



PHOTO MASTERCLASS PART FIVE

in association with
TAMRON®

UNDERWATER PHOTOGRAPHY



This issue, we plunge into a completely different element – water. The sea is one of the most challenging places to get great photos, but don't be put off. Small waterproof digital cameras are increasingly available and with our experts' advice your efforts will be more than rewarded.

WITH WILDLIFE PHOTOGRAPHER MARK CARWARDINE

TAKING GREAT WILDLIFE pictures on land is tricky enough, but diving beneath the ocean waves introduces a whole new set of trials and tribulations. Your equipment gets wet and encrusted in salt, the light can be terrible or overwhelmingly blue and you frequently have to shoot through a veritable soup of sand, mud, floating vegetation, animal droppings and fish dandruff. It's impossible to change lenses underwater and since long telephoto lenses are completely out of the question, you have to get exceptionally close to your subjects. There is no way of using a tripod and yet you are often being tossed around by waves and currents. And to add insult to injury, the best equipment, as underwater photographers frequently joke, costs roughly the same

as normal camera equipment but with an extra decimal point in the price.

But don't despair. With recent advances in technology and more diving and snorkelling opportunities than ever before, underwater wildlife photography is now within reach of almost anyone with enough determination and patience. You don't need the best equipment to get started and there are some fabulous underwater wildlife subjects surprisingly close to home. Most importantly, the satisfaction of obtaining a colourful close-up of a starfish on a coral reef, a loggerhead turtle silhouetted against a spectacular sunburst or even a wide-angle shot of a basking shark makes the effort more than worthwhile.

▲ Southern stingrays in shallow waters off Grand Cayman in the Caribbean, an area known as Stingray City. Underwater specialist David Doubilet is famous for his black and white photography, which often captures the mood and power of the scene better than full colour.



MEET THE EXPERT...

Every issue, our world famous photographers share their knowledge and skills.

DAVID DOUBILET USA

Underwater photographer David Doubilet has photographed more than 60 stories for *National Geographic* and is an Honorary Member of the Royal Photographic Society.



David Doubilet began shooting underwater at the age of 12, with his camera inside a rubber anaesthesiologist's bag borrowed from his father's hospital. "Unfortunately, we forgot to remove all the air," he laughs, "so it was like diving with a giant puffer fish."

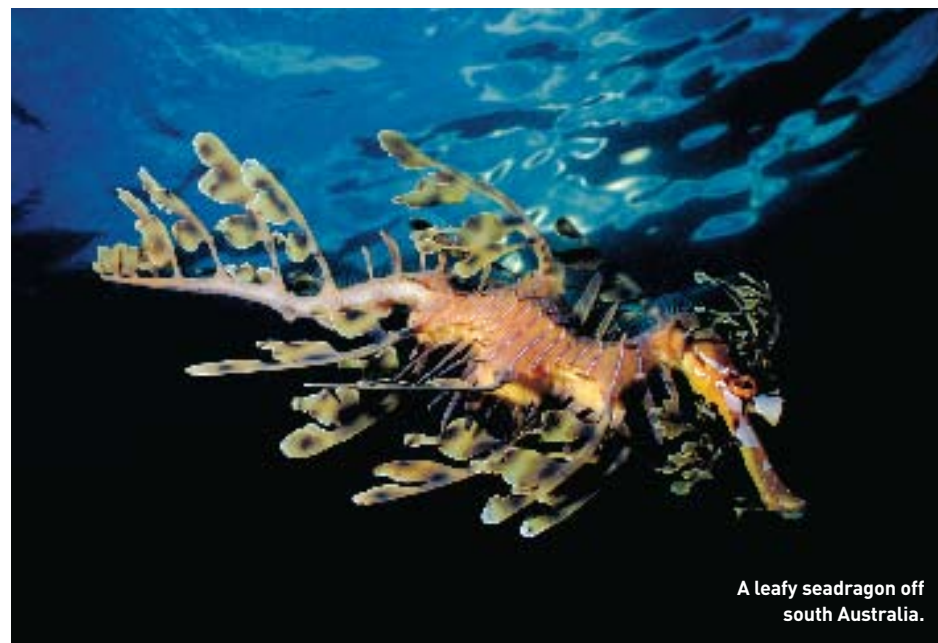
His first shoot for *National Geographic* was in 1971, when he produced a story on garden eels in the Red Sea. Nearly four decades later, David is as enthusiastic as ever about his life's work. He typically spends about 100 days a year taking underwater pictures and never dives without a camera. "I couldn't bear to miss a wonderful shot," he says. The final image is often the product of serendipity, but he does a huge amount of research beforehand and often has a particular image in mind.

"The sea is the most colourful place on the planet – but black and white imagery is more elemental, emotional and dramatic."

David loves to capture the feel of natural light near the surface and to be equally artistic in the darker depths. "I don't like the idea of firing a flash like a member of the paparazzi and will often work with three different strobes to achieve a more pleasing result. Subtle illumination, perhaps with a little rim lighting, can really make a picture."

His great passion is black and white imagery. "I began as a black and white underwater photographer and I am now working on some personal projects using the same medium," he says. "The sea is the most colourful place on the planet – nowhere is more bright and vibrant than a coral reef – but black-and-white imagery is more elemental, emotional and dramatic."

David Doubilet's top underwater photography tips



A leafy seadragon off south Australia.

1 Be intimate with your subject

Your aim should be to capture the essence of the creatures you are trying to photograph. Understand their lives and habits and look them in the eye. It sounds like a cliché, but you really can tell if a photograph has been taken by someone who is emotionally detached or unsympathetic towards an animal.



Orange anthias fish on a Red Sea coral reef.

2 Look how lighting works

Lighting is important in all forms of photography, whether in portraiture or landscapes, but underwater it is everything. Never stop thinking about the quality of light and learn to understand how it can be used or improved in your pictures. A slight change in position or timing or a burst of artificial light can make all the difference.

YOUR STEP-BY-STEP GUIDE...

Mark Carwardine shows you how to apply the theory to get the perfect picture.

1 GET CLOSE



- » **Get close** to your subject – it's the cardinal rule of underwater photography. It's simple: the less water you shoot through, the better your pictures will be. Whatever you are photographing, the colours will look snappier and your subjects will appear sharper.
- » **Experiment with the widest lens** you can afford, but avoid the panoramics favoured by land-lubbing photographers. Use the wide-angle in an entirely different way by shooting big subjects such as turtles, seals, manatees, whales or even sharks from just a metre or two away.

2 GET EVEN CLOSER



- » **Try using a macro lens** and get even closer to your subjects. Known as the 'anywhere, anytime technique', macro is one of the easiest forms of underwater photography. There are many potential macro subjects – considerably more than underwater 'big game' subjects – and they rarely try to flee. What's more, they can be snapped even in less-than-perfect water conditions.
- » **Look for details** in medium-sized creatures or capture some of the smallest in extreme close-up. The best macro images show vibrant colours, breathtaking detail or beautiful and bizarre patterns.

3 FILL THE FRAME



- » **Think big.** Remember that everything underwater appears both larger and a third closer than it really is – an illusion that ruins many underwater pictures. The secret is to get into the habit of checking for 'empty' space around your subject and then getting in close enough to make the animal dominate the image.
- » **Try not to pay all your attention to the centre of the frame** – a natural mistake – and concentrate on the picture as a whole. Your shots will be more artistically composed and they will have greater impact.

4 STAY CALM



- » **Don't get swept along** in all the excitement of a spectacular dive or snorkel and make simple errors that can ruin your shots. Spend time looking for subjects in good condition (for example, try to notice if a starfish has an arm missing) and pause to think about the background. If you're photographing an animal in mid-water, one solution is to shoot at a slightly upward angle, which ensures a beautifully clear blue and uncluttered background.
- » **Avoid any sudden movements**, which may frighten your subjects, and breathe slowly and evenly.



PHOTO MASTERCLASS UNDERWATER PHOTOGRAPHY



ESSENTIAL KIT... DIGITAL COMPACT CAMERA

Professional underwater photographers tend to use high-end digital SLR cameras inside tailor-made waterproof housing, but the housing can be cumbersome and may cost as much as the camera. Fortunately, there are two excellent alternatives: an amphibious compact camera or waterproof housing for a normal compact camera.

WHAT TO LOOK FOR:

- » **Simplicity.** Keep it simple so that you can focus on your diving or snorkelling and on the artistic side of your photography instead of worrying about the camera controls.
- » **Maximum depth.** Some cameras will leak if they are taken too deep – so check that the specifications suit your requirements.

CHEAPER ALTERNATIVES:

- » **Protect your camera in a made-to-measure waterproof bag** (available from most specialist retailers) that allows you to shoot through an optical-grade glass port.
- » **Try an inexpensive single-use underwater film camera** – the quality isn't brilliant and it can only be used in shallow water, but it's a great way to get started.

DOS & DON'TS

- » **DO be comfortable in the water** in order to concentrate on your photography instead of your diving or snorkelling technique.
- » **DO practise using your camera** before jumping in to avoid missed opportunities underwater.
- » **DON'T despair with the steep learning curve** – underwater photographers often have disappointing results in the early days, but it's worth persevering.

In association with **TAMRON**



Tamron SP AF 11-18mm F4.5-5.6 Di II Compact in length, this ultra wide angle zoom gives outstanding optical quality. Designed for exclusive use on digital cameras.

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MASTERCLASS CHALLENGE UK...



The UK's marine life is easy to photograph when rockpooling or snorkelling, says **Paul Kay**. All you need is a compact waterproof camera and a calm, sunny day.

Mussels

Mussels are found on rocks all around Britain's coasts. Young mussels are colourful though still small in July, and are best photographed with their shells open when feeding. Those found onshore are closed up, but in rockpools open mussels can be seen filter feeding. Selecting the right group of mussels is the key to producing a pleasing image.



Anemones

Beadlet anemones are the commonest species in rockpools. Photographing them is a matter of searching for an individual with its tentacles expanded, preferably on a background that shows it off well. Expanded specimens are always submerged, and as a low angle is often best, this may mean lying in a rockpool with your camera in a waterproof case.



Shore urchins

The shore urchin likes to drape itself with camouflaging bits of shell and small pebbles. As these are an integral part of how the creature lives, it is important to include them in your photograph – they will make the image more interesting. Urchins photograph best from the side, so get down low to find a suitable angle.



Hermit crabs

Hermit crabs take fright easily, but if you are patient and approach them slowly, they recover their composure and adopt a pose where they can be seen easily, along with the shell they inhabit. Photos from above are rather strange and disorientating, so hermit crabs are best shot face-on with your waterproofed camera resting on the rockpool bottom.



MASTERCLASS READER PHOTO OF THE MONTH

Now it's your turn. Use all our experts' hints and tips to take the pictures recommended by Paul Kay. Upload them on our website and they could be published in *BBC Wildlife*. Don't try to exactly replicate Paul's images, just use your new skills to take a picture of mussels, anemones, urchins or hermit crabs.

HOW TO ENTER

Log on to www.bbcwildlifemagazine.com and click on Photo Masterclass, then follow the instructions to upload your images. Closing date: Wednesday 5 July.

RULES 1) The competition is open only to amateur photographers. 2) Up to two entries only per category. 3) Entry of a picture constitutes a grant to BBC Worldwide to publish it in all media. 4) Entries will be judged by *BBC Wildlife*. 5) The winning image will be published in the September issue. 6) No correspondence will be entered into and winners will not be notified. 7) Entries will not be accepted by post or email.



'PLANT PORTRAITS' WINNER: IAN PHILLIPS

The entries in this masterclass were excellent, but we chose Ian's picture of wood anemones for its delicacy, clarity and perspective. Visit our website (see left) to enjoy the other fantastic entries in this class.