

Worth the effort?

The Sony RX10 V for an everyday, all-day, carry for nature photography. (with a comparison to the Sony a6700 and Sigma 16-300 Contemporary Lens.)



It is one thing to figure out how to get the best out of a new camera—how to make it do the things you want it to do—and quite another to decide if the effort is going to be worth it. A new camera, to justify its price, should enable you to produce better images than your current solution, or produce more satisfying images more often, with less effort. Otherwise, why bother? And why spend the money?

This is even more true if you are looking for an everyday, all-day carry camera. Something lightweight, compact, and capable—and even more true if your primary interest is nature: birds, bugs, wildlife, forest-floor macro, and landscapes both grand and intimate.

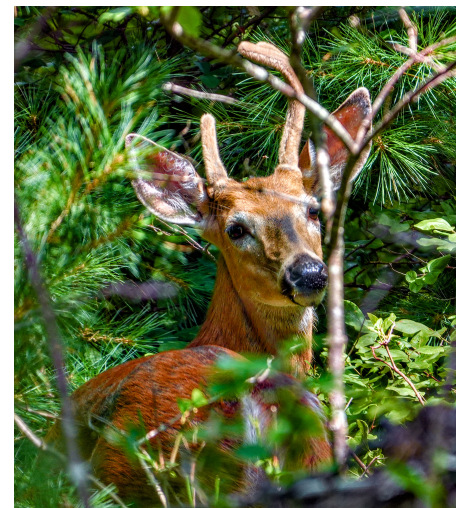
I have had the Sony RX10 V for exactly two weeks now, and most of my energy has gone into figuring out how to get the best out of it. Today, I want to talk about whether it has been

worth the effort.

The short answer is yes. Yes, for nature photography the way I do it, the RX10 V, properly managed, produces better images, more often, under more varied conditions, than my current everyday carry camera.

I carried the RX10 IV every day, everywhere, for 6 of the nine years of its run. That included 3 trips to Africa, one to India, 2 to South America, and too many to count to Central America, and to most of the most wildlife-rich and scenic areas of the US. Then, when it appeared that Sony was never going to upgrade the camera to the latest subject recognition, eye tracking auto-focus, or birds and wildlife (at least in my lifetime), I went through a few alternatives before settling on the Sony a6700 APS-C body with the newish Sigma 16-300 Contemporary lens for APS-C. That gave me a similar size and weight and a similar range to the RX10 IV, but with animal, bird, and insect subject recognition (and a larger sensor in the bargain).

And then, surprise, surprise, this summer Sony announced the RX10 V with all the latest focus and exposure tech,



with (fortunately) the same exceptionally fine ZEISS-designed and branded 24-600mm equivalent zoom, and (perhaps unfortunately) the same 10-year-old type 1 stacked 1-inch sensor from the IV (or maybe from the latest RX100 series camera). So of course I had to try it out. (Sony has a generous return policy.)

And that meant figuring out how to make it run my Point and Shoot Nature Photography method: basically 4 custom shooting modes. One for Birds and Wildlife. One for Flight and Action. One for Landscape. One for Macro. And how to make the majority of my HEIF images look as if they were processed by a master from RAW.

Though I expect to be tweaking the camera settings for some time to come, after two weeks I basically have it figured out.

So now I have time for the harder question. Was it worth the effort?

To find out, over the past two days I have taken the Sony RX10 V and the Sony a6700 with Sigma lens out together, and taken photos of the same subjects in the same light—turn on turn —to try to see if I can see a consistent pattern of improvement—or not.

And let me say first of all that handling-wise—between the RX10 V and the a6700—considering control choices and placement—the placement of the EVF—the button options—the V is a clear generation ahead of the a6700. For the nature photographer, using the efficient Auto Subject Recognition with choices limited to Animal/Bird and Insect makes switching target subjects a thing of the past. Being able to program the shift between Shooting Modes to a button, so you can leave the main control dial in one position almost all the time, and be in Birds and Wildlife, Flight and Action, Macro, or Landscape almost instantly, is a huge improvement. Having the EVF in line with the lens is surprisingly major when trying to get on a subject quickly. The addition of the joystick control (multiselector) is super useful in the field for selecting focus areas and moving focus areas within the field. After two weeks with the V and my evolving custom button arrangement, returning to the a6700 just feels awkward. Already.

That said, both cameras still suffer from Sony's apparent inability to build a focus system that can "back focus". (To be fair, it is not a problem unique to Sony.) The system gets stuck on a distant subject, or more often some high-contrast object, and refuses to focus in on your subject, even when it is right there in the center of the frame. The subject is just too far out of focus to be recognized. It is the one outstanding frustration of shooting with Sony AI focus. According to Sony, in this case, Subject Recognition is supposed to surrender control, and the camera should focus on whatever is nearest the center of the view, but I can tell you that simply is not happening. The a6700 has "full-time Direct Manual Focus," which allows you to quickly pull focus in until your subject is recognizable. The RX10 V also has DMF, but only as an option. You cannot activate it full time—or if you do, you lose eye tracking. That requires programming a button to turn it on and off, using the Registered Custom Shooting Sets feature. And then it requires an extra button press before you can use it. Fortunately, it is a "hold" feature, and releasing the button returns you to Subject Recognition instantly. Not ideal, but workable.



And let me say this too: If you are an RX10 IV owner and are into nature photography, the V is the upgrade you have been hoping for (if you have been hoping). There are some on the

various RX10 forums and groups who are claiming the V does not provide the image quality expected. That has not been my experience; once the camera is set up in a way that satisfies. Set up is slightly different. It is a whole new, and much more advanced and sophisticated, processing engine. No matter if you shoot JPEGs, or HEIF, or RAW, it requires some taming. But with some care and attention, I have been able to get quality that not only matches what I learned to expect from the IV, but surpasses it. And, due to the improved Auto Focus and Image Stabilization, I am getting that quality more often. The best shots might be no better than the IV produced at its best—but I am getting way more best shots! Especially of active birds, bugs, and wildlife.

But my question is, does the RX10 V also give me better Image Quality than the Sony a6700 and Sigma lens?



What am I looking for? Fine detail in feather and fur—in the veins of dragonfly, and the scales of butterfly wings. Living texture in moss and mushrooms. True colors that breathe with the light. A pleasing dynamic range, without impenetrable shadows or blown-out highlights in most lighting situations with most subjects. Landscapes that capture all the drama of big skies without losing the details in the green shadows, or that render a sun-dappled forest, maybe with a rushing stream, something like the eye sees it.

Backgrounds that do not distract from the subject with jitters or blotches, without the

overall white-wash or muddy dark mess of a bad watercolor painting. Image Quality! But image quality tuned to a view of the natural world.

I set each camera to either my Birds and Wildlife shooting mode, or macro or landscape as the situation called for. (I do not have a landscape mode on the a6700 so I used the Sony Landscape scene recognition mode.) Each camera was on Auto ISO with a minimum shutter speed pegged to 1/250th. I shoot in HEIF 4.2.2 and process in Photomator on the iPad Pro.

I shot a series of my model bird to establish a baseline: at various distances both in average open shade light, and in pre-sunrise dark to test the low light performance. And then I went out into the field looking for subjects that would stay still enough so I could switch cameras for shots with both.

When I got home, I cropped the images in on the bird or bug to pleasingly fill the frame, or left them full frame for landscapes. On the close model bird shots I cropped for the head and eye. On the most distant model bird shots I cropped for the full body of the bird. On the field shots I cropped as I would normally, for a pleasing composition that showed the subject to best advantage. Since the two systems had different maximum focal lengths, that means that the a6700 shots were more heavily cropped than the RX10 V shots, which is partially offset by the higher pixel count and larger pixel size of the a6700. For instance a full body shot of an immature Herring Gull required a crop to 11mp to fill the frame with the RX10 V, and a crop to 9mp to fill the frame with the Sony a6700 and shorter Sigma lens. However that is how I use my camera day to day. I crop to achieve the best presentation of the subject, no matter how large the subject is in the original frame.

I then processed each shot with exactly the same preset in Photomator, my standard preset for Birds and Wildlife (or HDR effect for landscapes).



At close range the difference is subtle, but the RX10 V (left) has the edge. You may or may not be able to see it in the PDF.

Somewhat surprisingly to me, studying these test shots closely on the high-resolution screen of my iPad Pro gave a clear edge to the RX10 V. Not just on a few shots, but on all of them. An edge that was obvious if you paid attention while viewing the images at full screen, and held up when images were zoomed in to see maximum detail. And edge that only increased as distance to subject increased. I never had any difficulty identifying the shots from the RX10 V at a glance, even when the subject was cropped to exactly the same size in the shots from both cameras. There was enough difference to see and appreciate immediately. While I have been completely satisfied with the results from the Sony a6700 and Sigma lens for the months I have carried it, the RX10 V simply produces better results, in every situation, with every subject.

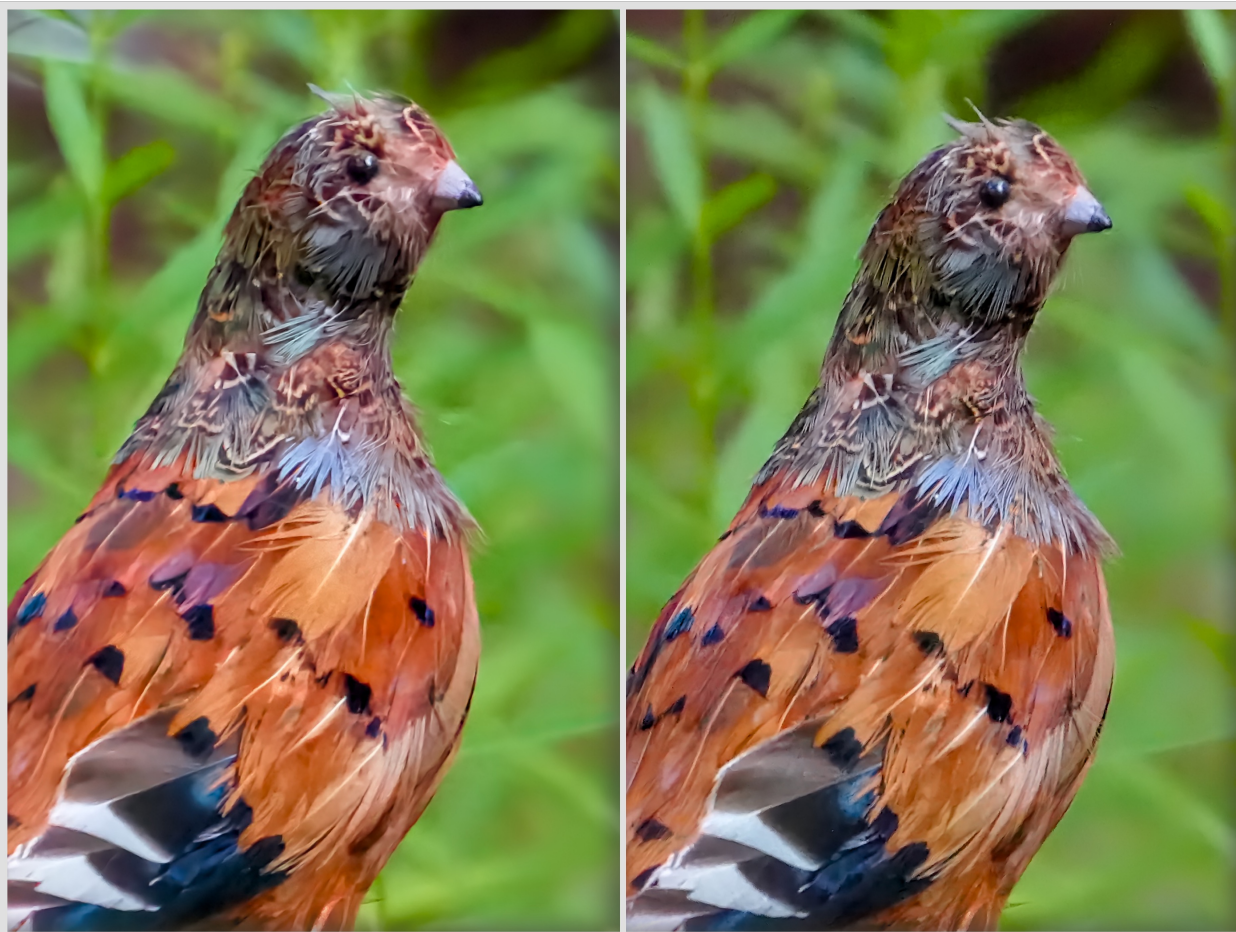
The edge is there at 600mm vs 450mm, but it is also there at 24mm vs 24mm on the landscapes. (Though the 24mm equivalent on the RX10 V is slightly narrower than the 24mm equivalent on the Sigma 16-300.) Small landscape details—distant houses or trees, for instance—are just smudges on the Sigma and a6700. They have texture and detail on the RX10 V.



Subtle but there, Sigma/a6700 top, RX10IV bottom.

The color rendition is, to my eye, slightly more natural on the RX10 V. There is more apparent color contrast and warmth to the Sigma images, but at the cost of subtle shades and color variations. I do not find either objectionable, but I do prefer the RX10 V colors.

Backgrounds were consistently pleasing on both cameras, with no objectionable noise or mud at normal ISOs in normal light. If there were to be a difference, you would expect it to show up in the low-light shots—but even there, the RX10 V's internal noise reduction did an excellent job of rendering the images without a huge amount of noise. And since the ISOs were consistently at least twice as high on the a6700 (due to the difference in maximum lens aperture), the RX10 V shots held up very well at 6400 and 8000. I would have shared the 6400



a6700/Sigma ISO 16000, RX10 V ISO 6400, both noise reduction in Photomator

ISO shots without additional noise reduction. While putting all the shots through the standard Photomator noise reduction produces very satisfying results from both cameras—the RX10 V shots maintained their edge in visible detail and more natural colors.



In shooting white birds in the sun, I expected the older, smaller, type 1 stacked sensor in the RX10 V to show its age. I was surprised to find that, with highlight metering engaged in both cameras, and my modifications to the Creative Look on the RX10 V, they produced almost identical highlight control. Even without highlight metering, dialing down the Exposure Compensation had almost exactly the same effect on the images from the two sensors. My custom Landscape shooting mode produced much more natural-looking skies than the Sony Landscape mode I was using on the a6700. And in both grand and intimate landscapes, much, much more natural-looking shadows.

My conclusion is that while the dynamic range of the RX10 V might not be all we would like, with careful management, it is enough for an everyday carry camera.

Finally, I had the chance to compare the image stabilization of the two. Considering the longer reach on the RX10 V, image stabilization is working very well. It seems to be implemented slightly differently. Half pressing the shutter on the a6700 steadies the EVF finder image more than half pressing on the RX10 V (though that could be the difference in focal length too), but the resulting shots show an equal lack of noticeable camera movement. I always used a bean bag head monopod under the RX10 IV. I am not tempted to carry it with the V. This is a good thing.

The subject recognition/eye tracking focus also seems to be implemented slightly differently. The processor in the RX10 V is at least one generation newer than the processor in the a6700. I have already mentioned that the Auto Subject Recognition Target works very well, if you limit your targets to those you are actually going to shoot. The finder display in the RX10 V sometimes does not seem to keep up with the actual status of the system, but I am developing confidence that it is finding and focusing on the eye even when the little green indicator is not yet on the eye.



Sony RX10 V, my custom Flight and Action shooting mode. 1/2000th.
ISO 4000. Processed in Photomator

To be honest, going into this comparison, I suspected, or at least feared, that the older, lower-resolution, type 1 stacked sensor in the RX10 V was going to be the limiting factor, and that no amount of tweaking the processing system, however advanced, was going to overcome its clear limitations. When Sony introduced the RX10 III and IV, it was clear that a lot of effort went into tailoring the processing pipeline to produce the best possible images from this particular, brand-new at the time, state-of-the-art sensor. And, considering the target market for what was still considered a bridge camera—still not quite serious—they put a lot of effort into producing a camera that would deliver very fine JPEGs straight out of the camera. It did not look to me as though the same effort went into the V. It looked like Sony just dropped the latest software right in on top of the old sensor and hoped for the best. Software that is optimized for the RAW

workflow common among users of their high-end full frames. Yes, we got the latest AI for subject recognition and tracking, but also a sensor with limited focus points. Yes, we got the latest AI for subject recognition and tracking, but also 11-year-old focus motor tech. Yes, we got the most sophisticated processing engine, but the features that optimized for the type 1 sensor—in-camera HDR, and multi-frame noise reduction—are gone. DRO has been given more levels, but still does little or nothing for the very real highlight ceiling of the sensor. I am not even sure the Creative Looks have been tailored for this sensor. Could have. Should have. Possibly did not.

So my findings are both a surprise and delight to me. The exceptional ZEISS zoom holds its edge in sharpness and detail, and in direct comparisons with living subjects, the new processing pipeline can be tailored to produce very satisfactory JPEG and HEIF images that require no more processing than images from the RX10 IV or the a6700.



My custom Landscape shooting mode on the RX10 V. Processed in Photomator

In fact, the new processor produces images that are hard to equal by processing the same image from the RAW file in Lightroom Mobile. The in-camera sharpening and noise reduction appear to be just as effective as Lightroom's adjustments working from a RAW—slightly more effective when it comes to sharpening. Shadow detail and smoothness simply cannot be equaled from RAW in Lightroom. You run out of shadow slider before the shadows open up as well as the DRO in the camera opens them. Only on rare occasions are you able to reclaim a bit more highlight detail from the RAW file, but only on images where you forgot to engage

Highlight metering on the camera. And the color rendition of the HEIFs is certainly indistinguishable from Lightroom's RAW processing. So not bad straight-out-of-the-camera files after all.

That leaves me with that firm **yes** answer for the question of whether it is worth the effort to tailor the RX10 V for nature photography. It is not a perfect camera by far, but if you are looking for a every day, carry all day, camera for nature photography, the RX10 V will do the job, and, in my studied opinion, do it better than any other current solution. Is it worth the effort to set it up for nature photography? Definitely.

And here's the thing. I installed a screen protector last night, so the camera is mine to keep now.



