The eyes have it

by Phil Rudin

The debate regarding the original source of the phrase "The eyes are the window to the soul" has raged on for decades, perhaps centuries. Over the years it has been attributed to Shakespeare and DaVinci while others believe it dates back to the Old Testament of the Bible. The human eye beyond just its aesthetic qualities is integral to non-verbal communication and is a source of self-expression. Even the most mundane portraits can be mesmerizing if the eyes captivate.

Ask any aspiring portrait photographer what the key essential is for a compelling image and the answer will surely be to making the eyes "pop".

The same key essentials are needed for marine animal portraits as. Many of the key techniques used by portrait photographers carry over into the underwater world when photographing eyes.

Marine animals have some of the most photogenic and unusual eyes of any of animals on the planet.

In this article I will describe some of the essential elements for successful marine animal eye photography.

Along with the normal list of challenges associated with underwater photography it is worth remembering that unlike photographing humans, most marine animals have little interest in cooperating with the photographic process.

Some animals like Frogfish will sit motionless while being photographed but others like Seahorses tend to continually turn away from the camera lens testing the photographers patients and resolve.

Spending time underwater and observing the animals you intend to photograph allows you to have a better idea of how animals will reacted when being approached and photographed.

Success is all in the eyes

The main ingredient for successful eye portraits is eye contact and sharp focus.

In the child's portrait taken at a temple in Victoria Point, Myanmar (Burma) the little girl was looking directly into the camera lens.

My intention was to capture a unique and compelling portrait highlighting the yellow paste called Thanakha.

Thanakha is pounded from tree bark and has been used for centuries in Myanmar by both males and females as a sun block and cosmetic to enhance personal beauty.

The focus point for this image was directly on the child's eyes. I used an aperture setting of F/4 to defocused (also known as Bokeh) the background sufficiently to allow the child to "pop" or separate from the background. A strobe was used for fill light and to create a catch light making the child's eye look more alive. I used all of the same techniques for the Spotted

Burmese Child, Victoria Point, Myanmar (Burma), Olympus E-1, Olympus 11-22mm zoom at 21mm, ISO 100, F/4, 1/50sec, Olympus flash fill

Spotted Garden Eel, Panglao Island, Bohol, Philippines, Olympus E-M5, Olympus 60mm macro, ISO 200, F/22, 1/250sec, Nauticam housing, two Inon Z-240 strobes

Garden Eel portrait taken around Panglao Island in Bohol, Philippines using a macro lens.

The techniques include compelling eye contact, a sharply focused eye, fill flash, separation from the background and vertical (portrait) composition to more fully fill the frame with the subject.

Other elements include the slight turn of the Eel's head towards the camera lens, the diagonal angle of the Eel through the frame and the rule of thirds to place the eye in a pleasing location within the frame.

One element not found in the Eel photo is catch lighting in the eye. Many marine animal eyes simply don't reflect light in the same way the human eye does while others will reflect light much like the human eye.

Since marine animals don't have eyelids many of the eyes appear larger because more of the eye is exposed. I cannot stress enough how important eye contact and sharp focus are to a successful eye portrait, I always know as soon as I view an image if I have failed to capture these key elements.

Essential equipment

While wide angle and fisheye lenses have been used for stunning photographs of large marine animal eyes the lions share of marine animal eye portraits are, taken with macro lenses.

Dedicated macro lenses in the 30mm to 60mm range are commonly used for larger more approachable subjects while lenses in the 85mm to

150mm range are used for smaller less approachable subjects and super macro subjects.

Some telephoto and "kit" lenses like the Olympus 12mm to 50mm and APS-C lenses in the 18mm to 55mm range are also frequently used by those not owning a dedicated macro lens.

Other key essential include a modern camera body with fast auto focus and no shutter lag, closeup lenses for magnification beyond life size (1:1) and a large viewfinder.

For macro I prefer to use a 45 degree finder to help get me on eye level with my subject and to keep me above the subject and off the bottom. A

Harlequin Ghost Pipefish, Puerto Galera, Philippines, Olympus E-M1, Olympus 60mm macro, ISO 100, F/13, 1/320sec, Nauticam housing, two Inon Z-240 strobes

decent quality focusing light is also helpful. I have activated the rule of thirds grid in my viewfinder to help position the eye within the frame.

Photographing marine animal eyes with a macro lens often involves getting the photography equipment very close (some times within millimeters) to the subject. This technique requires a great deal of practice and should not be attempted

Clownfish Eggs, Puerto Galera, Philippines, Olympus E-M1, Olympus 60mm macro lens, ISO 100, F/13, 1/320sec, Nauticam NA-EM1 housing, two Inon Z-240 strobes, SAGA +15 closeup lens

Octopus Eye, Blue Heron Bridge, Florida USA, Olympus E-M5, Olympus 60mm macro lens, ISO 200, F/5.6, 1/250sec, Nauticam housing, one Inon Z240 strobe, SAGA optical snoot, converted to B&W in Photoshop

by those photographers who have not yet fully mastered basic macro photography.

Regardless of how compelling a photograph may be it is not worth risking damage or injury to an animal because of poor photographic technique.

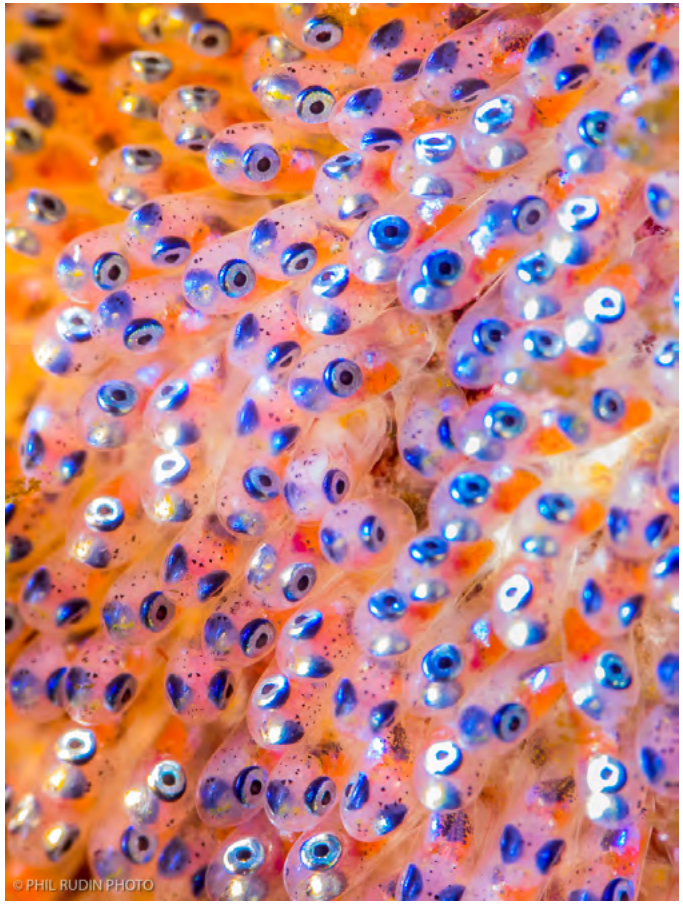
Tips for success

Most eye portraits rely heavily or entirely on strobe lighting and some may require accessory closeup lenses for added magnification of the eye within the frame.

For the photo of the Clownfish Eggs taken in Puerto Galera, Philippines I used an Olympus 60mm (120mm equivalent) macro lens and a SAGA +15 closeup lens.

Because these eggs are so small I needed to exceed life size (1:1) to fully fill the frame with the nearly mature eggs. Because depth of field is so shallow with this amount of magnification keeping the lens in a flat plain the eyes is quite challenging.

For most macro work I use a base ISO settings in the 100 to 200 range this ensures optimal image quality particularly with sub-full frame sensor cameras.



Because most macro subjects require strobe lighting I frequently use shutter speeds in the 1/125 to 1/320 second range for best results. I generally use two strobes placed fairly close to the macro port. This offers the greatest flexibility for lighting techniques such as backlighting, inward lighting, overhead lighting and more.

I also use single and twin strobe configurations with snoots (snoots reduce the angle of strobe coverage) for side lighting, backlighting, overhead lighting and more. I always have a focusing light attached to my housing to assist in low light situations where auto focusing begins to slow down.

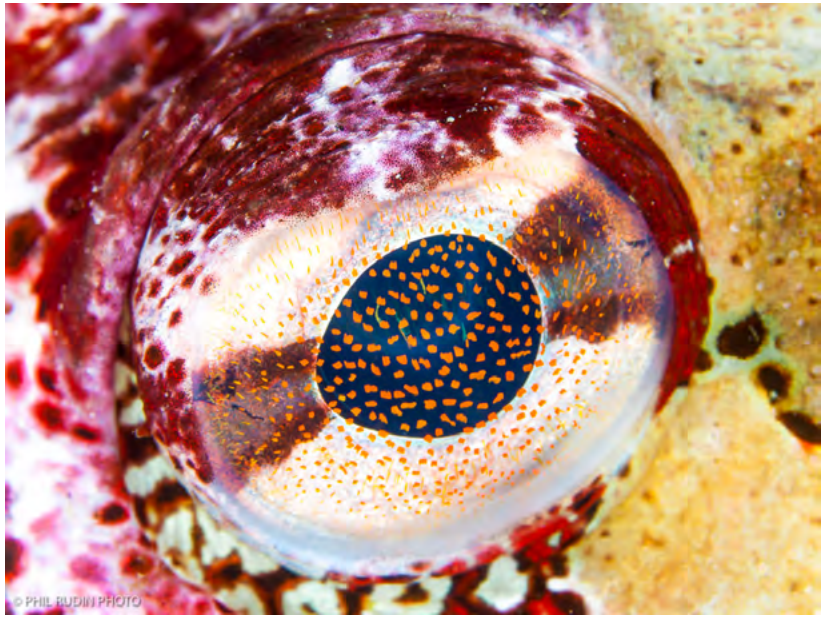
For images greater than life size (1:1) I use closeup lenses in the +5 to +20 diopters range. I have learned to choose the appropriate aperture setting for controlling the depth of field I want for the image and to help control how dark my background will be.

Black backgrounds create a more dramatic look while blue water backgrounds are more true to life.

Black backgrounds are most easily rendered by using low ISO settings, higher (F/8 and above) aperture settings and fast shutter speeds in the 1/125 second or higher range.

In many situations rendering a blue water background may only involve reducing shutter speed from say 1/250 to 1/30 of a second. In other cases using upward angles, a more open aperture setting or higher ISO settings may be required.

I most frequently go black when I have an ugly lifeless background or turbid water where backscatter is an issue. By only lighting the animal eye in the foreground some of these distracting issues can be mitigated.



Red Irish Lord Eye detail, Browning Wall, Alaska USA, Olympus E-330, Olympus 50mm macro lens with 1.4 X teleconverter, ISO 100, F/16, 1/160sec, Olympus housing, two Inon Z-240 strobes

Seaweed Blenny, Blue Heron Bridge, Florida USA, Olympus E-M5, Olympus 60mm macro lens, ISO 640, F/7.1, 1/250sec, Nauticam housing, one Inon Z-240 strobe, SAGA optical snoot

Blue water backgrounds work well for animals perched on Sea Fans, Whip corals and other growth where you have a clean blue water background. With larger marine animals you can completely fill the frame the animals eye eliminating any background as in the image of the Red Irish Lord eye detail taken at Browning Wall in Alaska USA.

When using more advanced lighting equipment such as snoots the light output from the strobe behind the snoot is often greatly reduced. The image of the Seaweed Blenny eye was shot at F/7.1 and 1/250th sec. the ISO had to be bumped to 640 for a proper exposure even though the snoot was only a few centimeters from the Blenny's eye.

If you plan on shooting closeups of your dive buddies eyes I suggest using a translucent face mask or no mask at all. Dark mask skirts cause dark shadows in many cases while the translucent skirts transmit more light allowing the eye to pop.

Finally eye contact and sharp focus must be captured in-camera, no amount of post processing will makeup for lack of sharpness or composition. If you remember to totally fill the frame with your intended subject cropping away large numbers of megapixels will not be necessary.

Phil Rudin

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