

OM System 90mm Macro Lens Review

by Martin Stevens

Many people love macro photography for its ability to open up worlds largely hidden to our eyes, and to bring character and emotion to creatures otherwise too small to appreciate.

The OM 90mm macro lens was released in early 2023 to a lot of fanfare. It was an instant hit with many land photographers, and so popular that it was hard to get hold of. Part of the excitement stemmed from some exciting features, in particular the ability to take photos at 2:1 macro.

Being an OM System (formerly Olympus) user I was excited to get my hands on this lens later in the year. I've now had the opportunity to use it both where I live in Cornwall UK, and on a recent macro trip to Anilao, Philippines, and give it a good test in various conditions. It's fair to say I absolutely love it.

Like other Pro lenses in the OM / Olympus line up, the 90mm is robust, feels high quality (even with some plastic aspects), and is weather sealed. It also comes with impressive stabilisation.

Throughout this review I'll make some comparisons with the widely used Olympus 60mm: my go-to macro lens for the last few years, and a staple of many micro four thirds users.

Magnification

I must start with the flagship feature of the 90mm lens, that being the ability to take 2:1 macro, without the need for a diopter. That's also on a cropped sensor, so filling the frame with tiny creatures is easier than ever. I found this a huge

advantage in recent shoots.

With the lens delimiter switch set to the super macro setting (more on this below), I had the flexibility to go from below 1:1 macro, to true macro, and then 2:1 without the need to add extra lenses. It may not be a big deal for some photographers to switch a diopter on or off, but aside from the process of doing that, adding one limits the window where the camera will focus.

With the OM 90mm the camera keeps focusing as you move progressively closer or further away from a subject, allowing great flexibility in magnification and composition, without being limited to fit within a narrow focal window. I've been excited by the results, and obtained a variety of shots with the lens that I would have otherwise missed.

There is little else on the market that can compete with this feature, with most other high magnification lenses being manual focus only. And yes, you

OM 90mm lens next to the Olympus 60mm macro.

Juvenile painted frogfish on the sandy seabed, Anilao Philippines Olympus EM5 Mark III, OM 90mm lens, Exposure 1/250, aperture f/8, ISO 320. Two Sea and Sea YS-D3 MII strobes.





can still add a diopter if you want to go beyond 2:1 macro. Naturally, that gets into the ‘very challenging’ realm of shots because the focal plane is wafer thin. I have only tried this with relatively stationary subjects, like cushion stars, while sitting in a rock pool, with a degree of success, but I can’t say I’ll be wanting or needing to try this often.

Sharpness and Performance

It did not take long for me to appreciate that the 90mm lens is remarkably sharp. In fact, I’ve been

blown away with this aspect of it. Having used the Olympus 60mm for several years it was a lens I’d been largely happy with but never really loved. In fairness, most of the macro photos I take are of very small things, and so I have largely used the 60mm with a diopter. Yet even with a high-grade one like the Nauticam CMC-1 I’ve not always found the results to be especially sharp. The OM 90mm is in a different class. In fact, I can honestly say I have not used a sharper lens for macro.

Focussing is never the easiest thing for any macro lens, but I’ve been



Orange-clubbed sea slug against pink encrusting algae, Cornwall UK. Olympus EM5 Mark III, OM 90mm lens, Exposure 1/250, aperture f/16, ISO 200. Two Sea and Sea YS-D3 MII strobes.

very happy with how the 90mm has performed. This is a lens that can get to 2:1 macro with mostly excellent autofocus. Like all macro lenses it sometimes ‘hunts’, but seemingly no more than the 60mm (in fact, probably less from what I’ve experienced so far), and I found the autofocus to be fast most of the time, even at 2:1. The only times I found the lens struggling was when the water was rich in particles, but that’s a problem for any lens. Like

many other high-end Olympus / OM lenses, there is also a manual macro focus clutch which is excellent for land photography, but something I couldn’t use underwater with my housing.

One of the other features of this lens that makes it useful is the 90mm focal length (180mm full frame equivalent). That, coupled with the lens being longer than the 60mm, means having that bit more working distance, which can be crucial in not



Small cushion star in a rock pool on pink encrusting algae. About 1 cm in size. Cornwall, UK.

Olympus EM5 Mark III, OM 90mm lens, Exposure 1/250, aperture f/9, ISO 200. Two Sea and Sea YS-D3 MII strobes.



Close up of a small cushion star, taken with the 90mm lens and a Nauticam CMC-1 diopter to achieve magnification beyond 2:1. Cornwall, UK.

Olympus EM5 Mark III, OM 90mm lens, Nauticam CMC-1, Exposure 1/250, aperture f/11, ISO 200. Two Sea and Sea YS-D3 MII strobes.

scaring off skittish subjects. I was able to take close-up photos of some subjects that would have disappeared had I been using the 60mm lens and a diopter. The extra distance also means that, for super macro especially, there's a bit more space to get light around and on the subject. On the other hand, for larger subjects the extra working distance may push the diver further back than is ideal.

Bokeh

One of the drawbacks with the Olympus 60mm macro was that the bokeh was rarely particularly attractive. It certainly never made me go 'wow' at any rate. With a diopter it's relatively easy to obtain nice diffused colours, but otherwise I never found lighting or textures to be rendered especially pleasingly.

OM Systems have clearly been

working on this as the 90mm has much improved bokeh. It won't get you anything like the super artistic effects obtained with vintage lenses (few conventional modern lenses can), but there's a marked improvement in the 90mm in creating much more pleasing effects. I found it relatively easy to generate circular or bubble-like bokeh with a variety of out of focus natural patterns. Even highly reflective lines, such as those

on blue-rayed limpets, would produce interesting circles at the right distance and aperture.

Considerations and Limitations

So far, I have been glowing about this lens, but every lens has some issues, surely? On that front, it's hard to avoid mentioning its price.

While the 60mm macro would

set you back about £450 new (with plenty available second hand for less), the 90mm is more than twice that amount (ca. £1100). The lens has seemingly been very popular for OM Systems, and along with the OM-1 body, appears to be one of the major successes since the switch from Olympus to the new company. I could not even get hold of the 90mm for a while as it was always out of stock.

Whether the lens is worth the cost depends on each person, but I've not regretted getting it for a second and the 60mm hasn't even been close to my camera since. If setting up from scratch, then a good diopter would also cost a proportion of the difference too, if 2:1 macro is the aim. As I hope this review conveys though, the difference in quality is very high - the 90mm is streaks ahead in my opinion.

Physicality

In the hand, the most obvious thing about the 90mm is its size - it is much bigger than the 60mm (about 13 cm long versus 8 cm). It's also heavier, at around 450g compared to under 200g. How much of an issue is this?

Personally, this has not been a problem for me, especially not the extra weight which I have barely noticed. It is true that one of the benefits of the micro four thirds



Blue-rayed limpets on kelp, showing bokeh effect of lens on blue stripes. Cornwall, UK. Olympus EM5 Mark III, OM 90mm lens, Exposure 1/250, aperture f/6.3, ISO 200. Two Sea and Sea YS-D3 MII strobes.

system is the smaller size of the lenses, but I've used this lens locally and taken it across the world from Cornwall to the Philippines and never found the extra size a problem. But unlike the 60mm, it is not a lens you could just stick in a back pocket.

That said, one of the implications of the size increase and design of the 90mm is getting the set up into the underwater housing and ports.

I'm currently an Isotta user and



Coconut octopus on a night dive in Anilao Philippines Olympus EM5 Mark III, OM 90mm lens, Exposure 1/20, aperture f/7.1, ISO 200. Two Sea and Sea YS-D3 MII strobes.

unfortunately Isotta do not seem to have plans to accommodate this lens with a dedicated port, unless that's changed recently. For me, that mostly meant not being able to access the focus delimiter switch on the lens. Instead, I used a port made for the 60mm macro and added both 30 and 20mm extensions to get the camera and lens to fit, and it is a tight fit. Recently Isotta have updated their port charts and suggest adding some

extra extension beyond this.

I did occasionally have some issues with the aperture dial on my housing not engaging with the camera, but I've always found the aperture dial on my housing sticky so it's possible that is just my housing combined with the improvised set up. Nauticam seem to have been quick off mark and already released a port specifically for the 90mm lens, which allows functionality of things like the



Coleman's shrimp on fire urchin, Anilao Philippines
Olympus EM5 Mark III, OM 90mm lens, Exposure 1/250, aperture f/7.1, ISO 200. Two Sea and Sea YS-D3 MII strobes.

focus delimiter switch.

There's a couple of other considerations with the 90mm lens. It is marketed as an F3.5 lens, but this drops to F5 when the delimiter is on the super macro setting. The limit of F5 restricts how shallow the depth of field can get, but I never found this a problem. After all, F5 is already pushing it with macro, and with super macro the depth of field is tiny without needing to open up the aperture greatly. Perhaps there were a handful of shots where I might have wanted to experiment with a wider aperture, but I doubt it would have made much difference.

I have mentioned the delimiter switch above, something that controls the distance that the lens will focus and the magnification possible. It's not unusual for macro lenses to have this feature, with the aim being by limiting where the lens is focussing, you can improve performance and



Red-banded sand perch resting on the substrate, Anilao Philippines
Olympus EM5 Mark III, OM 90mm lens, 1/250, aperture f/7.1, ISO 200. Two Sea and Sea YS-D3 MII strobes.

reduce 'hunting'.

My housing meant I could not change this once the camera was inside. This does occasionally mean not being able to get a shot of something larger when on 'supermacro'. On one occasion in Anilao I managed to flick the delimiter to a wider setting when changing battery between dives and only noticed after descending. Naturally, that was the only dive when we encountered a tiny 'Shaun the sheep' nudibranch on the trip and I was forced into some 'small in frame' shots of it.

Nauticam users (and perhaps some other manufacturers) have the luxury of a port with access to the delimiter switch. That said, I nearly always gravitate to shots in the super macro range anyway. Plus, while the 'supermacro' setting suggests being limited to very small creatures, the setting really allows a greater range than might at first be thought, from something like the size of a portrait of a lizard



fish to the smallest sea slugs.

It is hopefully apparent that I've rarely looked back since getting this lens. There are undoubtedly considerations, perhaps chief among those the jump in price from the 60mm and size, but I'm so impressed as to consider it a game changer for me. I don't mind admitting I have toyed with the idea of saving up for a camera system with a larger sensor of some sort (the scourge of equipment envy...), but this lens has potentially changed my mind. It's the best macro lens I have personally ever used and even if, or when, I do upgrade, I think I would probably continue to use this lens regularly for macro shoots.

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