

Macro Matters March 2014

Life In a
ROCK POOL

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Life in a rock pool

A rocky shoreline provides the perfect habitat for photographing the small and delicate forms of intertidal marine life. **Robert Thompson** says an understanding of the seashore and the species to be found in rock pools is essential to making success photographs



Common starfish (*Asterias rubens*) This species is widespread throughout the British Isles and occurs in rock pools and on beaches
Nikon D3X, Nikkor 105mm f/2,8 macro, ISO 100, f/16, flash

Macro Matters

Those living in the British Isles are fortunate to have such an exceptional coastline. Yet despite its popularity as a photographic destination, the marine life on the seashore is one of the least photographed parts of this remarkable ecosystem. I have always had an interest in the seashore from an early age – my family only lived a short distance from the coast and my parents would make frequent visits during the summer months when the weather was agreeable. As an enthusiastic and inquisitive eight-year-old armed with a net and bucket, I would often pass the day paddling around in the rock pools looking for something I could catch. Those early days were the first encounters I had with rock pools and the creatures that inhabit them. Now, as a parent myself, I find history repeating itself and it is my younger two children who do the exploring and the dipping.

Subject abundance

Coastal rock pools are something really special that appeals to people of all ages. They are the ocean's portholes, or mini aquariums, allowing us a glimpse into a microcosmic world of exquisite beauty. Anemones, starfish, blennies, crabs, and

Beadlet anemone (*Actinia equina*) This is a pretty common anemone usually anchored to rocks on the shore. When out of water anemones retract their tentacles and appear as a red jelly-like blob

Nikon D800, Nikkor 105mm f/2.8 macro, ISO 100, f/16, flash



many other small creatures cloaked in a variety of seaweeds and algae offer the macro photographer an abundance of subject material throughout the seasons.

The shoreline is a challenging environment to work in, the weather is not always sympathetic, and equipment is exposed to more hazards than normal – drop a lens or a flash unit here, and it is likely to be a write-off. Perhaps these are some of the reasons, along with a limited knowledge of the marine environment that makes it less popular among macro photographers. Having said that I would not call myself a dedicated practitioner of seashore photography, but during the autumn and winter months when things are that bit quieter and the tides suitable I like to get out whenever I can.

My last major publication *The Natural History of Ulster*, which I co-authored with John Faulkner, had a lengthy chapter devoted to the sea with a section on the seashore and rock pools. That particular chapter was indeed challenging, to say the least! I had many dawn rises (something which I am not that enthused about) during the winter months to reach the selected destinations with my fellow marine biologists who were there primarily to help locate the target species. Standing on a rocky shore peering at the Atlantic in Donegal on a cold January morning – hands partially anaesthetised with cold is definitely out of my normal comfort zone. Despite the early starts and less than ideal conditions at times, I consider myself very

Above: Rock pools on the Atlantic coast in County Donegal. The north and west of Ireland has some of the finest examples of rock pools anywhere in Ireland and an abundance of marine organisms to match. However the weather systems from the Atlantic often make it a challenging place to photograph
Nikon D3X, Nikkor 24-70mm f/2.8 zoom, ISO 100, f/16, flash

fortunate to have worked with some of the best marine biologists in Ireland.

To capture the beauty and behaviour of these amazing creatures, an understanding of the seashore, the animals and plants that exist in this environment is essential if they are to be photographed successfully and correctly. My photography and knowledge benefited greatly from their advice and expertise.

Planning & tide times

The main inconvenience of working on the seashore is the changing cycle of the tides, which can often mean very early starts or working late into the evening at particular times of the year. Planning and researching an area in advance is essential for this type of photography – you don't just turn up and leave everything to chance. Not every coastal habitat supports rock pools; therefore some exploration of your area is necessary to locate a suitable rocky shoreline that contains the appropriate habitat. Also, checking the tide times for low water in your area is a must or you run the risk of a wasted journey. You need to be there well before low water and work your way down the shoreline with the receding tide.



Left: Squat lobster (*Galathea squamifera*) This is a photogenic species that usually remains hidden under stones and also among seaweeds
Nikon D3X, Nikkor 105mm f/2.8 macro, ISO 100, f/16, flash

“It is a good idea to start with some of the common occupants such as anemones, starfish and crabs. This also provides the opportunity to refine your techniques”

Below: Purple sea urchin (*Paracentrotus lividus*) One of the most attractive of the sea urchins, sometimes found under boulders and in rock pools
Nikon D3X, Nikkor 105mm f/2.8 macro, ISO 100, f/16, flash



The most interesting and productive part is the area at the low waterline. The seashore is not a static environment but one in a constant state of flux. Most places have two high and two low tides within a 24-hour period. The area between high and low water level is called the inter-tidal or littoral zone. Tides are heavily influenced by the relative position of the earth, moon and sun to each other, which changes on a daily basis. The most productive tides for rock pool photography are spring tides; they have the greatest variation between high and low water. Neap tides have the least variation between high and low water and are therefore generally less productive.

Spring tides occur throughout all of the seasons and are not confined to spring, although some of the lowest tides occur during the spring and autumn equinoxes. Confusing, isn't it? During a large spring tide, more of the

shore bottom is exposed revealing many other animals and plants that would not normally be seen. Planning a visit to coincide with a spring tide, or after a storm is often a very productive time – many creatures are often washed up on the shoreline.

Waterline & depth

Rock pools exist in all manner of shapes, sizes and depths. Those pools that are close to the high waterline are generally not suitable – many suffer large fluctuations in temperature and usually contain little in the way of interesting subject material. Also, pools at the extreme end of the shoreline, (although rich with marine life) are generally cluttered with seaweeds and too deep to be useful photographically. It is often the small shallow pools, which lie in the middle, or near the lower shoreline that are the most suitable.

Water depth is also a critical factor – pools several centimetres deep are ideal. Diffraction and illumination are a problem when you work in deeper pools. I tend to target those that have a light-coloured encrusting alga on the rock rather than those that contain large areas of seaweed or exposed rock. A lighter background will naturally reflect more light upwards.

Another problem is surface reflection of the sky. A polarizing filter will overcome this to a point, but at the expense of losing two stops of light, which will effect your exposure. I tend not to use this filter. A large matte board or black umbrella will reduce the surface reflection and any generated by the camera. A clear sunny day provides the ideal conditions and small shallow pools are usually very evenly illuminated and clear from visible reflections. Wind is another major annoyance and creates ripples on

the surface. A simple frame, which floats on the surface usually, resolves this problem.

I seldom use natural light as the major light source and prefer flash to arrest movement – it also helps deal with the surface reflections to a point. Flash units, if attached to the lens, are likely to create flare on the surface of the water. Some experimenting is required to ascertain the ideal position, which is about 45 degrees to the surface. With rock pool photography, you are essentially limited to shooting subjects directly overhead. Keep disturbance in the pool to a minimum and carefully remove any small bits of floating debris.

Despite the inconvenience and initial preparation required, rock pool photography can be a rewarding experience – you get to see and photograph a whole new range of subjects from a completely different environment.



Above: Sea slug (*Coryphella lineata*) Unlike their terrestrial cousins, sea slugs or marine molluscs are extremely colourful and very photogenic

Nikon D3X, Nikkor 105mm f/2.8 macro, ISO 100, f/16, flash

Right: Shanny (*Lipophrys pholis*) This is a common little fish frequently seen in rock pools and also found under stones at low tide. It can be photographed in or out of water. They can change colour to blend with their environment

Nikon D800, Nikkor 105mm f/2.8 macro, ISO 100, f/16, flash



A fragile environment

Rock pools are extremely fragile environments. Even when exercising due care, delicate organisms are still easily damaged. When turning over stones looking for specimens, always replace them in the same position. Many organisms attached to the rock would become stressed, or even die if left exposed for any length of time. The majority of your subjects naturally look their best when in water, but not every subject that you may find among the stones belongs, or inhabits a rock pool.

It is a good idea to start with some of the common occupants such as anemones, starfish and crabs. This also provides the opportunity to experiment and refine your techniques. We can all get enthusiastic and carried

away, but be mindful of your time with subjects as they can become stressed if being handled for long periods of time. Be also aware of your own safety and where you place your equipment – you don't want to see it floating towards you on an incoming wave! Always keep in mind as nature photographers we have a duty of care and the welfare of the subject comes first. Animals, which show signs of stress, will always be apparent to those who understand their biology and ecology. 

Useful links

<http://www.habitas.org.uk/marinelife>

<http://www.britishmarinelifepictures.co.uk>

Robert Thompson is an accomplished natural history photographer, writer, and naturalist living in Ireland. He is an acclaimed macro specialist and author of a number of books on natural history and photography. His work is widely published in the UK, Ireland and internationally. To view more of his work, visit: www.robertthompsonphotography.com