

Canon G9X review

by Bertie Gregory

I'll begin by saying this is not going to be a classic geek fest review. I won't be pixel peeping and I definitely won't be using graphs that require a degree in computer science to interpret. Instead, I'm going to discuss the quality of a few key features that you actually need to take notice of underwater. I took the G9X to the Red Sea for a weeklong liveaboard with Scuba Travel. I used it with a Recsea housing and an Inon wide angle wet lens. I shot mainly with ambient light but I also used a pair of Inon Z240 strobes.

Low Light Performance

With the release of every new camera, low light performance continues to be a hot topic. Canon and Nikon seem to be leading the arms race in the DSLR market, whilst Sony are dominating the competition with mirrorless cameras. Compact cameras (of which the G9X is one) seem to receive less attention in this area and traditionally have been pretty poor when put along side the aforementioned. I generally wouldn't dream of using a compact above 400 ISO for fear of producing a horrible red rash of ugly noise across the

image.

This G9X has made me totally reconsider. The Red Sea is a relatively easy shooting location; crystal clear blue water and plenty of ambient light. That said, it does get pretty challenging inside some of the wrecks. The huge wreck of the SS Thistlegorm is famous for it's cargo holds of Second World War motorbikes, trucks and ammunition. The long corridors get pretty dark and gloomy so before, I would see little point in taking images inside the wreck with a compact camera if I didn't have any strobes.

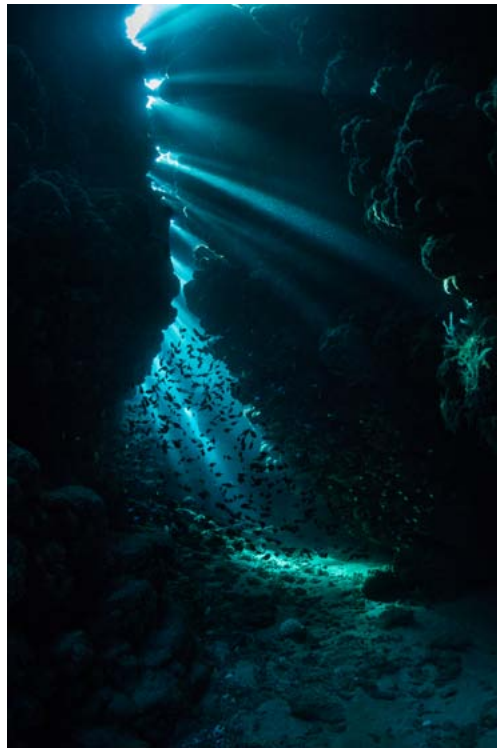
Whilst swimming through one of the holds, I turned to look back behind me and noticed how the gloomy light filtered through an entry hole. My eyes could barely pick out detail in the foreground but I thought I'd crank the ISO and see what happened. That evening, I blew up the image on my computer and was shocked by the lack of noise. The noise that was there looked nice, not the horrible digital colour noise that has previously shamed compacts. Instead, trying really hard not to sound pretentious, it was a filmic textual kind of noise.



Canon G9X and Recsea housing

Inside the SS Thistlegorm in low light shot at 800 ISO





The difference between a wide and narrow dynamic range in a Red Sea cave. Please note this comparison was made in postproduction and is not a comparison between 2 cameras.

Dynamic Range

Compact cameras have also been traditionally poor in their dynamic range. That is, the ability of a camera to capture detail in the brightest whites whilst still retaining detail in the darkest blacks of an image. The small cave near Jackfish Alley in Ras Mohammed national park is probably one of the best tests of dynamic range in underwater photography. Bright white beams of light stream in through a small crack into a dark cave: the

scene has very bright whites and very dark blacks. Previous compacts would have struggled in this situation- their narrow dynamic ranges would force you to expose for the bright beams of light leaving next to no detail in the moody shadows of the cave. Again, the G9X is a step forward. The ability to shoot in RAW further widens the dynamic range, as there's potential in post to pull even more detail out of the shadows and darken areas of over exposure. I should mention the ability



Jackson Reef with auto white balance settings



Jackson Reef with manual white balance set

to shoot in RAW on compacts has been around for a few years but the RAW files produced continue to get better at resolving hidden detail.

Manual White Balance

The ability to set manual white balance has been a crucial aspect of any camera for its use underwater. As depth increases, certain colours are lost by the absorption of water. This issue can be resolved using artificial light sources. The only problem with this is that strobes can't light anything much more than a metre or two away and creating a natural looking scene is often quite difficult. Turning strobes off and setting the white balance manually is a clever trick to restoring colours to an image more evenly. Canon compacts have tended to be the best at this. The G9X certainly doesn't let the side down.

Wide Angle Wet Lenses

Just like white balance, adding a wide-angle wet lens is another way

to dramatically improve underwater images. Adding a wide-angle lens allows you to be much closer to your subject whilst still fitting it in the frame. This eliminates the amount of water between you and your subject making images sharper and with better colours. Using wet lenses on compact cameras has the added benefit of being able to take them on and off underwater. In one dive you could shoot a 1cm nudibranch and a 1000cm whale shark. Meanwhile, with a DSLR setup you don't have this luxury- you have to choose beforehand whether you're going to be shooting wide angle or macro.

Some of the most recent Canon compacts have suffered in this area because of their long zooms. This is because the underwater housings have also had to be long to accommodate this zoom. This has subsequently made attaching wide angle wet lenses difficult as they have tended to vignette- you can physically see the lens in the images in the form



Lionfish close-up at night

of a circular black border. Fortunately, the G9X doesn't have a long zoom and so with the Inon wet lens, there was next to no evidence of that black border. That said, sharpness did fall off towards the corners. but, that's the price you pay for a relatively affordable wide-angle setup.

On the topic of swapping from something very big to something very small, the camera performed well in macro. The focusing is fast and accurate, even in low light.

Shooting macro brought an issue with the Recsea housing to my attention.

The shutter button on the housing is an actual button rather than a lever trigger like those made by other housing manufacturers. I found this frustrating as often, particularly when shooting macro, I want to only half press the shutter to obtain focus. The shutter button on the Recsea made it difficult to find the biting point and often I accidentally pressed the button all the way down taking a picture. This becomes an issue when photographing sensitive subjects with flash and when you're trying to capture a 'moment'.



A diver investigates the Red Sea's most photographed motorbike in the cargo hold of the SS Thistlegorm!

On the topic of capturing a moment, a great way of doing this is to fire a burst of frames. Unfortunately, like previous compacts, the G9X still has a slow rate of shooting at less than one frame per second.

Final Thoughts

I couldn't do a review on the G9X for underwater use without addressing the elephant in the room- the camera is a touch screen and to my knowledge no manufacturer, Recsea included, has managed to create an underwater housing

that allows you to operate the touch screen. This is a shame as aside from this flaw, the camera is probably the best compact camera I have ever used underwater. It's important to note that it is still possible to take full manual control of the camera but this does involve setting some custom buttons and swapping between shooting modes.

In summary, would I recommend this camera to others? The answer depends on what you plan to use it for. If you're an advanced

amateur and looking to take total control of a camera, then no. If however you're starting out in underwater photography or just want a camera to take down on dives that will give you the potential to take awesome shots, then yes. Many thanks to Cameras Underwater and Inon UK for the loan of the photographic kit.

Bertie Gregory

Bertie is a 22-year-old professional wildlife photographer, filmmaker and presenter. He recently finished filming a 24-part series for National Geographic following his adventure to track down British Columbia's coastal predators. Keep an eye out for the series premier in April 2016.



www.camerasunderwater.co.uk