

Advanced Guide to Point and Shoot Nature Photography with the Sony RX10 V

Part one: Birds and Wildlife, Flight and Action



What do I mean by Point and Shoot photography? In Point and Shoot photography we program the camera to do everything it can for us—and do it our way—so that we are free to do the parts only we can do. Find the subject. Frame the subject. Press the shutter. And share the image. Today's sophisticated mirrorless cameras with AI assisted processing engines can determine both focus and exposure much more quickly and accurately than we can. That is why we spend the money on them. At the same time, all cameras are optimized for photographing human beings—which makes sense since most photos are of human beings or human beings in a land or city-scape—when shooting nature—birds, wildlife, insects, flowers, mushrooms and moss and lichen, and landscapes both grand and intimate, we need to make some adjustments to the automated systems to achieved satisfying results day in and day out. That is what Point and Shoot nature Photography is all about. We set the camera up to favor the subjects we photograph and then let the camera do its thing, while we do ours: See. Frame. Shoot. Share.

The new Sony RX10 V combines the focus and exposure processing engine of the latest alpha series full frame Sony cameras with the great ZEISS designed 24-600mm equivalent zoom lens and a fast stacked 1 inch sensor. The sensor is, honestly, showing its age, but for the most part, with proper managing, it gets the job done. And there is not other solution for a carry all day, all in one, solution for nature photography that even comes close to it.

We can not expect the performance of a full frame camera with a set of prime lenses, but the RX10 V will produce satisfying images in a wider range of conditions, with a wider range of subjects than any other single camera solution available. And that is saying quite a lot.

What we are going to do here is to create 4 custom Shooting Modes, similar to the Scene Selection Modes already built into Intelligent Auto, but tailored specifically for nature photography.

You will also learn several ways of adjusting those modifications in real time, as the saturation and subject require, by using the two dials already programmed for such changes, and by programming the custom buttons on the camera for quick access to the few changes you are likely to need to make most often. I will show you what to look for and how to make those real-time adjustments—but only when they might improve a particular photo, or make a difficult situation or subject easier.

It might take you a few hours to get your Sony RX10 V set up for Point and Shoot Nature Photography, but once set up, you really will be able to go out day after day and let the camera do its job, while you do yours.

(You can download the complete CAMSET for all my modifications and simply install it, but doing it yourself will help you to understand the reasoning behind my choices. Understanding that will help you when you do need to make real-time adjustments. And it is especially important to understand the new button and dial assignments.)

By the way, when I photograph people, which of course I do—parties, events, portraits of friends and family, travel shots, even the occasional wedding—I use the Intelligent Auto program. It is the program the engineers spent the most time on—the one they designed the camera around since most cameras are used to take people photos most of the time—and it almost always does a better job than I could of determining both focus and exposure. Intelligent Auto—scene select auto—actually works quite well for almost all general shooting. You could get away with using it for all your photography, but if nature photography is your thing, then my custom shooting modes will give you better results and allow you to adapt to specific situations and subjects with more ease.

I also, you might be surprised to find, shoot exclusively in HEIF, not in RAW. JPEG used to be my choice, but on newer Sony cameras like the RX10 V, I use HEIF, the higher efficiency compressed format with smaller file sizes and greater bit depth, which some

say leads to slightly more color detail and dynamic range. I make this choice because I want to be able to use the sophisticated in-camera exposure and processing features like Dynamic Range Optimization, Creative Looks, and in-camera sharpening and noise reduction. Intelligent use of these features can, on correctly exposed images (which you will have if you are using the camera's exposure system to best advantage), duplicate the results available with RAW, and with a fraction of the effort in post-processing. Right in the camera, as the image is being processed and compressed. You will still be able to improve your files in post-processing or editing apps, but working with the already processed HEIFs from the camera will be quick and easy. And you will be able to achieve results that only a master of RAW processing could. There will always be particular scenes and situations and subjects that are simply beyond the ability of the camera to satisfyingly record, but those are beyond even the best RAW processing anyway.

(A note on HEIF. Some computer operating systems and some post-processing apps still do not play well with HEIF. If you are working in the Apple Universe (I do all my photo processing on my iPad Pro), you will have no issues. Working in the Windows sphere, you may find that JPEG is more commonly supported. HEIF is undoubtedly the better format, but make sure your systems will handle it before you commit to it. HEIF is often automatically converted to JPEG when you upload the file to any web based application anyway.)

Point and Shoot Nature Photography is a choice. There is no wrong way to do photography. I choose to let the camera do all it can for me, after telling it what I want it to do. That is my choice. If it might be yours well then, I call that:

Point and Shoot Nature Photography.

Custom Birds and Wildlife Shooting Mode.

Learning to get the best out of new camera is a never ending process. I will revise this eBook and issue updates as I refine the Point and Shoot method for the RX10 V, but this will give you a place to start. If you are really only interested in the modifications themselves and do not care about my reasoning for each one, it might be simpler just to watch the modification videos on my YouTube channel. There is (or soon will be) one for birds and wildlife, action and flight. And one for macro and landscape. (There are also condensed lists of the changes I recommend at the end of each section here, if you are adverse to video.) For those who want to understand the changes I am recommending, read on.



By far the easiest way to make these modifications is by using the touch screen on the menus. I know not everyone is comfortable with touch screens, though most of us have to use them on our phones. The alternative is using the 5-way control wheel (or just 5-way control) on the back of the camera to scroll through the menus using the up, down, left, right edges of the wheel, and selecting options using the center button. Your choice. In the beginning, as you are getting comfortable, I will give both sets of instructions.

(For those who are already comfortable with the Sony Menu system, and already know how to make changes, there is a simple step by step list of changes that need to be made at the end of this section. Jump right there if you dare.

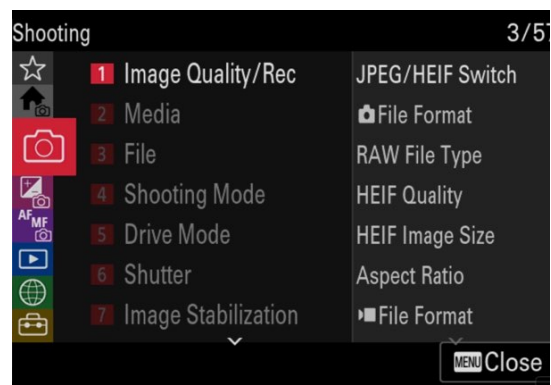
For those who have already set up a Birds and Wildlife Mode following the instructions in the Intermediate Guide to Point and Shoot Nature Photography with the Sony RX10 V, there will be a few refinements here, and few settings you will change. I will highlight those. **You will start with the Mode Dial in the 1 position, instead of the P position.** The important step is at the end when you will save these modifications to MR3 instead of MR1 (your BW or whatever name will go with you). Until you set up your Landscape and Macro modes, and overwrite your MR1, you will have a copy of your original BW mode in the 1 position of the Mode Dial and this new copy available in the Star position using the Custom 1 button on the top of the Camera.)

Many of these settings can also be made via the Function Menu if you are more comfortable with that.)

This birds and wildlife custom Shooting Mode will be your base set. You will not have to make all these modifications all over again for Flight and Action. This one is going to seem long. Be patient. This is the hardest one because it is the first one. By beginning with this custom mode, you can only make the necessary modifications to create the sets for action and flight, macro, and landscape. The others will be easier, I promise.

Check to make sure the main dial is still in the P position (1 for those who already have a BW Mode). Open the menu with the menu button and touch the Main Camera menu option (the little camera icon) or scroll down to the Camera menu using the bottom section of the 5-way control dial on the back of the camera.

Touch the Image Quality/Rec option in the



column on the right. Or scroll right (right edge of the 5-way control dial on the back of the camera) to the Image Quality/Rec setting. Touch the JPEG/HEIF Switch option on the right. Or scroll right again to the JPEG/HEIF switch and scroll right once more to open it. If your systems can handle HEIF, set the switch to HEIF 4.2.2 by touching it to select, or by scrolling down to it and pressing the center button on the 5-way control to fill in the selection circle. You will get a warning about system compatibility. If you are all set for HEIF, touch OKAY. Or press the center button of the 5-way control to OKAY it. That will return you to the Image Quality menu. If you are not certain about HEIF, or are having second thoughts about compatibility, set this option to JPEG. If you already set it to HEIF and change your mind, reopen the JPEG/HEIF switch menu and change your selection to JPEG.

(A note on HEIF. Some computer operating systems and some post-processing apps still do not play well with HEIF. If you are working in the Apple Universe (I do all my photo processing on my iPad Pro), you will have no issues. Working in the Windows sphere, you may find that JPEG is more commonly supported. HEIF is undoubtedly the better format, but make sure your systems will handle it before you commit to it. HEIF is often automatically converted to JPEG when you upload the file to any web based application anyway.)

Under File Format, select HEIF. (Read JPEG for HEIF, here and following, if you made that choice.)

(Why not RAW or RAW and JPEG or HEIF. In my testing I have found that with this camera and this sensor, in particular, the in-camera processing, with minor post-processing, produces as satisfying an image as can be processed from RAW with any amount of post-processing, and often a better image.)

Under HEIF Quality, select Extra Fine (your files will be slightly larger but maintain more detail and color).

Leave all other settings under Image Quality at their factory defaults (do not make any more changes).

Touch the Camera Icon to return to the Main Camera Menu or use the left edge of the 5-way control to scroll back to it.

Touch or scroll down to Shooting Mode. Scroll over to or touch Shoot Mode Limit. You will see a list of all the available shooting modes: from. Auto to your custom memories. They are all checked, which means they are all active with the Main Mode Dial in the Star (☀️) position. We are only going to use two MR (memories) here. Uncheck all but MR3 and MR4. We will store our Birds and Wildlife Shooting Mode in MR3 and our Flight and Action Shooting Mode in MR4. That way we can program a custom button to switch rapidly between them, as we will often have to do in the field. We will still have access to all the other shooting modes, either under the Auto position of the Main Mode Dial, or in their own designated spots on the dial (S or A). We will access our Landscape and Macro Shooting Modes in the 1 and 2 position on the Main Mode Dial.

Touch or scroll down to Drive Mode. Touch or scroll right to Drive Mode (same name) in the column on the right. Open it by touch or by pressing the right edge of the 5-way control. You will see the live view of the camera with selections for drive mode along the left side of the screen. Touch Cont. Shooting (or scroll down to it). In the options that appear at the bottom edge of the screen, touch or scroll to Lo. If touching, you will automatically return to the Drive Mode menu. If scrolling, you will have to use the center button on the 5-way control to OK your choice. Lo (low) will give you 5 frames per second no matter which shutter you select. I find that 5 frames per second is enough for stationary wildlife and birds. It is enough to give you a variety of poses, without filling your card with hundreds (thousands?) of all but identical images.

Return to the main camera menu by scrolling left or just touch the Camera icon. Touch or scroll down to the Shutter menu. If scrolling, use the right edge of the 5-way control wheel to open it. You have two choices: Electronic and Mechanical. The electronic shutter offers higher speeds (up to 1/16000 of a second) and higher frame rates (up to 30 frames per second) and is silent. The Mechanical shutter tops out at 1/2000th of a second on apertures smaller than f/8 (ie f/11) and 1/1000th of a second on apertures larger than f/8 (ie f/4)—and at 15 frames per second. The Mechanical shutter on the RX10 V is a leaf shutter, so it does not have the “clunk” that most DSLRs and mirrorless cameras have, but it still makes a faint “snicking” sound. Some folks think that the Mechanical shutter can deliver slightly more dynamic range in the image (more detail in darker darks and lighter lights) than the electronic shutter, and less distortion on moving subjects, but its speed limitations make it only really useful for macro and landscapes. I use electronic for Birds and Wildlife and Flight and Action. Set your choice and return to the main Camera menu.

Check to make sure Steady Shot is on, under Image Stabilization. You want all the help you can get to hold the camera steady, especially near the 600mm end of the zoom. Sony materials advise us to turn it off when using a tripod, but I never remember to do it, and my photos come out just fine. And if you do turn it off, you have to remember to turn it back on.

Select Zoom and set it to Optical Only (It should be already set). Sony provides two zoom extension options. Clear Image Zoom crops into the center of your frame to increase the apparent reach of the zoom beyond 600mm, by a factor of 1 to 2. The camera then applies sophisticated expansion to fill the frame with the crop, in much the same way modern photo apps can increase the resolution of an image. It works pretty well, but unfortunately when you go into the Clear Image zoom range you lose Subject Recognition and tracking, so it is not much use for Birds and Wildlife. The other option, Digital, is even worse. You can get even higher magnifications, but it is like zooming your phone camera. All the pixels just get larger and eventually all you have is mud.

Those are all the changes under the Main Camera menu, but we will return here when we are ready to save these modifications to MR3 (camera memory 3).

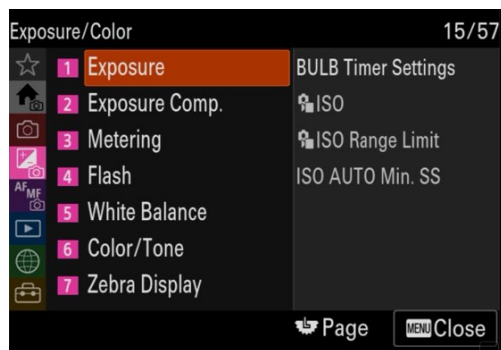
Touch the Exposure Menu in the left column, or scroll all the way to the left and scroll down to it. It is the little square divided into light and dark triangles with the plus and minus and the tiny camera.

Touch Exposure at the top of the column on the right or scroll right to it. If scrolling open it by scrolling right once more. Touch or scroll down to ISO, and right to open it. Again you will have the live view with ISO options along the left edge of the screen. The top option is ISO Auto. Touch it, or select it by pressing the center button on the 5-way control.

Touch or scroll down one and open ISO Range Limit. On this screen you can select a minimum ISO and a maximum. Select 100 for the minimum by touching the up and down arrows or using the top and down edge of the 5-way control. (As I understand it, ISOs below 100 are extrapolated from the true base at 100, and will give you lower quality, not greater). For maximum, on this camera I set it to ISO 8000. In my tests, ISOs above that begin to show noticeable noise and reduced dynamic range. With the f4 lens on the RX10 V, you will be shooting at lower ISOs already than with most comparable cameras. After making your selections touch OK or press the center button on the 5-way control to return to the Exposure menu. (By the way, the Camera will override your setting here if it cannot capture a correctly exposed image any other way.)

Touch or scroll down one and right to open ISO AutoMin SS. Here you can set two similar but slightly different things. The top option on the left, ISOASS, allows you to tell the camera how fast you want the ISO to increase as light levels fall and shutter speeds go down. Notice the options across the bottom of the screen. Standard on most cameras will set the shutter speed to 1 over the focal length (a convention from

non-stabilized lens days) to minimize the effects of camera and subject movement. On the RX10 V, they apparently have factored in the advanced image stabilization and Standard will set the shutter speed to 1/one half the focal length. Either choose Standard (STD), or return to the options on the right and scroll down, either by touch or 5-way control, to something like 1/250. If you choose Standard or 1/250. The camera will raise the ISO to maintain that shutter speed whenever possible. If you choose Standard, the shutter speed will change as you zoom in and out, 1/250 at full zoom, slower as you widen the view. 1/250 is faster than you need to eliminate camera motion with this camera most of the time, but it is just fast enough to eliminate subject motion most of the time. If you run out of ISO, according to the limits you just set above, the camera will lower the shutter speed to maintain correct exposure, so it is completely safe to set your min SS to either Standard or 1/250.



Touch the main Exposure menu icon (or scroll left until you reenter the main exposure menu). Touch or scroll to and open the Metering option. Then open Metering Mode. Again, you will see the live view. In this case, the live view is actually useful as you can see the way changing your metering pattern will change the scene as it is recorded.

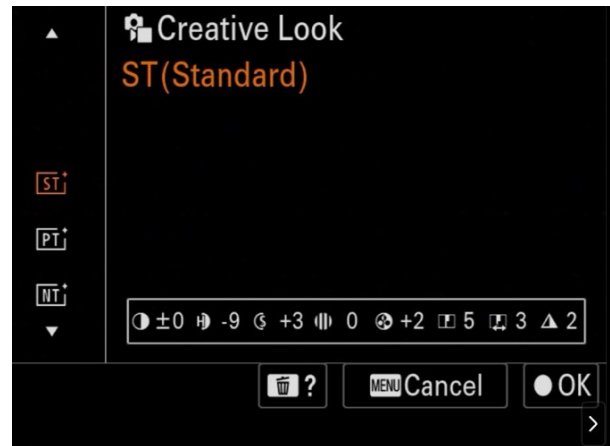
Multi Metering reads many different areas of the scene and attempts to compute the exposure that will give you the best balance of lights and darks and the truest colors. I like the concept and it works well on Sony alpha series cameras, but not so much on the RX10 IV or V. I use Center metering on V just as I did on the IV. The other option I sometimes use is the bottom option: Highlight. This setting reads the scene, makes note of the brightest areas, and adjusts exposure to maintain color and detail in those highlight areas, often at the expense of darker, denser shadows. Highlight is useful with very bright birds and wildlife in bright sun (think Egrets or Silver Fox, but also Macaws or Cardinals), and I program the switch to Highlight Metering to the Lens button when I get to Custom Keys/Dials below.

Select the Exposure menu again. Select Color/Tone. The top option is D.RangeOptimizer, which stands for Dynamic Range Optimizer. As I have mentioned, there is a delicate balance between the highlights and shadows of any scene. You want enough exposure so that there is detail and color in all but the darkest shadows, and yet not so much that you lose detail in the brightest areas. DRO analyzes the scene by metering many different areas or zones and attempts to apply different levels of processing to the different zones of the image to maximize apparent dynamic range. It works best on shadows, bringing them up to preserve detail and color, and less well on highlights—but better than nothing. You have options for Auto and 8 different levels. For birds and wildlife, moving in the real world of constantly changing light, I set it on Auto.

Returning to the main Exposure Menu options, select Creative Looks. Creative Looks is Sony's name for the kind of fine adjustments you might make to a RAW file in post-processing, but done right in the camera as the image is processed to a JPEG or HEIF. And done to every image you take. When you open Creative Looks, you are presented with live view again, with options down the left side of the screen and across the bottom. The left side column of options are your main profiles: Standard, Portrait, Neutral, Vivid 1 and Vivid 2, three film-look profiles, Instant Camera look, Soft High Key (faded like an old print photo), and Black and White. The same choices repeat with a 1 next to them, in case you want to modify the same look two different ways. As you scroll down through them, you will see the live display change to reflect the effect of the different looks.

After a good deal of experimentation, for birds and wildlife, I use the Standard Look and modify it as needed. Standard, once more, attempts to process the raw file to maintain what the camera determines is the best balance between shadow and highlights and the truest colors. It uses a sophisticated algorithm and many sampling points. It does a very good job.

Each of these looks can be modified by adjusting the settings for Contrast, Highlights, Shadows, Fade, Saturation, Sharpness, Sharpness range, and Clarity. The adjustments I make to Standard for birds and wildlife are to decrease highlights to -9, increase shadows to +3, increase Sharpness by 2, and increase Sharpness Range by 1. Again, you can experiment with these settings yourself, but my experience with this sensor—ostensibly the same type 1 stacked sensor from the RX10 III, the IV, and now in the V—is that it “runs hot.” It has very little headroom. Highlights blow out fast. I make the changes I do to tame the highlights, while adding a bit of sharpness, without going the Vivid route. I will still apply minimal post process to every image I keep.



By all means, experiment with the other Looks as well. Neutral produces a look somewhat like a RAW file and is good for those who want to do a lot of post processing in an editing app. The two Vivids, on the other hand, are for people who do not want to do any post-processing at all—who want to share photos directly from the camera. They add pizzazz (Vivid 1) and more pizzazz (Vivid 2).

If you pick the Creative Look that matches your needs and vision, and then tweak it a bit as you feel the need, you can accomplish most of what RAW shooters do in post-processing with RAW files. Right in the camera. For every shot you take.

I do modify other Creative Looks for both landscape and macro modifications, as my vision for macro and landscapes and the demands of macro and landscapes are different from Birds and Wildlife.

The changes you make in Creative Looks are equivalent to the changes someone might make when post-processing an image shot in RAW, only they are applied to every image you take, as the RAW file is being processed to a JPEG or HEIF. (RAW is the native data from the sensor with only the automatic distortion and color adjustments that the camera makes to all the images. JPEG and HEIF are two compressed formats for saving files. Some say that some of the RAW data is lost in in-camera processing and compression. I say that with this particular camera and sensor, it does not matter. There is nothing in the RAW file that is not faithfully represented in JPEG or HEIF and you will not get any better results processing a RAW RX10 V image than you will processing a JPEG or HEIF. And often the JPEGs and HEIFs can be shared right out of the camera with no or minimal processing, where RAW files will always need processing before sharing. And, finally, Creative Looks only work when shooting in JPEG or HEIF.

Which brings us to the Focus Menu. The icon with the AF/MF and the tiny camera. Select it.

Select Focus Mode in the column on the right and choose Continuous Auto Focus. Since we will enable Subject Detection and Eye-tracking a few steps later, it makes sense to run the Focus on Continuous.

Select Focus Area Limit. This is one of the places where you can limit the number of choices you have to those you will actually use, to make switching back and forth between them quicker and easier. When you select Focus Area Limit, you will be presented with a screen of focus area patterns, of two kinds: a set of non-tracking and a set of tracking. The ones I use for Birds and Wildlife (leave checked) are Wide, XL-Spot, and Expanded Flexible Spot. When we get to setting up custom buttons I will show you how to program these Focus Areas to the down press on the joystick control (multi-selector) so that each press of the joystick cycles through your choices. For birds and wildlife I start with X-L Spot, since I find that the focus system sometimes

needs a little help knowing where your subject is, even when the bird or wildlife or bug is not deep in foliage or against a very confusing background. I switch to Expandable Spot as a last resort when I can only see a part of the subject through obstructions or the subject is too small and too far away to trigger recognition in any other mode. Expandable Spot uses the very small spot in the center to find focus, but then expands to the slightly larger spot if it needs to. Experience in the field has taught me that these two focus area options are the ones I actually use. I do leave Wide active, and use it sometimes when there is little else in the frame but the subject. By switching off all other options in this step, I can easily switch between them with the push of a button. When you have unchecked all the patterns you will not need, scroll down to the bottom of the screen until Okay is highlighted and press the center button on the 5 way control to lock your choices in—or just touch OK.

Now go back up one, under Focus Area, set it to XL-Spot.

Select AF Area Registration and turn it ON. You will get a message that says that you can Register a Focus Area by long-pressing the Function button. We are going to use this feature to customize our AF-On button to use a different Focus Area than the shutter button. This will allow us to run the XL-Spot Focus Area as our primary Focus Area in Birds and Wildlife and to instantly switch to Expanded Spot for difficult situations and subjects. And it will allow us to run our Flight and Action mode in Tracking Wide for birds in flight and charging animals against a plain background, and instantly switch to a non-tracking smaller Focus Area for action on the ground.

Return to the Focus Area Menu. Select Circ of Focus Point (it is on the second page of the menu, near the bottom). This is where you set your choices to repeat endlessly as you press your custom button. Choose Circulate.

Now select Subject Recognition. Set Subject Recog in AF to on. Set Recognition Target to Auto. You will see a little arrow next to Auto on the setting display. Scroll right

or touch the arrow. Here you get to limit the targets Auto will look for. For nature photography I deselect all but Animal, Bird, and Insect. That way the Subject Recognition is not wasting processing cycles looking human, cars, or airplanes. If I want to shot those I use Intelligent Auto on the main Mode Dial.

Select the next option in the Subject Recognition menu: Recog Trgt Select Set. This is another chance to limit the options you have to the ones you are actually going to use. Deselect all but Auto, Animal/Bird, and Insect (experience has shown that Animal/Bird works better than either Animal or Bird, for both birds and animals). You are going to save this as your options for Birds and Wildlife. When shooting in Intelligent Auto, the camera will still use all the options, including Human, Airplane, etc., but for Birds and Wildlife, having Human, in particular, selected is just one more thing the camera has to think about. If you use Auto Subject Target with these limits, acquiring a bird, an animal, or an insect is all but instantaneous at least 90% of the time—and that is pretty amazing.

Now we are going to go back to the Recognition Target and set some of the options for the three targets we are using. When you select Recognition Target from the menu, you will see that there is one left arrow on the left that indicates a return to the Subject Recognition Menu, and a right arrow next to each option. Select your first checked

option below Auto: Animal/Bird. Open it either by scrolling right or by touching the little right arrow. In the menu that opens, select Animal Details. Select Recognition Sensitivity. Increase it to 4. That will speed up subject recognition for animals. Setting it to 5 only increases the number of false positives (a rock that looks like a bear, etc.). Leave it at 4.



Select Bird Details and make the same change. Go back a menu level to the list of options, and select Insects and make the same change.

(You can make these changes directly to the Animal and Bird targets as well. It works either way. You do not have to do both.)

One of the things you could change here is the Recognition Part. It is set to Eye/head/body by default and there is no reason to change it. The camera will look first for the eye of your subject and if it can find one it will track that. If it cannot find the eye it will find the head and track that. If it cannot identify the head, it will find the body and track that. Automatically. Let it do its job.

Once again, with these settings the camera will, almost all the time, find your subject and track its eye (or at least the body or head) as it moves and as you move the framing. Just like magic!

Return to the Main Focus Menu. Scroll all the way down to Peaking Display, and turn it off.

And there! You have just created your first custom set of modifications to program for Birds and Wildlife. Congratulations. In essence we have created a highly specialized Programed Auto or Scene Mode specifically for the subjects you want to shoot, and the situations you will find yourself in.

One more major step and a couple of minor ones.

Close the menu. Use the right wheel on the top of the camera (the one with the locking button) to adjust Exposure Compensation to -0.3. As I said, the sensor in the RX10 V runs hot, and using some negative Exposure Compensation will help to tame the highlights and produce deeper, richer colors. The Exposure Compensation setting will

be saved with your other settings so that when you go into Bird and Wildlife memory mode, you will not have to change it every time.

Zoom the zoom all the way out to 600mm. The position will also be saved with all your settings so that when you go into Bird and Wildlife mode, or turn the camera on with it already set to Bird and Wildlife mode, the zoom will automatically extend to 600mm. (Warning. The camera saves the zoom position when you turn the camera off, so if you zoom out wider in your Birds and Wildlife mode and then turn the camera off, it will zoom out only that far when you turn the camera back on, no matter what your memorized settings are.)

Finally we are going to register our secondary Focus Area for Birds and Wildlife. Reopen the Menu. Choose Focus, Focus Area, Focus Area and set it to your secondary Focus Area choice. In my case it is Expandable Spot. Close the menu and long press the Function Button until you get the message telling you that the Area is registered. Open the menus again, and return to Focus, Focus Area, Focus Area, and reset it to your primary choice. In my case that is XL-Spot.

Now we are going to save the whole set. Select the Main Camera Menu. Select Shooting Mode from the column to the right. The top option on the right is now Camera Set Memory. Open it. You will get a screen showing all your current settings with "Memorize this setting" across the top. Check them if you can decipher the icons. Select OK. You will see a screen which asks you to set a title. Touch the current name, MR1, and you will get a old fashioned keyboard like the one you hated on your first flip phone (if you an remember that). You have to scroll to a set of letters (best done with the 5 Way Control), and press the center button as many times as need to select the letter you want from the group. To make a Capital, you have to scroll to the Up Arrow and select it with the center button before you choose your letter. There are also left and right arrows to move within your text, and a delete key (white with and X in it). It is fiddly and funky and bothersome. But with patience you can type in a name. I highly recommend something really simple, like BW for Birds and Wildlife. When you select

okay, which you have to scroll down to, you will get a screen with a list of 10 memory slots, numbered 1 - 10, MR1, MR2, etc. MR1 should already be selected. Do not Okay it! We are going to save Birds and Wildlife to Memory 3. This is important. Later on we will program a button to switch instantly between our custom shooting modes. When in Birds and Wildlife and a bird suddenly flies right overhead, we can be in Flight and Action with a single button press, and back to Birds and Wildlife with another press of the same button. We will store our Landscape and Macro modes in Memory 1 and 2. There are already spots on the Main Mode Dial for those two memories. You have time to move the main Mode Dial to position 1 or 2 when faced with a landscape or macro. Neither is going anywhere soon. Touch MR3...or better yet scroll down to it and press the center button on the 5 way control. It is very easy to touch the wrong Memory on this screen. Select OK. You will see a screen that tells you your Mode is committed to memory. Select Okay.

For those of you who already had a BW created in the Intermediate Guide, you have just moved it to MR3. Your original is still in MR1, and will remain there until you overwrite it with either your Landscape Mode or Macro mode in part two of these Advanced Guides.

For now, until you get your custom buttons set, to access your new Birds and Wildlife shooting mode put the Main Mode Dial in the Star (☀️) position, open the menus, go to Camera, Shooting Mode, Shoot Mode, and set it to MR3. Once we have a custom button set to Switch Shooting Mode it will be as easy as pressing the button. (You can also do this, easier, using the Function Menu and the Mode icon (bottom row, far right.)

Give yourself a hand! Refill your coffee. Take a stroll around the house and get the kinks out. You have just successfully programmed your RX10 V to shoot Birds and Wildlife!

Condensed list of changes: Birds and Wildlife

Put the main Mode Dial on P for Program. Open the menu system with the button.

Set Camera, Image Quality/Rec, JPEG/HEIF Switch to HEIF (4.2.2)

Set Camera, Image Quality/Rec, Camera File Format to HEIF

Set Camera, Image Quality/Rec, HEIF Quality to Extra Fine

Set Camera, Image Quality/Rec, HEIF Image Size to L:20M

Set Camera, Shooting Mode, Camera Shout Mode Limit to MR3, MR4. (uncheck all other modes) We will store our B&W Shooting Mode in MR3, and our F&A Shooting Mode in MR4.

Set Camera, Drive Mode, Drive mode to Continuous Shooting, Lo (Low, 5 fps)

Set Camera, Shutter, Shutter Type to Electronic

Set Camera, Image Stabilization, Camera Steady Shot, to ON

Set Camera, Zoom, Zoom Range, to Optical Only

Set Exposure, Exposure, ISO to Auto

Set Exposure, ISO Range Limit to Minimum 100, Maximum 8000

Set Exposure, ISO AUTO Min. SS to either Standard or 1/250th (they do much the same thing)

Set Exposure Metering, Metering Mode to Center.

Set Exposure, Color/Tone, DRO, to Auto

Set Exposure, Color/Tone, Creative Look to STD (Standard), and make these modifications to the parameters: Highlights -9, Shadows +3, Sharpness 6, Sharpness Range 4, and Clarity 2.

Set Focus, AF/MF, Focus Mode to Continuous

Set Focus, Focus Area, to XL-Spot

Set Focus, Focus Area Limit to Wide, X-Large Spot and Expanded Spot, (uncheck all other options).

Set Focus, Focus Area, Register Focus Area to ON

Set Focus, Subject Recognition, Subject Recog in AF to ON

Set Focus, Subject Recognition, Recognition Target to Auto, and in that same display open the Auto options and limit them to Animal, Bird, Insect.

Set Focus, Subject Recognition, Recog Trgt Select Set, to Auto, Animal/Bird, and Insect. (uncheck all other options)

Set Focus, Subject Recognition, Recognition Target, Animal/Bird, Animal Details, Recognition Sensitivity to 4

Set Focus, Subject Recognition, Recognition Target, Animal/Bird, Bird Details, Recognition Sensitivity to 4

(Or do these settings directly in the Animal and Bird targets.)

Set Focus, Subject Recognition, Recognition Target, Insect, Sensitivity to 4.

Set Focus, Focus Assistant, Auto Magnifier in MF to Off

Set Focus, Peaking Display, Peaking Display, to Off

Set Focus, Focus Area, Focus Area to your secondary Focus Area choice: Expanded Spot

Close the menus.

Set Exposure Compensation to -0.3 using dial 2 on the top outside right of the camera.

Zoom the zoom all the way out to 600mm

Register your secondary Focus Area choice by long pressing the Function Button.

Open the menus again.

Return to Focus, Focus Area, Focus Area and reset it to your primary Focus Area, XL-Spot.

Under Camera, Shooting Mode, Camera Set Memory, give this shooting mode a name, and save it to MR3. (you will have to OK the steps 4 times).

Celebrate.

For now, until you get your custom buttons set, to access your new Birds and Wildlife shooting mode put the Main Mode Dial in the Star (☀️) position, open the menus, go to Camera, Shooting Mode, Shoot Mode, and set it to MR3. Or open the Function Menu and use the Mode icon to make the change. Once we have a custom button set to Switch Shooting Mode it will be as easy as putting the Main Mode Dial in ☀️ and pressing the button.

Action and Flight



Since the next set of modifications, for Action and Flight, uses all but a few of the same settings, let's dive right in. (Once more there is a compressed list of changes at the end of the section for those who dare.)

Put the Main Camera Control Dial in the Star position (☀️). Open the menus and Camera, Shooting Mode, Shoot Mode and select MR3 (or use the Function menu and the Mode icon). This will load all your Birds and Wildlife modifications.

Select the main Camera menu. Select Drive Mode, Drive Mode. Change from Continuous Shooting Lo (low), to Continuous Shooting Hi (high). This will increase your frame rate from 5 frames per second to 15. Again, I find that 15 fps is plenty to give me every possible angle of a flying bird's wings, and to catch the subtleties of wildlife action. More than 15 fps will, once more, fill your card with lots of all but duplicate images. Even 15 fps will leave you with several hundred shots every time you press and hold the shutter. Shots that you will have to go through to select the absolute best one. And if the camera is doing its job, they will all be correctly exposed and in focus.

Select the Exposure Menu. Select ISO Auto Min SS. Change your minimum shutter speed to 1/2000. This is fast enough to freeze all but the wing tips of flying birds (and the wings of hummingbirds) and to stop all but a charging cheetah in mid-stride. If you

do want to completely freeze all motion, set Min SS to 1/4000, but realize that will mean much higher ISOs when shooting Action.

Select Focus, Focus Area, Focus Area Limit. Check non-tracking Large Spot. This will give you an option for birds in flight (Wide) and an option for action on the ground (Large Spot). Select OK to lock them in. In my experience having both Subject Recognition with eye tracking and conventional predictive motion tracking on at the same time only confuses the focus system when there is any clutter in the view, and slows it down even when there is no clutter. You are actually doubling the processing load on the processor. The camera is trying to do two jobs at once, and it struggles to do either well. Subject Recognition and eye-tracking is very good at finding, focusing on, and tracking your subject, even when your subject is technically outside your chosen focus area. Let it do its job. And if you do not follow all that just take my word for it. Subject Recognition and Eye-tracking Focus works better with Tracking turned off.

Now set Focus Area to your secondary choice for Flight and Action: Large non-tracking Spot.

This next one is not necessary but worth a try, especially if your action is primarily birds in flight. You can go back to the Subject Recognition menu and open your Bird and Insect targets and set the recognition Sensitivity to 5, since the birds and insects will mostly be against a clear background. This limits the effectiveness of the setting when the birds are active on the ground, generating way too many false positives when in the Wide Focus area, but switching to one of the narrower focus areas will often solve that.

Close the menus.

Set your Exposure Compensation to -0.3, and your zoom to 600mm.

Register your secondary Focus Area by long-pressing the Function Button.

Open the menus.

Return to Focus, Focus Area, Focus Area and reset your Focus Area to your primary Focus Area choice: Wide

Select Shooting Mode under the Main Camera menu and open Camera Set Memory. Select OK. Give this custom shooting mode an appropriate name. (FA, AF?) This time when your list of memories appears, select MR4. This is essential. MR3 will be selected. You must change that to MR4, otherwise you will over-write the settings you worked so hard on the first time through. When it says you have saved your settings, select Okay.

You now have programmed your modifications for more or less stationary birds and wildlife and for action and flight to Memory positions MR3 and MR4. Until you get your custom Switch Shooting Modes button programed, the way to access Flight and Action is to put the main Mode Dial in the Star (☀️) position, open the menus, go to Camera, Shooting Mode, Shoot Mode and select MR4. (Or use the Function Menu and the Mode icon.) Before going out into the Field, you should save yourself some frustration and take the time to program your buttons, so Switching Shooting Modes can be done with a button press. Then you go out and Point and Shoot Birds and Wildlife.

Condensed list of changes: Flight and Action

Put the main Mode Dial in the Star position.

Open the menus system with the button

Camera, Shooting Mode, Shoot Mode, set to MR3, your Birds and Wildlife modifications (or use the Mode icon in the Functions Menu).

Camera, Drive Mode, Drive Mode. Change from Continuous Shooting Lo (low), to Continuous Shooting Hi (high, 15 fps)

Exposure. Exposure, ISO Auto Min SS. Change your minimum shutter speed to 1/2000.

Focus. Focus Area Limit. Add Large Spot.

Set Focus Area to your secondary choice, L-Spot.

Close the menus.

Register your secondary focus area by long pressing the Function Button.

Set Exposure Compensation to -0.3

Check that the zoom is all the way out to 600mm

Open the menus.

Return to Focus, Focus Area, and reset it to your primary focus area: Tracking Wide.

Under Camera, Shooting Mode, Camera Set Memory, save these settings to MR4.

And again, to access your Flight and Action Mode, until you get your custom buttons set, you will have to open the menus, go to Camera, Shooting Mode, Shoot Mode and set it to MR4 (or use the Mode icon in the Function Menu.)

Setting Custom Buttons and Controls

One of the things that makes the RX10 V such a joy to use in the field is the ability to program almost every button and dial on the body to do what you often need to do at the press of a button or twist of the dial. (Again, there is compressed list of changes at the end of this section.)

Open the menus. Select the toolbox icon. Select Operation Customize. Select Camera (the little camera icon) Custom Key/Dial Set. You will get a set of diagrams with the various buttons and dials you can customize highlighted. (if this is your first visit here you will get a message saying that pressing any button on the camera will show its current setting. You can check the “don’t show again” option. Your diagrams are Rear 1, Rear 2, Back, Top, Lens, Dials, down the left side. Begin with Rear 1. Some buttons already have default functions. Some do not. When you select a Button you will get a page that displays all the menu options from the current function on the right to the main menus on the left. The current function is highlighted at whatever level you would find it. To change the setting you need to navigate to the main menu where your desired settings live and select that setting.

Under Rear 1 I reprogram the AF-On button to do two things at the same time. What I want to happen when I press it is for the Auto Focus to engage (as it is already programmed) but also I want the Focus area to switch to the secondary, more precise focus areas we already Registered and saved to our Shooting modes. To do that I navigate to Camera, Shooting Mode and select Recall Custom hold (1, 2, or 3). When I do a menu opens with all the functions I can program to that button. They are all checked. We only want to change the Focus Area and Auto Focus On, so go down the list and uncheck all the others. Then I select Focus Area and set to Registered Focus Area. Then I scroll down bottom and set AF-On to On. Now when in Birds and Wildlife, which has a primary Focus Area of XL-Spot with the shutter button, I can engage Expanded Spot by pressing the AF-On button. When I release the AF-On button the Focus Area will return to XL-Spot. I can use the shutter button to take photos while

holding the AF-On button and force the camera to use the Expanded Spot for Focus. This works really well when the bird or critter suddenly drops into deep brush, and XL-Spot is no longer working. Just use the AF-On button and place the Expanded Spot on any visible portion of the subject and it should find the eye and focus. It also works with subjects too distant to be recognized.

I program the Movie buttons to a second Recall Custom hold. For this one I deselect all but Metering and Exposure Compensation. I set Metering Mode to Highlight, and Exposure Compensation to -0.3. This helps when the highlights are blowing out. Press the movie button and the camera drops into highlight protection mode.

I change custom button 3 (the trash can) to Switch Shutter Type. For this button that means going to the Main Camera Menu, Shutter, and selecting Shift Type Switch. Note that Shift Type Switch is not an option on the regular menu system. It is only available to be assigned to a button.

Now select Back 2. The first button is actually the multi-selector (joystick control). You can program what happens when you press in on the joystick. I set it to switch quickly between focus areas (previously assigned to C2 on the top of the camera, but I want that button for something else). Select it. Navigate to the Focus menu, Focus Area, Switch Focus Area. This is another function that is only available to assign to a button. Now when you press in on the joystick it will cycle through your focus area options for whichever shooting mode you are using at the moment.

I set button 5, the lower edge of the 5-way control, to Metering mode. It is set to Exposure Compensation by default, but since we already have a dial for that, it makes more sense to be able to access the actual metering mode for those times when you want to switch from Spot metering to, say, Highlight, or Multi for improved effects.

I set the center button of the 5 way control, #2 in the diagram, to Focus Standard so that pressing it returns the Focus Area to the center of the screen.

Move to the Top section. I program Custom Button 1 (C!) on the top the camera to Shoot Mode Switch (Camera, Shooting Mode, Shoot Mode Switch)—because I only have two Shooting Modes active, with Main Mode Dial in the Star position, pressing Top button 1 switches rapidly back and forth between them. Memory 3 is my Birds and Wildlife. Memory 4 is Flight and Action. This is so very useful in the field! Because Landscape and Macro are set to MR1 and MR2, when I want to shoot a landscape I just put the Main Mode Dial in the 2 position. When I want to shoot a Macro, I put the Main Mode Dial in the 1 position. Both landscapes and macros give me plenty of time to change the dial. Birds and Wildlife and Flying and Active birds and wildlife, not so much. When I want to shoot people or events, I put the Main Mode Dial in the Auto position, and shoot way.

Top button 2 I program engage Direct Manual Focus when the camera is stuck and will not focus on my subject even though it is right there in the center of the view. Open Button 2. Navigate to Recall Custom Hold 3 (chances are you already used 1 and 2 above) under Camera, Shooting Mode. When you set this you will again get a menu of things you can program. Turn all of them off, except for Focus Mode, and AF On. When you select Focus Mode, you will have the option to set DMF. Set it. Set AF On to On. Then in the field when focus is absolutely refusing to find your subject, you and press Button 2 to instantly engage DMF and use the focus ring to get close enough to focus for the camera to recognize your subject.

I program the Lens Focus Hold button to momentarily boost the Drive rate to Medium (15 fps) for unexpected bursts of action. That is Camera menu, Drive Mode, Cnt Sht Spd Bst w/ Hold.

Finally, as a personal choice I also reprogram the two top dials so that Exposure Compensation is on dial One, and TV (Shutter, effectively Program Shift) is on Dial 2. That is where my fingers want them, since I change Exposure Compensation way more than Program Shift. If you do this, you must remember you did it, not only in the field,

but when using the dials in conjunction with the menu to set future parameters for custom Shooting Modes Landscape and Macro.

A reminder that, unlike the modifications we have made for birds and wildlife and action and flight, these custom button changes are global. They apply across all modes. You cannot have different button assignments for your different shooting modes (though you can for video). Most do not actually work in Auto mode, and the Switch Shoot Mode only works with the main dial set to the Star position, but in any other mode your button and dial customizations will apply.

Condensed list of changes: Custom Buttons.

Under the Toolbox menu, Operations Customize, Custom Key/Dial Set

Rear One: Change Change Button 1, the AF-On button, to Recall Custom hold 1, and set Focus Area to Registered Focus Area and AF-On to ON. Change the Movie button to Recall Custom hold 2 and set it to Highlight Metering and Exposure Compensation -.03. Change 3 to Shtr Type Switch so you can quickly switch from Electronic to Mechanical and back at need.

Rear Two, Change 1 to Switch Focus Area, change 2 (the center button in the 5 way control) to Focus Standard. change 5 to Metering Mode

Top, change 1 to Shoot Mode Switch, change 2 to Recall Custom hold 3, with only Focus Mode checked, and set to DMF

Lens, change 1 to Cnt Sht Spd Bst w/ Hold

If you like, reverse the setting of top dials 1 and 2.

Now that you have a Birds and Wildlife Shooting Mode programmed to MR3 and Fight and Action programmed to MR4. Accessing them is as simple as putting the Main

Mode Dial in the Star position, and pressing Top Button 1 to switch back and forth between them. Point and Shoot.

The end of part one.

And that is about it for birds and wildlife. Set the camera up. Make the decisions only you can make and make the camera automation play by your rules. In the field, pay a little attention to what the camera is doing or you are asking the camera to do. Spend most of your attention on finding the subject that needs imaging, framing it, pressing the shutter and sharing it.

And don't let anyone tell you you are not a real nature photographer because you do not shoot in manual and RAW.

That is Point and Shoot Nature Photography with the Sony RX10 V, part one.

In part two we will take a look at Landscape and macro. Lots more fun to come.