

Olympus TG-6 & PT-059 review

by The Backscatter Team

We were able to get our hands on a prerelease Olympus TG-6 camera and Olympus PT-059 housing and spent a few dives with it in our home waters of Monterey. On paper, the Olympus TG-6 looks very similar to Olympus TG-5, with the same great image quality and similar specs. However, there are some major improvements to the menu options and operation that completely changes how to shoot the Olympus TG-6, making it a lot easier to use and get even better results. Everything you would want to do underwater can be done without ever having to rotate the mode dial. Read on for this key information you won't find in any press release or topside camera review.

Set To Aperture Priority And Forget The Rest

With all of the new usability features of the Olympus TG-6, the camera can pretty much just live in Aperture Priority mode all the time. We can now focus as close as we could in microscope mode on the Olympus TG-5, and can shoot 4K video without having to be in movie mode. Everything you would want to do underwater can be done without ever having to rotate the mode dial. Here's how we did it.

The Olympus TG-6 now has what Olympus calls a "variable macro system", which allows access to the new Super Macro Autofocus and Manual Focus modes directly from the Quick Menu in Aperture Priority, Program Auto, or Movie Mode. Once focus is set to Super Macro, and as long as you zoom in to at least 1.2x, the camera can focus



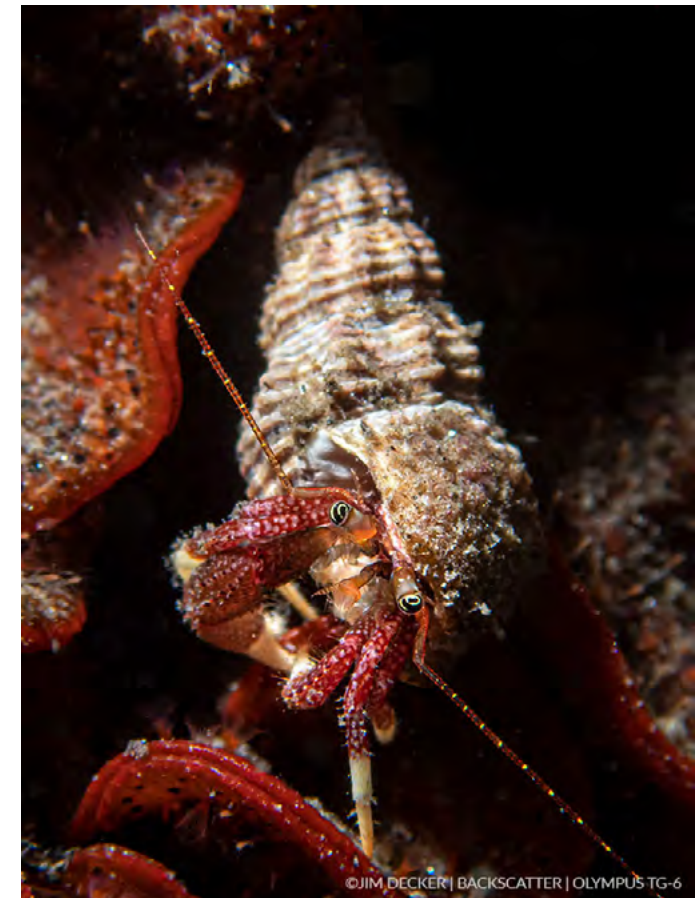
up to 1cm in front of the lens. This makes Aperture Priority mode equivalent to Microscope Mode in terms of focus ability, but with the added benefit of having a selectable aperture value as well.

The Olympus TG-6 still has Microscope Mode, which has been the marquee feature on this camera line for multiple generations. There are multiple options available in microscope mode such as focus stacking and HDR, but none of those really apply to underwater photography. For almost any underwater shooting situation there's no reason to bump over to Microscope Mode.

Previously, Microscope Mode did not allow one to select the aperture, making it the same as Program Auto mode but with a super close focus ability. Typically the camera would pick a wide-open aperture like $f4.9$, but now we can stop our aperture down to $f18$ for more depth of field, and darker backgrounds.

The image quality of the Olympus TG-6 is still superb, with fine, sharp detail, especially when shooting macro.

Olympus TG-6 | 1/100 | ISO 100 | f18





Click Here to see out Hands-On Review of the new Olympus TG-6 & Olympus PT-059

4K Video From The Quick Menu And Super Macro 4K Video

Olympus has changed up the movie options that are available in the quick menu. Previously with the Olympus TG-5 to shoot 4K or high speed 1080 video, it was required to be in Movie Mode. Now, 4K and high speed 1080 can be used directly from the Quick Menu, allowing shooting of these video specs in Program Auto and Aperture Priority mode.

Another benefit is executing a custom white balance. A custom white balance cannot be executed in Movie Mode but can be executed when in one of the photo modes such as Program Auto or Aperture Priority. Previously on the Olympus TG-5 to execute a custom white balance when shooting 4K one had to switch to a photo mode, execute the white balance, then switch back to movie mode. It's a time consuming and tedious process that is greatly simplified by being able to shoot video by directly pressing the record button in one of the photo modes.



Super macro can now be shot in Aperture Priority, no more need to switch back and forth from microscope mode.

Olympus TG-6 | 1/100 | ISO 100 | f18

Being able to select Program Auto or Aperture Priority for shooting 4K video, and the ability to use Super Macro autofocus from the quick menu are huge improvements. This is the first TG camera that can shoot 4K super macro, which is a breakthrough for a camera this size.

The ability to use Aperture Priority and shoot video has benefits for both wide angle and macro shooting. For wide angle, when using a conversion lens like the Backscatter M52 Wide Angle Lens, sharp corners can be assured by being able to assign an aperture of f8 or higher. For macro the aperture can be set to f18, giving more depth of field and making it easier to eliminate ambient light to get nice clean dark backgrounds for macro video.



Shooting at higher f stops results in more depth of field, which was not possible with the Olympus TG-5 in microscope mode.

Olympus TG-6 | 1/100 | ISO 100 | f18

Ability to set a minimum shutter speed—eliminate motion blur and get darker backgrounds

Wide angle photography has been something the TG series made a little more difficult with a lack of a direct shutter speed control. The minimum shutter speed when the flash is turned on is a very slow 1/30. While Exposure Compensation can be used to “trick” the shutter to a slightly faster speed to get darker backgrounds with less ambient light, this is way too slow of a shutter speed for moving underwater subjects, like turtles, sharks, and rays.

The Olympus TG-6 has a new ability to set a Minimum Shutter Speed limit, which can be set as fast as 1/500 of a second. The only catch is that in order to take advantage of this the camera must be



The Olympus TG-6 higher shutter speeds can shoot great wide angle shots and freeze motion with a wide angle accessory lens such as the Backscatter M52 Wide Angle Lens. 1/125 | ISO 160 | f8

in Auto-ISO mode. Auto ISO preferences can be set that will prevent the camera from choosing too high of an ISO setting. The higher limit can be set as low as 400 and the lower limit can be set to a default of 100.

While it's not direct control over shutter speed, the Olympus TG-6 can better freeze motion and create backgrounds that are several stops darker than the capabilities of the Olympus TG-5.

3 New underwater preset white balances

The Olympus TG-6 has 3 new white balance presets for underwater shooting that are depth-specific. There is a Shallow setting for 10-feet or 3-meters, Mid Range for 10-50 feet or 3-15 meters, and Deep for anything below 50-feet or 15-meters.

Even though this camera can capture a good



Backscatter CEO Jim Decker enjoying the new LCD screen of the Olympus TG-6 at the Commercial Wharf in Monterey.

manual white balance down to about the 15-meter mark, if you are a newer shooter that isn't ready to get into manual white balancing, one can just set one of these new Underwater options for your appropriate depth range. Because these balances are calibrated for clear, blue water, we haven't been able to properly test them here at our home base of Monterey, but stay tuned for a report from our next tropical trip.

New underwater microscope mode, but better off shooting in aperture priority

The Olympus TG-6 now has 5 underwater preset shooting modes - Snapshot, Wide, Macro, Microscope, and HDR - but only the Underwater Microscope Mode is new compared to the Olympus TG-5.



This shot was done with a snoot, which is a device to narrow the strobe's angle to just a small pinpoint. The idea is to use a high f stop and low ISO to get a very dark, if not a black background to make a dramatically lit shot. The Olympus TG-6 can now get these types of shots with ease as exposures can now be made several stops darker than what the TG-5 was able to achieve. 1/100 | ISO 100 | f18

These modes just simply apply one of the underwater preset white balances and apply an underwater color filter, both of which we can also manually set in the non-underwater modes while also gaining the benefits of more exposure control as well.

Just like before, the underwater preset shooting modes are actually a little more limiting than just shooting in aperture priority mode, and we still recommend doing that for better results. If you haven't seen our best setting videos or just want to get in the water quickly without setting up the camera, then this is a good option to have.



The Olympus TG-6 can get great shots of a subject from full wide to macro without moving the camera.

Left image: Olympus TG-6 | 1/500 | iso 400 | f8 Right image: Olympus TG-6 | 1/500 | iso 400 | f18

Sharper screen resolution

There is a new and improved LCD screen with over twice the resolution of the screen on the Olympus TG-5 at over 1 million pixels. Everything looks a lot smoother and less pixelated.

A big advantage of this is when using an accessory magnifying viewfinder like the AOI UMG-01. The improved LCD screen is noticeably sharper and easier to work from when magnified. The adjustable diopter of the viewfinder helps dial in sharp focus even if one's eyes need a prescription mask.

Custom Mode, Pro Capture, Teleconverter

The Olympus TG-6 has 2 custom assignable modes on the mode dial, like the Olympus TG-5. These are a great solution for quick jump-settings to spend less time in the menu.

The Olympus TG-6 still has Pro Capture mode

for buffering images and capturing the action from before you hit the shutter button, but as cool as this is, only works underwater when shooting stills with a video light. It's a nice feature but likely one that won't be used often.

There's also the new digital teleconverter for enhanced zoom. Digital teleconverters are not optical, so whatever zoom bonus that is gained is done through cropping, not actual optical zooming. The same effect can be achieved during editing.

Underwater Housing PT-059

The new housing is the Olympus PT-059, and as far as we can tell the differences between the previous housing are cosmetic only, with a frosted back instead of the clear back on the previous model.

From our testing, it's cross-compatible with the Olympus TG-5 and Olympus TG-6. We've put a Olympus TG-6 in Olympus PT-058 housings and



The Olympus TG-6 can shoot great wide angle shots with a wide angle accessory lens such as the Backscatter M52 Wide Angle Lens.

Olympus TG-6 | 1/30 | ISO 250 | f8

vice versa, and so far have not found any control issues on these Olympus housings.

Even though the camera body itself is still waterproof to 50 feet, it is still preferable to use the housing any time the camera is in the water. The wear and tear and extra layer of leak protection is the obvious main benefit, but the true advantage of the housing is that it acts as a platform for the accessories we need to really make the most out of this system underwater.

The 52mm threads on the front of the housing are what we need to install wide angle accessory optics, like the Backscatter M52 Wide Angle Lens and Backscatter M52 Wide Angle Air Lens.

The other major benefit of keeping the camera body dry is that you are also a lot less likely to experience fogging in the housing on a dive. If there is any moisture trapped on the camera body behind

a button or in a little crevice, it can create fogging in the housing at depth so keep it in the housing any time you plan to get it wet and avoid that risk.

Conclusions - The Best Tough Camera Yet

The Olympus TG-5 made major leaps forward in image quality and performance over previous models, and all of these great improvements carry over to the Olympus TG-6. Think of it as everything the Olympus TG-5 could do, but with a few more enhancements.

The biggest news with the camera is the revamped menu options that make it much easier to shoot. With the new ability to shoot super macro outside of microscope mode, shoot 4K video outside of video mode, and set a minimum shutter speed, Olympus took away all of our pet peeves regarding the usability of the Olympus TG-5.

The camera can now live in Aperture Priority Mode and do it all. Having control over aperture allows the camera to get darker backgrounds and more depth of field control, and with the minimum shutter speed setting, it can eliminate motion blur for big moving subjects in wide angle.

Minor updates are the new underwater preset modes and white balances that we will test the next time we are in tropical waters, but on the surface, it looks very promising.

With the upgrade in usability, the Olympus TG-6 gets the top spot in our Best Compact Cameras for best overall compact camera. It's hands down lightyears ahead of any other camera for macro, both ease of use and performance, and does a decent job at wide angle.

While it would be great to have direct shutter speed control in manual mode, it's the only miss this camera has. One can still dream of the day.

Pros

All the same great image quality and pro level features as Olympus TG-5.

Super Macro focusing ability direct from the quick menu means no need for Microscope Mode.

Can shoot 4K macro where Olympus TG-5 could not.

Camera can live in aperture priority and shoot wide, macro, video, and photo with no reason to change modes.

Cons

After years of begging, still no manual mode.

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