



UNDERWATER PHOTOGRAPHY

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Non-divers are always amazed to see the brilliant colourful images of the underwater world. So much beauty hidden below the surface for only a few to see. For photographers the reasons for wanting to record these underwater images are many and varied. For some it is a chance to share this unique underwater world or just another extension of their diving interest.

Choosing what camera equipment to use is more involved than above-water photography and there are many aspects that need careful consideration before any equipment is purchased.

You need to consider your budget as well as future requirements and ambitions. Most photographers don't start off with all the equipment they would like, but gradually build it up over the years, upgrading as experience, finances and needs dictate.

It is important to be a competent scuba diver with a reasonable amount of experience underwater first. Once you are familiar with your buoyancy control, dive computer and other equipment then the addition of a camera will enhance any dive.

Digital cameras mean you are no longer limited to just 36 exposures on a dive. Another big advantage is being able to view your photographic results underwater to check your images are okay.

Before purchasing your camera it's a good idea to see what underwater housings are available for the model of your choice. Housings are basically waterproof cases (some people refer to them as lunchboxes) to put your camera into. Each housing is made to fit a different type of camera and there are many to choose from to suit all price ranges.

Most housings will have buttons or levers so you can control all your camera functions while you are underwater. Remember you get what you pay for and if you buy a cheaper housing it may not give you the ability to change all your settings underwater, it may not last as long and may not be suitable on deeper dives.

The most important use of the housing is to keep your camera dry. O-rings are designed to keep water out by sealing any gaps between moving parts and the housing's body. The main O-rings between the housing and the backdoor and between the housing and the port, need regular cleaning and greasing (if specified by the manufacturer). Most importantly you need to check the O-rings are sitting in the appropriate grooves as any kink will cause a leak.

Above water, housed cameras may feel bulky, awkward and heavy but are weighted so that in the water they become neutrally buoyant and easy to manoeuvre.

Housings for non-SLR cameras usually include a port, the piece that covers your lens.

For SLR cameras you'll need to consider what lens to use before purchasing a port to suit it. Most manufacturers will advise what size port will fit what lens.

To begin, macro lenses are ideal especially if the underwater visibility isn't good. Many macro subjects are very colourful and don't move a lot. Don't just take one picture though but try different angles. Macro lenses are also good for portraits of divers and fish as well as tiny subjects measuring less than 5cm. Point and shoot cameras often have an excellent macro function.

Most photographers use from 50mm to 100mm lenses for macro photography. The 50mm is more suitable in dirtier, greener water, such as usually experienced in New Zealand.

For a wider angle lens a 12-15mm lens makes a great accessory. Using a wide angle lens underwater enables you to get closer to your subject while getting more in. The less water between you and your subject the better. This will allow you to light the subject while still getting a good background.

A wide angle lens is also great for using in natural light, especially on days when there is plenty of sunshine. Large subjects such as dolphins and whales may be better shot in natural light where you can shoot faster and when the subject is too far away to reach with your strobe light.

Once you have decided on the lenses you wish to use you will need to buy the correct port. The port sits on the front of the housing over the lens. Ports are available in different lengths to accommodate the different sizes and types of lenses.

There are two types of port, flat or dome. A flat port is usually used with a macro lens such as a 50mm, and will magnify the subject underwater causing it to appear larger and closer.

The dome port is used more with a wide angle lens. Some zoom lenses may require a diopter but manufacturers will advise if needed.

To show the bright colours of marine species an underwater strobe or light is needed. At depth colours are filtered out as sunlight is diminished. Red is the first colour affected.

A hot-shoe is fitted inside the housing which has a sync cord to attach to your camera. This hotshoe has a fitting on the outside where an underwater strobe can be connected.

Strobes can include features such as TTL, half power and manual to give you more options. Many also have an internal aiming light to help position the strobe correctly.

You need to set your shutter speed to sync with your strobe. Most camera have a maximum sync speed of between 125th and 250th of a second. There are many to choose from to suit all photographers and their pockets.

Some strobes come with a diffuser and many point and shoot camera housings include a diffuser. This makes the light less intense and avoids white hot spots.

A second strobe can be either connected through a T connector or can be used as a slave. A slave contains a sensor and as soon as the first strobe is fired it will fire simultaneously.

This is so quick that both strobe lights will be registered. Bright sun's rays shimmering through the surface can also cause the slave to fire, or other photographers flashes.

Before heading out in the water check those o-rings are properly in place. Check you have enough battery power in your camera and strobe and sufficient space on your memory card. Once you have your equipment ready, take a test photograph and check that all is working okay.

A safety strap can be attached to the camera housing and your wrist as a precaution against losing the camera in deep water.

Not all underwater photography needs to be done on scuba. Many photographers start off by snorkelling, or may just want a way to keep their camera dry while surfing, white water-rafting or boating.

Even for experienced above-water photographers there is still much to learn about taking photos underwater as it is a totally different medium. Conditions in the sea are not always ideal with swells, low visibility and limited time all cutting into your photographic time. Once in the water you need to think about your own safety first i.e. currents, diving times and air consumption, as well as trying to work out the camera settings and placement of your strobes.

The rules of photography are much the same underwater as above in relation to composition, lighting and focus.

After diving more maintenance is needed, firstly with a thorough wash in fresh water after any salt-water immersion, moving controls to get rid of any salt particles. As with topside photography back up all your images.

Hard photo cases are available for carrying equipment and most of these are waterproof and ideal for protecting your valuable and fragile camera gear on boats in rough conditions. These cases are also perfect for carrying camera equipment when travelling on planes to other diving destinations although weight and size restrictions need to be considered.

If all this does not deter you and you still decide to have a go, the rewards of getting those great underwater images will be make it all worthwhile.

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