore colour lost to depth. Fill flash , used effectively, "paints" in missing colors by providing full-spectrum visible light to the overall exposure. The water is seldom optimally clear, and the dissolved and suspended matter can reduce visibility by both absorption and scattering of light. Equipment[edit] Some cameras are made for use underwater, including modern waterproof digital cameras. The first amphibious camera was the Calypso , reintroduced as the Nikonos in The Nikonos range was designed specifically for use underwater. Nikon ended the Nikonos series in [3] and its use has declined, as has that of other 35mm film systems. Most such housings are specific to the camera. Materials range from relatively inexpensive plastic to high-priced aluminum. Housings allow many options: Underwater photographers generally use wide-angle lenses or macro lenses , both of which allow close focus and therefore a shorter distance to the subject, which reduces the loss of clarity to scattering. Digital media can hold many more shots than standard film which rarely has more than 36 frames per roll. This gives digital cameras an advantage, since it is impractical to change film underwater. Other comparisons between digital and film photography also apply, and the use of film under water has declined, as it has on land. Underwater housings have control knobs and buttons that reach the camera inside, allowing use of most of its normal functions. These housings may also have connectors to attach external flash units. Some basic housings allow the use of the flash on the camera, but the on-board flash may not be powerful enough or properly placed for underwater use. More-advanced housings either redirect the on-board strobe to fire a slave strobe via a fiber-optic cable, or physically prevent the use of the on-board strobe. Housings are made waterproof by silicone or other elastomer O-rings at the crucial joints and where control spindles and pushbuttons pass through the housing. High-end housings may use double O-rings on many of the critical pushbuttons and spindles to reduce the risk of leaks, which can destroy the electronics in cameras. Some cameras are inherently waterproof, or submersible to shallow depths; when these are in submersible housings, the consequences of a small leak are generally not serious. There are optical problems with using cameras inside a watertight housing. Because of refraction , the image coming through the glass port will be distorted, especially with wide-angle lenses. A dome-shaped or fish-eye port corrects this distortion. Most manufacturers make these dome ports for their housings, often designing them to be used with specific lenses to maximize their effectiveness. The Nikonos series allowed the use of water-contact opticsâ€”lenses designed to be used submerged, without the ability to focus correctly when used in air. There is also a problem with some digital cameras , which do not have sufficiently wide lenses built in; to solve this, there are housings made with supplementary optics in addition to the dome port, making the apparent angle of view wider. Some housings work with wet-coupled lenses, which are screwed on to the outside of the lens port and increase the field of view; these lenses may be added or removed under water, allowing both macro and wide-angle photography on the same dive. With macro lenses , the distortion caused by refraction is not a problem, so normally a simple flat glass port is used. Refraction increases the magnification of a macro lens; this is considered a benefit to photographers who are

trying to capture very small subjects. Underwater flash[edit] Wide-angle image of French angelfish with proper balance between flash and sunlight The use of a flash or strobe is often regarded as the most difficult aspect of underwater photography. Some misconceptions exist about the proper use of flash underwater, especially as it relates to wide-angle photography. Generally, the flash should be used to supplement the overall exposure and to restore lost color, not as the primary light source. Usually, the photographer tries to create an aesthetic balance between the available sunlight and the strobe. Deep, dark or low visibility environments can make this balance more difficult, but the concept remains the same. Many modern cameras have simplified this process through various automatic exposure modes and the use of through-the-lens TTL metering. The increasing use of digital cameras has reduced the learning curve of underwater flash significantly, since the user can instantly review photos and make adjustments. Color is absorbed as it travels through water, so that the deeper you are, the less reds, oranges and yellow colors remain. The strobe replaces that color. It also helps to provide shadow and texture, and is a valuable tool for creativity. Underwater photograph using internal flash illustrating backscatter An added complication is the phenomenon of backscatter , where the flash reflects off particles or plankton in the water. Even seemingly clear water contains enormous amounts of this particulate, even if it is not readily seen by the naked eye. The best technique for avoiding backscatter is positioning the strobe away from the axis of the camera lens. Ideally, this means the flash will not light up the water directly in front of the lens, but will still strike the subject. Various systems of jointed arms and attachments are used to make off-camera strobes easier to manipulate. The subject is normally very close to the lens, and the available sunlight is usually not sufficient. There have been some attempts to avoid the use of flash entirely, but these have mostly failed. In shallow water, the use of custom white-balance provides excellent color without the use of strobe. In theory one could use color filters to overcome the blue-green shift, but this can be problematic. The amount of shift would vary with depth and turbidity , and there would still be a significant loss of contrast. Many digital cameras have settings that will provide color balance , but this can cause other problems. For example, an image shifted toward the "warm" part of the spectrum can create background water which appears gray, purple or pink, and looks unnatural. There have been some successful experiments using filters combined with the raw image format function on some high-end digital cameras, allowing more detailed manipulation in the digital darkroom. This approach will probably always be restricted to shallower depths, where the loss of color is less extreme. In spite of that, it can be effective for large subjects such as shipwrecks which could not be lit effectively with strobes. Although digital cameras have revolutionized many aspects of underwater imaging, it is unlikely that flash will ever be eliminated completely. From an aesthetic standpoint, the flash emphasizes the subject and helps separate it from the blue background, especially in deeper water. Ultimately the loss of color and contrast is a pervasive optical problem that cannot always be adjusted in software such as Photoshop. One of the pioneers of the traditional technique was National Geographic photographer David Doubilet , who used it to capture scenes above and below the surface simultaneously. Split images are popular in recreational scuba magazines, often showing divers swimming beneath a boat, or shallow coral reefs with the shoreline seen in the background. Normally an ultra wide angle lens is used, similar to the way it would be used in everyday underwater photography. However, the exposure value in the above water part of the image is often higher brighter than in the one underwater. There is also the problem of refraction in the underwater segment, and how it affects the overall focus in relation to the air segment. There are specialized split filters designed to compensate for both of these problems, as well as techniques for creating even exposure across the entire image. However, pro photographers often use extremely wide or fisheye lens that provides extensive depth of field - and a very small aperture for even more extensive depth of field; this is intended for acceptably sharp focus both on the nearby underwater subject and the more distant elements above water. An external flash can also be very useful underwater, on a low setting, to balance the light: David Doubilet explained his technique for split field images in an interview for Nikon Corporation. Underwater images are magnified by 25 percent, and the dome will correct for that. You also have to balance the light. I look for a light bottomâ€”white sand is bestâ€”or a light underwater subject. Of course, you need subjects that suit the technique.

Chapter 3 : Beginners guide to underwater photography|Underwater Photography Guide

Basic Underwater photography Everybody's a photographer these days, thanks to digital technology, greater accessibility to gear and training. That being said, you can definitely stand out from the crowd with outstanding underwater photographs.

For a quick summary of these terms, visit the Underwater Photography Glossary. Now that you know the basics, welcome to the world of underwater photography! You can always ask questions in our underwater photography forums. Ready to try underwater photography? Great, now you have an underwater camera and a housing, lets get in the water! But first, please make sure you are comfortable with your diving skills and buoyancy. Using a camera can be distracting, and it can be too easy for a new diver to crash into the reef, or worse, float to the surface without knowing it. Before going underwater, it really helps to use your camera indoors, in a dimly lit room. Take some photos with the camera inside the housing, macro mode, flash on. Take photos of some small objects, and see how your photos come out. Test out the range of the camera with macro mode on and off. The flash will add color to your shots, otherwise they will look blue. Learn how to turn macro mode on and off. You need to know the range of your macro mode. For most cameras this range will be inches to 2 feet 2. Further away, you must turn macro mode off. Further than 3ft, turn the internal flash off. Unless the subject is really interesting and fast shark, manta ray , I highly suggest getting within 3ft of the subject and using the flash. Otherwise, your photo will look blue. Use auto-white balance when you are using your internal flash. Use auto, aperture priority, or full manual mode, depending on your comfort level with camera settings. The reason why this is so important is because it affects how closely you can focus, especially in macro mode. The better strategy is to get closer to the subject. Try to get very low, at eye-level. Focus at the eyes. Try to get a photo of the subject facing you. Read more underwater composition tips. Read the manual white balance section. This diffuser will be placed in front of your internal flash and will soften the light. Make sure you use it. This works better for non-moving subjects. Read the underwater settings chapter for more info. Everything will work similarly to how it will work underwater, although indoors focusing will be easier, and your strobe will appear to be more powerful. Close-up shots in macro mode, forced flash, auto-white balance, spot-focus, with the subject no more than inches away. Aperture priority AV mode if available at F2.

Chapter 4 : PADI Digital Underwater Photographer Specialty Course - www.nxgvision.com

Even those with basic cameras and amateur photography skills can print photos that pop. Four Basic Editing Functions With so many cameras and editing programs to choose from, budding underwater photographers can end up with a real headache from pondering how to edit photos.

Agency affiliations may vary from yacht to yacht. Prices shown are for instruction only and are payable once onboard and the course is confirmed with the instructor. Certification issued from other agencies PADI, etc. Students must provide proof to their onboard instructor that they have their own personal copy of the required textbook and course materials or purchase them from their instructor prior to exiting the course. Includes all equipment and two open-water dives. Includes lectures, written and practical tests, check-out dives, scuba and personal diving instruction. Training conducted by professional instructors. This program is about avoiding, recognizing and solving problems on the surface and underwater. Rather it is a designation earned when diver completes 4 specialty courses and has logged a total of 24 dives. All of which can be completed on a typical one week Aggressor trip. Since guests are already doing these dives each week, and this new program creates a way to document those dives and offer credit for those dive experiences. This course provides the proper training and knowledge you need in order to safely explore a shipwreck. Enhance your dive trips! In addition, proper buoyancy control is the best skill for environmental protection. Your instructor will assist you in choosing the best courses for your experience level and conditions experienced onboard the yacht. Divers that have reached this level have combined the knowledge, skills and experience to truly call themselves Master Divers. Student may continue to dive Nitrox, using the Student Fill rate, the entire week once they have completed the course. Certification will be from a national certification agency. Minors must have this signed by a parent or guardian. The purpose of the Medical Questionnaire is to find out if you should be examined by your doctor before participating in recreational diver training. If you have questions, please consult with your physician. Serious medical conditions require a clearance letter from a physician. This is required by the certification agencies. Please present this letter to the onboard instructor prior to any course work. This is the responsibility of the student. To learn more, visit the following agency websites:

Chapter 5 : UNDERWATER PHOTOGRAPHY - Basic techniques

basic underwater photography Mila, now retired after a successful career in the corporate sector, devotes his time to writing, scuba diving around the world, underwater photography and speaking to groups about the growing need for ocean conservation.

However, shooting marine life underwater is not as easy as shooting on land technically in air , and even a simple point and shoot camera underwater requires a little extra thinking. The first step to understanding any kind of photography is understanding your camera. Many of these rules are related to composition in the underwater environment. Every photographer can benefit from proper composition, so it is also worthwhile to read the entire Composition Guide. The overarching mantra of underwater photography is to get close. Or, better phrased - "get as close as you think you need to get, and then get closer! Removing the amount of water between the camera and the subject will mean a clearer, sharper, and more colorful image. Additionally, in water, there are tiny floating particles that you might not notice until they show up in your images. We refer to these particles as backscatter. Minimizing the amount of water between your camera and your subject will also minimize the amount of backscatter in your images. Shooting down on the subject is often easier, as the reef is usually below us while we dive, but images of the tops of fish and coral are not interesting. Shooting up creates a more appealing view of your subject, and can create much needed contrast between the foreground subject and the background of your images. By shooting up, you can often also include the open water in the image, which is a better background for an image than a cluttered area of the reef. The image shot on a downward angle is not that effective This image, shot at eye level, is much more interesting. In wildlife photography, one of the most important rules is keeping the eye of the subject sharp. Notice how much impactful the side of the image where the hawkfish is making eye contact is than the side where the eye is turned around and "missing" 4 Keeping Yourself Focused Diving with a camera and diving without a camera are two totally different activities. After diving with a camera, you may find that those dives where you just cruised along casually observing the scenery no longer seem quite as fun. Patience is paramount in underwater photography. Waiting for your subject to assume the perfect position or letting other divers go by so that they are not in the frame are things you will have to get used to. The results can be worth it. This may be your single most important investment. Because of the way light penetrates water, many images look very blue without using strobes. Additionally, strobes freeze movement which helps avoid blurry images. Using a strobe can make all the difference 6 Shoot, Review, Adjust, Rinse, Repeat Sometimes we take for granted the shortened learning curve that digital photography has created by giving us immediate access to review our images. To an extent, the LCD screen on your camera may be its most important feature. Take advantage of this feature and take the time to review your images as you shoot to make sure your subject is well exposed, nicely composed and you are happy with outcome. Review every image if possible. New photographers may find it hard to understand how anybody ever acheived good results with underwater photography prior to the advent of the LCD screen. In fact, capturing good underwater images on film was indeed much more difficult than it is today. But auto settings can only get you so far in underwater photography. Make sure o-rings are clean and greased, but not over greased. One strand of hair or spec of dirt can be the difference between keeping the ocean out of your housing or flooding it. Assuming you are shooting in saltwater, rinse your camera gear off with fresh water after every dive. Never let salt water dry on your equipment. For more information on maintaining your underwater gear, read our guide to maintenance. Maintaining your equipment is part of being a successful underwater photographer Photo by Jeff Mullins 9 Respect the Environment Remember, we are priveledged guests in the underwater world. Respecting the environment and its inhabitants should be one of your top priorities. Before you start taking your camera underwater it is important to have excellent bouyancy skills, this will help protect both yourself and the environment around you. Keep all of your gear streamlined as to minimize the potential of a gauge or hose getting entangled or damaging the reef. Never harrass or touch marine life. You may not realize the damage inflicted from even minor touching. Be patient and let your images be the reward from your interactions. Start off with the basics, get a feel for it, and

learn the technical side later. Go get wet and enjoy yourself!

Chapter 6 : Underwater Photography Techniques

Basic Underwater Photography is a new book by Paul J. Mila, which offers a unique, non-technical photographic approach for divers who prefer enjoying their dives and taking photos without continually adjusting camera settings.

Since it almost took me two years to figure out what kind of gear I needed for starting my Underwater Photography Business, I thought I would share my experiences and what I learned, so that maybe I could cut your time down and you can get in the water faster. With all the gear out there these days it is so hard to make a final decision! I had no clue what I was doing! Tons of people will try to tell you what is the best and what is not, but every single person says something different. I am not an expert. I am not sponsored by any of these brands. This blog today is for the curious-and-needs-help-deciding kind of beginning photographer. Obviously, the budget may vary widely depending on who is reading this however when I bought my gear I had money saving items in mind. Wetsuitâ€" Ripcurl Because your body is in water the entire time you get colder way faster. If the wetsuit is for free diving then thats a bit of a different story and I will be covering that in the next couple posts. I grew up wearing a Ripcurl wetsuit in the cold waters of California and my first wetsuit lasted me years. Try it for yourself! But trust me when I say you get cold pretty darn fast! They are from Hawaii and are just so comfortable. If you ever go to Hawaii all the locals are wearing them. That says a lot! They also come in really cool and interesting colours. My feet have never hurt or got irritated with them. I use them all the time and they have just been really good! Did you know that there are chemicals in most sunscreen that damage the reef systems when they are washed off and into the sea? SunBum is from Hawaii and is free of those hurtful chemicals! Any reef-safe sunscreen is fine! If you have any more questions about the reef and sunscreen read about it more here. Having a watch always helps. It tells that tides and also the moon cycles. This will help those who are free diving by reefs or going surfing. Nothing is more cost wise than using what you already have! Mirrorless cameras are Compact System Cameras. Pretty much this means the camera are smaller but produce just as images imges. I love my mirrorless. You also save heaps on lens purchases. The kit lens that comes with the Sony a is the mm and I rather like it but sometimes I find it just a bit slow. I bought the Samyang 8mm Fisheye and really like it. But ita all about your style. Just make sure that whatever lens you buy it fit into your housing. If you want a zoom lens, try the Sony E PZ Different lens are so much fun to try. A well known Chinese company catering to the more economical customer when it comes to dive and surf housing. They also claim that the surf housing can go 40 metres underwater, but I do not have the balls to try it myself. Overall I am pretty satisfied with this housing. I have been told by several people who own them that they would never switch to anything else. I think you can find a few Youtube videos documenting and rating their Liquid Eye housing. They are just supposed to be great. They max depth they go is 10 metres. I hope you all liked this post and feel more confident with your purchases. The only thing that will happen is you will learn from this all. So go out there and give it a whirl. Please let me know if this helped or if you would recommend anything else.

Chapter 7 : Basic Underwater Photography Gear for Absolute Beginners | The Reef Girl

The Underwater Photography Guide is the world's first website to feature free tutorials on underwater photography, and has become the most trafficked resource on underwater photography worldwide. Bluewater Travel is a full-service dive travel wholesaler sending groups and individuals on the world's best dive vacations.

Now more than ever, some of the most incredible photos are popping up all over social media as people look to showcase their talents and adventures. Being full-time fish, Joey and I are not here to to give you tips on how to be a land photographers, so lets suit up in dive gear and take your picture taking talents underwater. May 17, at 7: Only by trying, failing, adjusting and then trying all over again, will you learn and improve your shots. Unlike land photography, taking pictures underwater is harder â€" but looking at the fantastic images that can be produced, it is well worth the struggle. Joey and I are no photography experts by any stretch of the imagination. Scuba diving is our first passion. But if you are new to the underwater photography scene, here are some beginner tips and tricks that will get you well on your way to bringing your camera to a place where most people would never dream of taking theirs. For those without a scuba diving certification; snorkel, free dive, and work on your breath holding skills. The ability to swim well, and in some cases fast, to catch up with a subject is a definite requirement. For scuba divers, getting that scuba certification is not enough, you need to make yourself a good diver first. Work on that neutral buoyancy, get used to bulky gear, figure out how to dive without needing your hands. Once you have mastered the art of being in the water only then should you think about accessorizing with camera gear! Start in a pool Can you say clear, calm and controlled environment? Make a local swimming pool your photography testing grounds. No matter how good of a diver you are, adding extra gear is going to cramp your style. Not only that but with photography there are so many different working parts to figures out, move, test, adjustâ€¦ By learning the ropes and practicing in a pool, you can quickly grasp the basics before jumping into the open water. Bring your gear, grab a buddy and dive into this prefect photography environment. May 24, at 7: Shooting through water is tricky because water filters out light, which in turn affects your pictures. Red, oranges, and yellows are the first colors to go followed by greens and purples. The last colors you lose is blue. A little light goes a long way in the underwater world. To bring back all the lost color and breath life back into your pictures, strobes are an absolute must when it comes to underwater photography. How do you choose what strobes to buy?? Sprout gills and stay underwater forever Just kidding, well sort ofâ€¦ Capturing breathtaking images on its own is challenging. Pair that with scuba diving and the task can almost seem impossible. As an aspiring underwater photographer, spend as much time as you can underwater with or without camera gear, so you can learn to multitask and keep safety a priority. A post shared by Dive Buddies 4 Life divebuddies4life on May 8, at 5: Subject proximity is a crucial part of underwater photography. As stated above, light disappears quickly under the waves, because water is times denser than air. Therefore the closer you are to your subject, the better said subject will look in your photograph. If you are using strobes getting nice and close will help capture the best detail and reduce the chance of backscatter. So move in as close as possible and fill your frame with the subject. Get low Perspective is everything when it comes to underwater photography. Anybody can go snorkeling and see the dorsal side of a fish. Captivating underwater pictures are taken when the photographer get eye level with a fish. When possible, get low and shoot from below looking up. This low positioning will create separation in your image, isolating your subject against the water column, as opposed to a jumbled mess where what you are photographing gets lost in the seascape of colors. As always there are exceptions to this rule. Sometimes when it comes to turtles, sharks and whales shooting from above onto a contrasting bottom or open ocean can be pretty spectacular. The dreaded image sorting and post-processing battle. Photographing in the underwater world is imperfect by nature. Most photographers have conflicting emotions when it comes to this stage of underwater photography and depending on who you talk to; everyone has a different opinion on which digital software is best. For us, the consensus is Lightroom and Photoshop. The software may seem tricky to master at first, but once you get the basics, these programs do a top notch job at photo touch-ups. Wrapping up underwater photography for beginners The world of underwater photography is a sophisticated yet rewarding

endeavor in which this guide only scratches the surface. A dirty little secret of any photographer is that no matter how many years you have been in the field or how elaborate your setup is, anyone with a camera is still always learning new tips and tricks on how to use it. Enjoy every second of your journey beneath the surface into the world of underwater imaging. For more advanced underwater photographers, what is your one favorite photography trick?

Chapter 8 : Underwater Photography Tips|Underwater Photography Guide

Well, you might be pleasantly surprised to learn that you can. And not only is it easy, its inexpensive as well! If this sounds interesting, read on. When most people purchase their Nikonos V system, they buy it with the standard Nikonos 35mm lens. This lens is very versatile and is an excellent choose for new and as well as experienced Nikonos users. One of the nice features of the 35mm lens, which will become important later, is that it can operate equally well above and below the water. One of the most satisfying forms of photography, and one of the easiest to master is that of macro photography. By inserting a dark, aluminum cylindrical tube between the camera and the lens, the photographer effectively extends the focal length of the lens. This drastically reduces the focusing distance in front of the lens and enables the photographer to get very close to the subject, producing images of small subjects otherwise not possible. Extension tubes come in a variety of sizes. The longer the tube, the longer the focal length and, consequently the closer the focusing distance, the greater the reproduction ratio is produced. Most common extension tube kits come with tubes that produce image to subject ratios of 1: Most extension tube kits usually include a set of wire framers. These framers attach to the end of the extension tube with a small knurled nut and are used by the photographer to help frame the subject properly in the photograph. Underwater photographers use the 35mm or 28mm lens in conjunction with the extension tubes to produce excellent macro results. When your done with diving is macro photography finished as well? The answer is NO! Since the 35mm lens is amphibious, it makes sense to assume that macro photography can be accomplished on land as well as underwater utilizing the same lens and extension tubes. In fact, all that is needed is a new set of land calibrated framers. Since the optics above the water are different than below, the framer must be of a different size and length to adjust for a different focusing distance. The land framers are usually "blue" in color where as the underwater framers are "black". Since most underwater photographers use their extension tubes for underwater photography, they usually do not keep their blue land framers in with their other underwater photo equipment. Because of this, some people including myself have in the past grabbed the wrong set of framers when faced with a great photo opportunity and used the "black" underwater framers instead of the "blue" land framers. Macro photography is popular with many photographers, including novices, since it is relatively simple to set up. In fact, the controls on the camera and the strobe are preset to ensure proper exposure and focus. The Camera Settings are Listed Below: Ensure that the film speed dial is set to match the speed of film you are using. ISO 50 or 64 film is good film to start your macro work with. These films offer very high resolution with little grain. ISO 25 film offers even sharper images, but often requires the use of more powerful strobes. ISO film is also acceptable for macro work. This is done to gain maximum possible depth of field since the use of extension tubes dramatically reduces the depth of field range. The camera lens should be set to its minimum focusing distance 2. Position the strobe directly over the camera view finder. You are now ready to begin shooting macro! Surface macro photography can include a variety of subjects. Insects, small amphibians and flowers are some of the more popular. Jewelry, coins and other small valuables can also be effectively photographed. Of course, the set of subjects is limited only by your imagination. Insects, in particular, are fascinating subjects for land macro photography. Often as elusive as gobies on a coral head and as colorful as the most beautiful shrimp, these creatures make for challenging subjects. Some framers come with removable ends so that the photographer can better control the shadows as well as the subject he is pursuing. Occasionally, a photographer will remove the framer completely, or modify the framer to be non threatening to the subject. Of course, part of the fun of photography is overcoming these challenges. Some insects are too large, even for the 1: Large moths and butterflies, for instance, may require the use of the Nikonos Close-up lens, which can allow for 1: This lens also works in conjunction with the 35mm and, thus, is capable of surface photography as well as underwater work. The world of insects and other small land animals can be just as fascinating as the miniature world of the coral reef. And when the diving is done, load up some film and journey out into the wilderness of your

own backyard. You will be pleasantly surprised by what you find there Mystical sea creatures, vibrant colorful reefs, or haunting wrecks from a bygone era, the DC is the camera to catch them all. SeaLife eliminated the typical button cluster on the back of the camera, in favor of five thumb operated "piano key" controls. The large shutter button extends forward with a fingertip-control lever that allows scrolling through menus or zooming in and out without releasing your grip from the camera. This "Central Command Lever" and the "Piano Keys" are making great underwater pictures and videos easier than ever before. Automatic focus from 4" to infinity. Depth tested to ft. Fully rubber armored for shock protection. Full 1-year warranty covers the underwater housing and camera. SeaLifes Sea Modes which have built in color correction and External Flash Modes for vibrant color and manual control of the cameras shutter and aperture, round out the DC

Chapter 9 : Top 10 Basic Principles Of Underwater Photography

The most comprehensive instructional VHS video for the beginning to intermediate underwater photographer. Youll be taken through your first moments with your Nikonos V.