

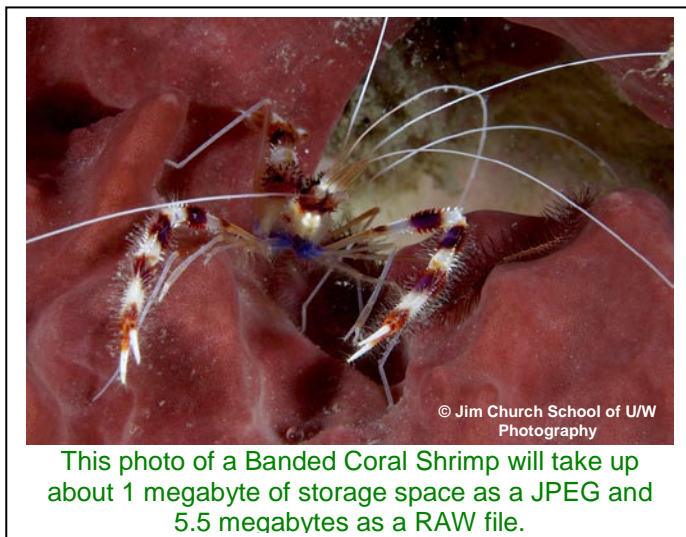


RAW OR JPEG – WHAT’S BEST FOR ME?

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Most of today’s digital cameras provide us with the option to deliver either RAW or JPEG files when we shoot. Actually, every picture a digital camera produces is, initially, a RAW file. When we opt to shoot JPEG, we tell the camera to keep working and process that RAW file. Then, after processing, throw the unused data away after writing the JPEG file to the storage card. So, why give us a choice? What are the benefits of one over the other? Let’s look at a few of the key points you should consider when making the choice of RAW or JPEG.

First and foremost, some cameras do not give you the RAW option. If that’s the case with your camera, JPEG will do you just fine, but read on to see what RAW has to offer.



This photo of a Banded Coral Shrimp will take up about 1 megabyte of storage space as a JPEG and 5.5 megabytes as a RAW file.

When it comes to file size, given an image with the same number of megapixels, a JPEG will be fewer megabytes in file size than a RAW image. So a 6 megapixel photo might take up less than one megabyte of storage space as a JPEG file, but it will be 5.5 megabyte as a RAW file. That’s an important consideration if you have smaller memory cards for your camera or you do not have a lot of free hard drive space in your computer to store your images. But cards and hard drives cost less today than a year ago, so file size should not be the primary determining factor when deciding to shoot either JPEG or RAW.

Depending on your camera, it may take a while for it to write the larger RAW file to the memory card. This could pose a problem if your subject action is happening fast and you have to wait for the camera to finish writing before it will shoot another photo. You could, potentially




miss a shot. We see this write speed issue mostly with Point and Shoot cameras. The SLR cameras keep up with the action just fine.

JPEG is a universal file format. Any computer made within the last 10 years can read it without much trouble. However, the RAW file is a proprietary format and requires a translator for a computer to be able to read it. That’s not so difficult if you keep your computer up to date. But, if you want to send a RAW file to your friend who is a little computer challenged, well his computer might not be able to open your RAW file.

So far, the advantage seems to be with JPEG. But now let’s look at what RAW has to offer. Remember that data we said the camera throws away once it processes the shot to a JPEG? Well, if we shoot in RAW mode, the data stays. That’s one reason why we have a bigger file. In certain situations, that extra data will prove invaluable. Here is one example of that. If you shot an entire dive using the wrong white balance, you have a limited range you can

correct to if you were shooting JPEG. But if you were shooting RAW, you can adjust the white balance after the fact, in your computer, correct to the proper color and not lose any image quality.


But the extra information is not just useful to correct mistakes. Even with a properly exposed image, you can utilize that extra information the RAW file holds to recover lost highlight detail or enhance shadow detail that would not be possible with a JPEG file. You can convert images to black and white, capturing a greater tonal range utilizing a RAW file as opposed to a JPEG file.

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| <p>This photo was taken with the camera set for the wrong White Balance</p> | <p>This photo shows the limit of correction the JPEG has to offer.</p> | <p>This photo shows the correction possible if the photo was originally taken in RAW mode.</p> |

Changes made to a JPEG can be permanent if you are not careful. Unless you save your changes as a copy file of your original JPEG, you could lose your ability to return to the JPEG's original state. Not so with a RAW file. Any adjustments you make to a RAW file are considered "Non Destructive" adjustments. That means you can go back to the file's original state any time without losing image quality.

What about your friend, the computer challenged one? How is he going to see your award winning photos if you shoot in RAW? Simple. After you've made your image adjustments, if any, simply export out a JPEG version to email him. You have utilized the benefits of the RAW file and your brother will still be able to see your images.

So, what's it going to be, RAW or JPEG? If you are happy with the images that come directly from your camera and intend to do only minor adjustments to them, then maybe JPEG is right for you. But if you want a greater range of image data to work with to satisfy your creative or experimental side, then consider exploring the RAW option on your camera.

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|  <p>© Jim Church School of U/W Photography</p> |
| <p>Changing the exposure overall on this photo will bring out more shadow detail, but will over expose the highlights and mid-tones.</p> |

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|  <p>© Jim Church School of U/W Photography</p> |
| <p>Using the RAW controls, we can bring out the shadow detail while leaving the mid-tones and highlights untouched.</p> |