



The Newsletter of E.J. Peiker - Nature and Travel Photography

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Bay of Fires - Tasmania (a7R IV, 16-35mm)

## **E.J.'s Great Tasmania and Victoria Adventure**

Several years ago, I met John Wiseman, an Australian Photographer, on an Iceland Workshop that I was co-leading for NatureScapes.net. A couple of years later I was passing through Sydney enroute to Western Australia's Kimberley region. We met for a day in Sydney on John's birthday, not too far from his home to the south. John grew up in Tasmania and encouraged me to make my next trip downunder to this island state. After three years of talking about it and serious planning for the last year, aided massively by John's childhood friend and still resident of Tasmania, Robert Heazlewood (recently retired Director of Brand Tasmania, Tasmania's "place of origin" branding initiative), we finally made the journey happen in October, 2019. For two weeks John and I traveled extensively all over the Tasmania, staying at a different hotel almost every night. We photographed everything from the central highlands with its lush rain forests and alpine mountain peaks and lakes to the rugged coastline and inland waterways. The primary goal was landscapes, but we also managed to shoot quite a bit of wildlife.

Australia is composed of six states and two territories in a size that is approximately equal to the United States minus Alaska. Tasmania is the only Australian state detached from the mainland. It only became detached between 10,000 and 11,000 years ago during sea level rise caused by the melting of the last ice age. Tasmania's original people are Aboriginals that date back as far as 35,000 years ago. The first European sighting of Tasmania was documented by the Dutch explorer Abel Tasman and he named the landmass Van Dieman's Land in honor of his expedition's financial sponsor. Tasmanian Aboriginals were the only people that populated the island until 1803 when the British began to occupy the island. A combination of the spread of infectious disease, an undeclared racial war (The Black War) in the early 1800's between the white British occupiers and the dark-skinned aboriginals, plus relocation of remaining Tasmanian Aboriginals to Flinders Island northeast of Tasmania, eliminated Aboriginals from the island. The name of Van Dieman's Land was officially changed to Tasmania in 1856 when self governance was granted to the island. The seat of government in Tasmania has resided in Hobart since 1812.

I departed Phoenix on October 15<sup>th</sup> with a short flight to Los Angeles. Even though I flew business class, I was invited to the Qantas First Class only lounge at LAX due to my One World Emerald status. I have been in many airline lounges around the world and the LAX Qantas First Class lounge is among the very best, easily topping any lounge of any US carrier, even the so-called Flagship lounges. It is much better than even Qantas' own First Class lounges in Australia – ambience, food, and service is absolutely top-notch. I boarded a Qantas A380 five-hundred passenger behemoth for a smooth 15.5 hour upper deck ride to Melbourne. Due to crossing the international dateline, I landed on October 17<sup>th</sup> completely skipping October 16<sup>th</sup>. After a four-hour layover in Melbourne I flew to Hobart, Tasmania on a Qantas 737. This flight was about 30 minutes late due to a late arriving crew. John was waiting for me and we immediately departed for our first stop, a possible opportunity to photograph the only Australian species of waterfowl that I do not have in my archives, the Musk Duck. We met with a birder who had spotted one in a large bay but unfortunately it never came closer that spotting scope distance so there were no photos to be had. After this we drove to the top of Mount Wellington which sits over 4000 feet above Hobart and got some great views of Tasmania's largest city, population just under 250,000. Moving clouds below us would obscure and reveal the city below making for an interesting late afternoon. Returning to Hobart we checked into our hotel on the harbor and went out for a nice Italian dinner.

The next morning, we checked out and drove to a great sunrise spot on the Huon River. The beautifully colored early morning clouds and dead calm water made for incredible reflection shots. From there we visited Snug Falls and then made our way to the former and very historic penal colony of Port Arthur. For those unfamiliar, a significant part of Australia's heritage is as a penal colony under English rule. Unfortunately, our trip around this area was cut short by heavy rain squalls. We spent some time in the



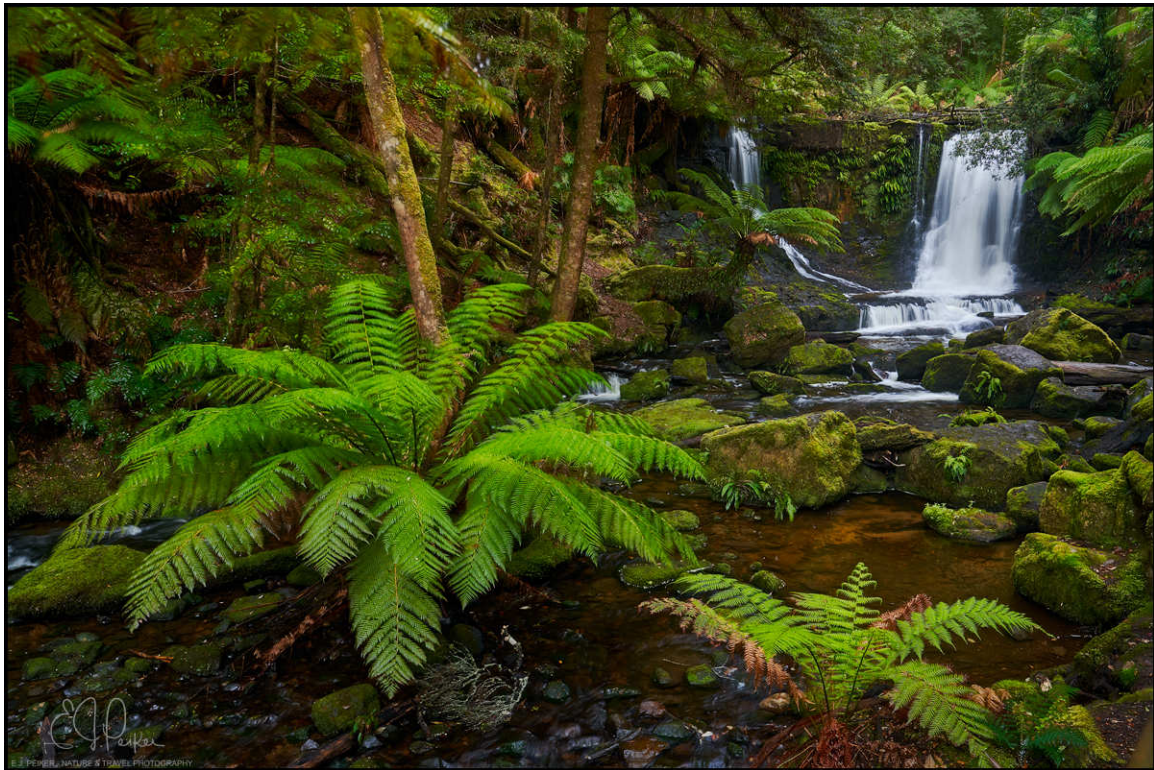
Huon River, Tasmania (a7R IV, 24-70mm)

coffee shop in the visitor's center. There, I learned that where we were sitting was the exact spot where the mass shooting of 48 people and 35 deaths occurred in the 1996. This led to Australia's strict gun laws. It was a chilling thought to know that right where I was enjoying a latte, many people were senselessly murdered. It also, of course, made me think of the huge problem we have in the USA with this sort of thing and no political will to actually solve.

Still in the Port Arthur area, on the third day in Australia we chartered an early morning boat for just the two of us. This made it possible for us to photograph the beautiful and rugged coastline of Tasman National Park as well as Shy Albatross, Australasian Gannet, Short-tailed Shearwater, and Brown Fur Seal. One pair of Albatross landed right by our boat and then proceeded to pose for hundreds of shots. After this we drove back to Hobart and went to the weirdest museum I have ever been in, the Museum of Old and New Art or MONA. To say that many of the pieces were bizarre would be an understatement.

On October 20<sup>th</sup>, our trip into the interior of Tasmania commenced. We started with an early morning drive into Mount Field National Park to photograph two of Tasmania's many photogenic waterfalls – Russell Falls and Horseshoe Falls. The trek to Horseshoe Falls was a muddy scramble due to the trail being out and under repair. We then continued westward and stopped to do the short hike to Tarraleah Falls. These falls were very tough to photograph as the window to get a clear shot with ferns below was no larger than 1 cubic foot on tip-toes with the camera high overhead (thankfully my camera has an LCD screen that tilts downward). Our journey continued all the way to the western part of the island state at Strahan in Macquarie Harbour. After checking into our accommodations for the next two nights, we drove out on a peninsula to an area known as Hell's Gates. This is a rough water inlet with two lighthouses to guide ships into the very large inland bay. (Note: in Australia many of the naturally formed

large bays are called Harbour's, not to be confused with the American definition of a harbor which is usually a man made docking area for boats. In general we would name Australian "harbours" as "bays" – San Francisco Bay would likely be called San Francisco Harbour if it were in Australia.)



Horseshoe Falls, Tasmania (a7R IV, 24-70mm)

The next morning, we repeated our drive up the peninsula but stopped along the way at a small marina where we were able to photograph boats and ships emerging from the fog. We followed this up with a return to the lighthouses in better light than the night before. Later in the morning we made an errant trek into the bush in an attempt to get to some coastal sand dunes but were turned back when the track exceeded what our vehicle was equipped for. Even though we were in a large Toyota Land Cruiser, we did not have the large oversized deep tread off-road tires nor did we have enough break-over clearance to continue. We had to back out for about a half kilometer in 4-wheel low. In the afternoon we visited Hogarth Falls near the town of Strahan. Of the many waterfalls visited on the journey, these were probably the least photogenic but the walk through the forest to get to them was beautiful. We ended the day with a filling Buffet at a hilltop restaurant.

The 22<sup>nd</sup> of October found us driving north to a wonderful river lodge in Corinna. This place was completely disconnected from the outside world and even required John's Toyota Land Cruiser to be pulled across a river on a cable driven barge. I photographed my first Pademelon here; a small Kangaroo like marsupial. We again chartered a boat and went down the Pieman River photographing the beautiful trees and their reflections. We got off at one point for a very short hike to a waterfall in the woods that feeds its outflow into the river. Unfortunately the flow at Lovers Falls was fairly low due to recent drought conditions. The next morning, we photographed incredible reflections and atmosphere over the river before moving on to a major highlight of the trip – Cradle Mountain National Park. Enroute we hiked up an area called Cradle Mountain View to get a good view of the mountains and also stopped at Philosopher Falls – unfortunately the cloudless sunshine made this otherwise great waterfall really difficult to photograph as it is in a canyon that is partially in light and partially in shade. The track to view

Cradle Mountain from a distance was under a large power line and when I placed my tripod under the high overhead lines, every time I touched anything metal including my tripod metal parts, I could feel the electrical current from the power lines above - I was getting shocked. This was a bit scary and also made me worry about its effect on my Sony a7R4 so I found a place where this didn't happen. A huge fire was burning to the west that made for some really interesting and scary photos. In the evening, after checking in at the very nice Cradle Mountain Lodge we photographed the mountain from the shores of Dove Lake.

The next morning, we repeated the Dove Lake shoot of Cradle Mountain and this time the water was smooth creating great reflections. I also hiked to another lake called Lake Lilla for alternative angle shots of Cradle Mountain with a stream and whirlpool in the foreground. From there we went to a wildlife conservation center to see and photograph Tasmanian Devils. We even got to photograph two babies interacting with each other and their mother. Late in the day we hiked the Enchanted Trail and found a Wombat in a small meadow as a willing subject for the camera; for a while at least. Ultimately, he decided to run towards and then by me which made for great shots and a great test of Sony's animal eye-tracking autofocus which worked flawlessly throughout the trip on many mammals. Another drive at the end of the day towards Dove Lake found us in a field with many Wombats to photograph.



Cradle Mountain at Dove Lake (a7R4, 16-35mm)

After great weather for the previous few days, the 25<sup>th</sup> of October was forecast to be a turning point, so I used the early morning overcast before the rains came as an opportunity to hike to and photograph three waterfalls near our lodge – Pencil Pine Cascades, Pencil Pine Falls and Knyvet Falls. After check-out we made our way to the northwestern corner of the state with stops at both Guide Falls and Dip Falls. Along the way we stopped for the second time in Waratah, home of the best coffee I have ever had at the Mushroom Café. Arriving in the northwest the weather had really turned for the worse with strong driving winds, occasionally with heavy rain. This made shooting the Tulip fields on Table Cape impossible. During a break in the weather we stopped at Rocky Cape National Park for some coastal landscape shots from sea level. After checking into a very nice restored old hotel in Stanley we drove up the hill for a great view of The Nut which is a cape that Stanley is nestled up against.

For sunrise the next morning we went back up to The Nut viewing area and were treated with some excellent sunrise clouds. After checking out and a hearty breakfast, we went back to Rocky Cape and this time found a high lighthouse vantage point for some truly spectacular coastal landscapes. This area has some very rugged coastline that was excellent for long exposure photography to smooth out the sea below. We drove back up Table Cape but still were still unable to photograph the Tulip Fields due to heavy winds and very muddy conditions from the previous day's rains. Leaving the area, we stopped at

Fern Glade near John's former hometown of Burnie and saw Platypus and photographed Chestnut Teal. We stayed overnight in Burnie.

Sunday October 27<sup>th</sup> marked the beginning of our journey back to the eastern side of Tasmania. Along the way we photographed the picturesque Liffey Falls. We also photographed Kangaroos and Australian Shelducks in Mole Creek and then proceeded to St Helens in the northeast. This is the home of some great coastal landscapes highlighted by orange lichen covered rocks. In this area we photographed Binalong Bay and Bay of Fires both in evening and early morning light. We had spectacular pink clouds at dawn at Binalong Bay. Some of my favorite photos from the trip are from this area (see the cover image to this newsletter above). After breakfast we cruised down the coast to Freycinet National Park. This is the home of The Hazards, a rugged group of mountains, and the spectacular Wineglass Bay. In the afternoon, we hiked to a high overlook of the bay. I liked it so much I wanted to do it in better light at sunrise, so John dropped me off at the trailhead an hour before sunrise on the next morning and I did it again, hiking up in the dark, and got some very nice photos in early morning light.



Eastern Gray Kangaroo (a7R IV, 100-400mm)



Wineglass Bay, Tasmania (a7R IV, 16-35mm)

After Freycinet National Park we made our way back to Hobart where we had a few things planned but very strong smoke from a wildfire with strong western winds made visibility very poor and breathing outdoors difficult. So, we took the afternoon off for the first time since we started almost two weeks earlier. The next morning, I got up early and photographed sunrise in calm waters on the waterfront and then John and I went for a stroll around this area and had a nice breakfast in Hobart's popular Salamanca District. Later that morning I finally got to meet the man that put much of the itinerary together, Robert Heazlewood. While John was attending to other business, Robert and I had a great day cruising all around and just taking in the area south of Hobart. In the evening, the three of us had a great farewell dinner at a wonderful Italian restaurant. Both John and Robert know the owner of the restaurant and we received VIP treatment with a lot of complimentary additions to our meal. What a great way to end the time in Tassie.



Hobart, Tasmania (a7R IV, 16-35mm)

The next morning John took me to the airport before starting his journey back to mainland Australia via car ferry. I landed in Melbourne around noon. This; however, was not the end of my journey...

About 25 years ago I first saw pictures of Australia's southern coastline along what is called the Great Ocean Road. It starts just west of Melbourne in Australia's state of Victoria and it proceeds west from there along a spectacular coastline of towering cliffs, sea stacks, rain forests, waterfalls, and many great rock formations. Several National Parks are along the route including the crown jewels of the area - Great Otway and Port Campbell National Parks. I put the Great Ocean Road on my bucket list 25 years ago before "bucket lists" even existed. Since I was flying home through Melbourne, I had the opportunity to finally do it. After landing I picked up my rental SUV and off I went. During the next 6 hours I drove from Melbourne to the small town of Port Campbell driving the curvy and hilly Great Ocean Road route. I made a few stops along the way including Erskine Falls in Great Otway National Park and the most famous spot of all along Australia's Southern Coast, the 12 Apostles – a grouping of Sea Stacks just off the coast viewable from a series of cliff trails. After checking into my hotel in Port Campbell I went back

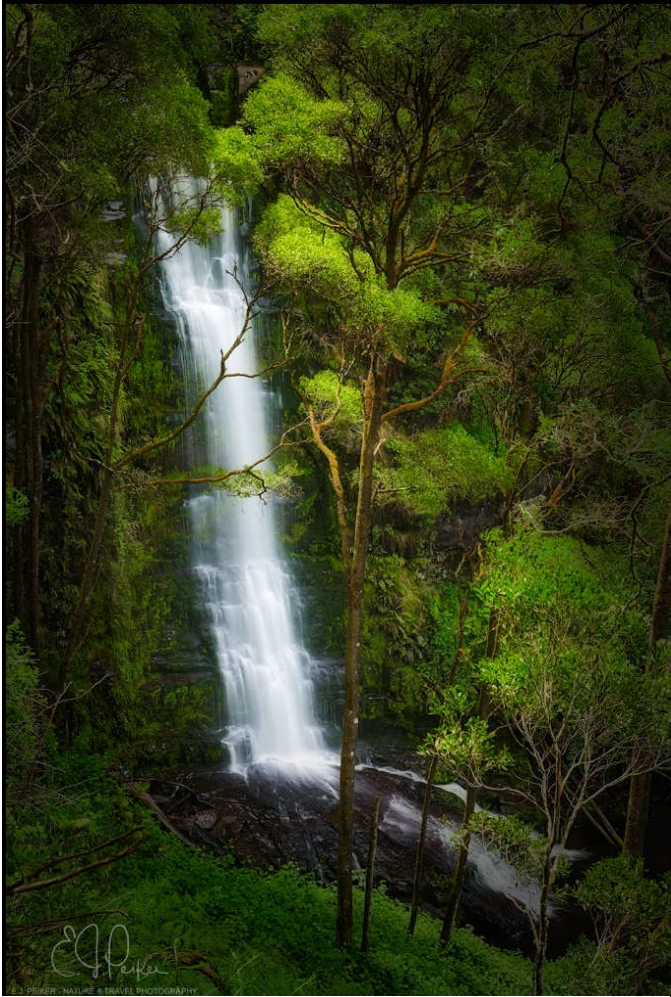
to the Apostles for a sunset shoot and stopped at several other dramatic lookouts. I tried to accomplish as much as possible in one evening because the next two days called for bad weather. Despite a forecast for rain the next morning, I poked my head outside at 5:15AM and saw the very first signs of color in the sky so I quickly departed for a sunrise shoot location I had charted out on an ephemeris program on my phone. I went to a great overlook of an offshore sea arch called London Bridge and was treated to some nice pink early light and some photos I am very happy with. I went back to the Apostles for an early morning shoot thereafter. By mid-morning, the winds and rain came and the temperature dropped from 31 degrees Celsius to 15C in just an hour. I spent the afternoon plotting my plan of attack for the next day which would be very wet in the morning hours with a chance of clearing in the afternoon. I also visited a few other locations and took some bad weather shots of the coast. I knew they wouldn't be great photos but they were places along the Great Ocean Road that I did want to visit.



London Bridge, Victoria (a7R IV, 24-70mm)

On my third day along the southern coast of Victoria, as predicted, it was raining; at times it was raining hard. I usually go into the woods when it is raining as a forest can provide some excellent photo opportunities. My destination was two waterfalls about an hour and a half away in Great Otway National Park - Hopetoun and Beauchamp Falls. Both required a little bit of hiking in the rain, but both were worthwhile from a photographic perspective. As I was driving towards the first two waterfalls, I noticed a sign for Triplet Falls in the heavy fog. This is not one I had researched ahead of time but I took a chance on it since it was only 7 kilometers off of my route back to my hotel. It also required a bit of a hike and while difficult photographically due to lots of vegetation in the way, it was still a beautiful rain forest setting. After this I drove back to Port Campbell in hopes of a late day clearing, as per the weather forecast. About an hour before sunset the sun finally broke through and I went to a spot that is not on the tourist maps of the area but rather a spot I found scanning the coast from a satellite look with the





Erskine Falls, Victoria (a7R IV, 24-70mm)

Gilbert Water Ranch in Arizona and Bosque del Apache in New Mexico but coastal and seemingly much bigger than the accessible parts of Bosque del Apache. It requires a permit and key to get into, both items that Alan possessed. After driving all around this area shooting from the car, we returned to Melbourne and we headed to Alan and his partner's house for dinner and then on to the airport hotel attached to the Melbourne Airport's terminal, convenient for my morning flight back to the USA.

One thing that this trip illustrates is the power of developing a network of photographers and friends all around the planet. During my last 20 years of photography I have met many like minded photographers and they have helped me immensely in both

sun's setting position overlaid using the LightTrac app on my iPhone. I got one of my favorite photos of the whole trip here (see "The Story Behind the Photo" later in this newsletter). Research with the right tools pays off!

The next morning was supposed to be partly cloudy and quickly turning to rain - once again the forecast was accurate. Like the night before, my research paid off as I got some nice early morning shots of an offshore formation called the Baker's Oven. My time along the Great Ocean Road was coming to an end. After Breakfast at a café that I visited every morning in Port Campbell I started the drive back to Melbourne.

Way back at the beginning of my trip, I posted a shot from my previous visit to Australia on Facebook from the Melbourne Airport Qantas lounge. A birder/bird photographer I had met years ago in Europe responded with an offer to take me to a wetland complex west of Melbourne. He also felt that it might provide me with another opportunity to try to get Musk Duck. I met Alan McBride at a truck stop on my way back to Melbourne and we went from there. I made a boneheaded error by not putting a fresh battery in the camera, so we had to go back and change batteries, but it all worked out and I finally got my Musk Duck shots along with several other species at a huge and very "birdy" water reclamation facility – it reminded me of a cross between the



Musk Duck (a7R IV, 100-400mm + 1.4x)

planning and even traveling with me. Without them, many of the shots that serious amateurs and professionals get outside of their home area would be much more difficult or we might never even learn of certain great locations.

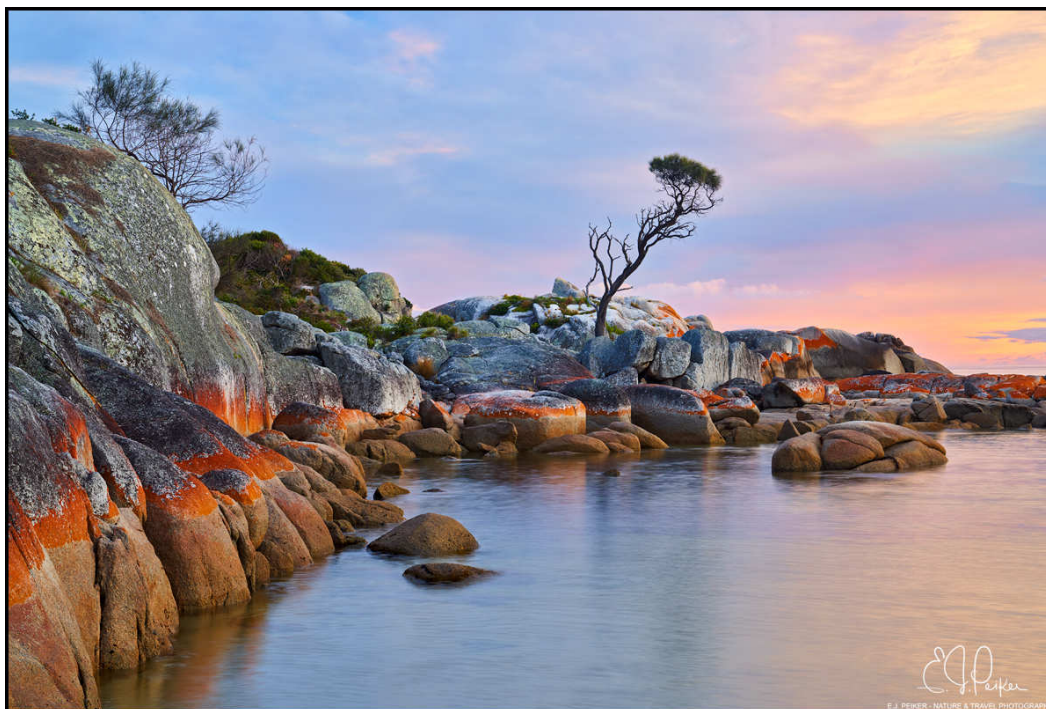
My photo gear for the trip was the new Sony a7R4 sixty-one megapixel camera with Sony a7R3 as backup (which went unused), Voigtlander 12mm lens, Sony 16-35mm GM, Sony 24-70mm GM, Sony 100-400mm GM, mounted on a RRS TVC-24L tripod with spikes, and Arca Swiss p0 hybrid tripod head. The gear performed flawlessly but I did have to tighten the aftermarket RRS lever clamp on top of the p-0 several times and after getting tired of doing this, I replaced it with the harder to use original Arca Swiss lever clamp which did not loosen due to the pins that lock it in place on the head that the RRS clamp does not have. I did have some electronic gremlins during the trip. When I arrived my electric razor did not work despite being fully charged so I went to Hobart's Target store and bought a cheap replacement. Half-way through the trip, my original razor worked again and continues to work just fine. It has nothing to do with the different voltage and current since it was on battery and had last been charged at home. My dual voltage power strip with USB ports blew up about halfway through the trip after working well all around the world for several years. Additionally, Qantas managed to crack my lifetime unconditional warranty Away Travel suitcase. Fortunately I was able to tape it up and it made the journey home without spilling its contents. Upon my return I contacted Away Travel via email and they shipped a brand new replacement suitcase the same day. Despite these little issues, the Australia trip was a great success and I took many photos that I am very happy with. I am forever thankful to John Wiseman, Robert Heazlewood, and Alan McBride for making the journey one that I will never forget.

All of the photos from my time in Tasmania can be found here:

[https://ejphoto.com/tasmania\\_page.htm](https://ejphoto.com/tasmania_page.htm)

All the photos from my time in Victoria can be found here:

[https://ejphoto.com/victoria\\_page.htm](https://ejphoto.com/victoria_page.htm)



Binalong Bay, Tasmania (a7R IV, 24-70mm)

## My Favorite Cameras by Manufacturer

Probably the question I get asked more than any other is “What camera do you recommend?” Of course the answer to this isn’t straight forward as it depends very much on what and how the photographer shoots. It also depends on what camera equipment they already own. In general I wouldn’t recommend a camera from a different manufacturer than the lenses they already own without at least explaining the pitfalls of adapting lenses if this is even possible in their case. With that in mind, I have compiled my favorite cameras currently available below from each major manufacturer in alphabetical order.

Canon – Of all of the manufacturers, Canon is probably the toughest one to pick a favorite from. Canon cameras either have ancient sensors that do not deliver the type of image quality that I expect for the price in today’s world, or are drastically under-featured by today’s standards. As much as I love the lenses that Canon has introduced for their full-frame Mirrorless options, the camera bodies are poorly sensed, poorly featured and just aren’t up to the standards of the lenses they are producing or up to the standards of the competition’s camera bodies. It’s really sad to have such an incredible line of lenses in both their SLR offerings and mirrorless offerings without a camera that I would want to attach them to. As such I have no favorite camera and would not spend money on any current offering. If Canon were the only manufacturer on Earth, I guess I would get an EOS R with their awesome lenses for this system in hopes of the rumored high megapixel pro-featured camera in the near future.

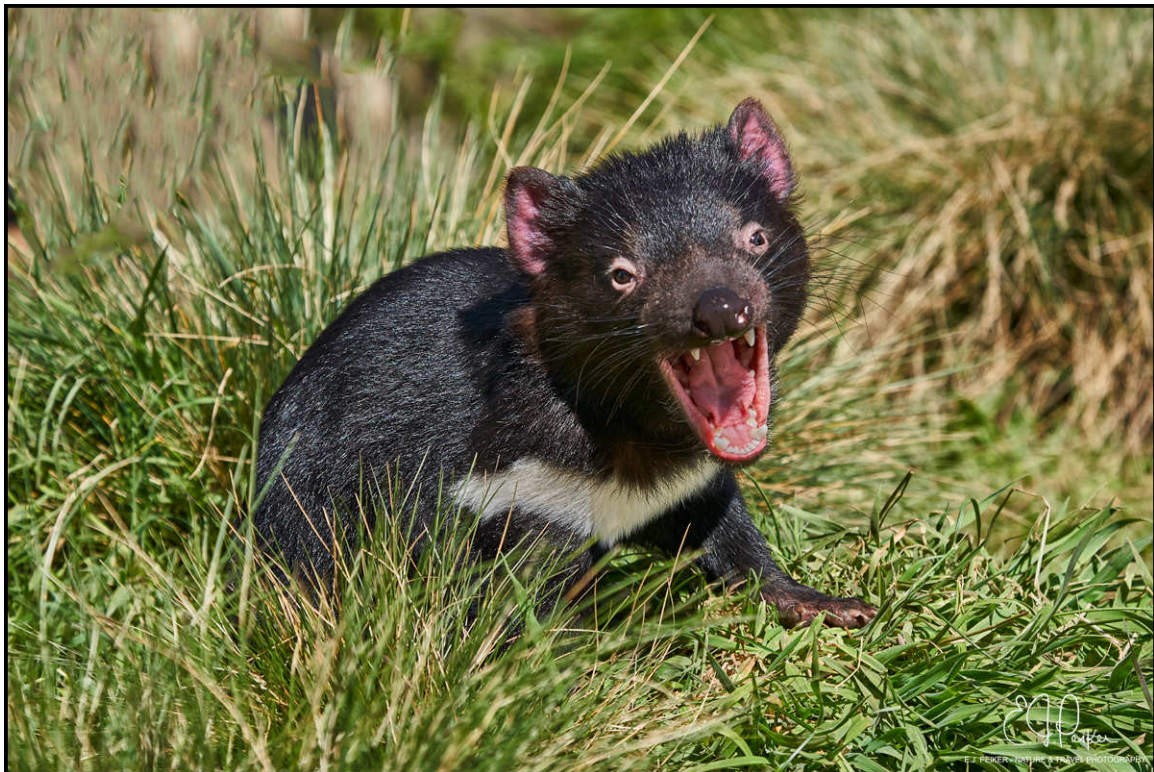
Fujifilm – Easily the best camera and the only one I would buy in Fuji’s APS-C lineup is the X-T3. With the exception of IBIS, it basically has almost every feature that I would ever want in a very portable and compact body. It has the outstanding Sony 26 megapixel sensor, a very good autofocus system, a well implemented focus stacking capability, and excellent ergonomics. The X-T3 does however use Fuji’s X-trans sensor color array which I am not a fan of. My favorite camera in the Fujifilm lineup is their medium format GFX-50S which offers essentially the same user experience as the X-T3 but with a drastically larger and higher resolution sensor and a Bayer color array. It also uses a 4x3 aspect ratio which I find more aesthetically pleasing than the defacto standard 3x2 aspect ratio. The contrast detect autofocus on the GFX-50S is not up to today’s phase detect AF standards but then a medium format camera is not usually used for shooting action by the nature photographer. The GFX-100S offers a modern autofocus system but the body leaves a lot to be desired (see the next article in this newsletter for more detail).

Leica – The new Leica SL2 and S3 are beautiful cameras. While the full frame format SL2 is a bit larger and heavier than the Mirrorless competition it offers a 47 megapixel full frame sensor in a full featured camera of impeccable build quality. The S3 is Leica’s newest medium format offering but is not yet available for purchase. It is the only 3x2 aspect ratio medium format camera on the market and I prefer the 3x4 ratio and it offers 64 megapixels. The SL2 is grossly overpriced, as usual, with the standard \$2000 red Leica button-badge premium and it offers only relatively slow contrast autofocus making it a poor choice for anything that is moving. For still photography it is an excellent tool but it isn’t enough to justify the \$2000 Leica premium as image quality from cameras like the Nikon Z7, Fujifilm GFX-50R and 50S, Panasonic S1R and Sony a7R IV are easily equal or even better. But yes, I would still want one!

Nikon – I want to love the Z7 but I don't. While it is ergonomically excellent for a small Mirrorless body, it leaves off too many of the features of the D850 while being priced above it and its degraded long lens adapted AF tracking capability makes it not as versatile as I'd like. As such, the D850 is still my favorite Nikon camera and it is still the best full frame DSLR on the market by a wide margin. It incorporates almost everything that I want in a camera from excellent image quality to excellent autofocus, a large array of native lenses, automated focus stacking, and virtually every feature that I would ever want.

Panasonic – the Panasonic S1R is an exceptional camera except for its poor autofocus system making it a non-starter for action photography. Ergonomically it is the best Mirrorless camera on the market and it offers a very good high resolution sensor and almost every feature one can think of. Its lens system is not yet complete and the lenses tend to be on the large and heavy side but they are very good.

Sony – The Sony a7R4 is the best overall mirrorless camera currently on the market so it is easy to choose. Its exceptional 61 megapixel sensor, great AF system and nearly full featured arsenal of tools, make it the camera of choice in the Mirrorless world. Even in APS-C mode it still delivers 26 megapixels with a high frame rate and 100% phase detect viewfinder coverage. The Mirrorless lens system for the Sony a7/a9 line is the most complete of any manufacturer. If only it had a better menu system and focus stacking...



Tasmanian Devil (a7R IV, 100-400mm)

## The Cameras I Wish They'd Build

Now that we've covered the cameras I like best from each manufacturer and why, let's talk about the cameras I wish they'd make!

As we end another year with a number of significant new cameras coming to market, I find myself disappointed by many of the new offerings. There are fundamental technologies that exist today that the manufacturers are leaving out or have ignored in their new offerings. I had a lot of time to think and write on two 15 hour plus flights to and from Melbourne Australia a few weeks ago and put together the following thoughts by manufacturer on what I would like to see introduced. Of course, the wish list is from my perspective as a nature and travel photographer and may or may not apply to other genres of photography...



Shy Albatross (a7R IV, 24-70mm)

### Canon

- The obvious one is a professional level EOS R - let's call it an EOS R1. This is a camera that actually pairs well with some of the absolutely awesome lenses Canon has introduced for this system, unlike the two EOS R bodies that have been delivered so far. It brings together some of the technologies that are piecemeal through the Canon line-up such as focus stacking which is available in the low-end EOS-RP but not in the enthusiast oriented EOS-R. This camera would have to come with a modern sensor, not the old out of date sensors that Canon seems to recycle over and over - something that has at least 50 megapixels and meets 2020 standards for noise and dynamic range with an AF system that is as good as or better than Sony's AF system in mirrorless cameras. It would also have a frame rate of at least 8 frames

per second with accurate real time eye tracking and dual CFexpress card slots. Canon is the last manufacturer to not embrace IBIS so this is a must as well.

- If Canon were to build another DSLR, an EOS 5D Mk V with all of the features in the proposed EOS R1 above and incorporating pretty much every technology Canon has in their arsenal could be a great final DSLR.

### Fujifilm

- On the APS-C front, Fuji already makes the best camera on the market today in the X-T3 but it could be improved in an X-T4 by combining some of the features of the mostly forgotten X-H1 with the class leading X-T3. This would put in-body image stabilization (IBIS) into this body. Better histograms that accurately represent what's in the RAW file are needed (see histogram article below) and an improved eye autofocus system would be welcome. If this could be done without appreciably increasing the size of the body, the best APS-C body would become almost unstoppable. Finally, I would wish for it to have a standard Bayer array sensor rather than the gimmicky X-trans sensor array.
- The 101 megapixel medium format GFX-100 is a disappointment to me. While it is capable of some of the best image quality on the planet, the extremely large and heavy form-factor coupled with the third user interface in as many GFX cameras and generally cheap and flimsy buttons and dials, leaves this camera as one of two great disappointments in camera bodies of 2019 (the other is the Sony a6600). A GFX-100S that uses the exceptional GFX-50S style body would be the best medium format camera on the market in my opinion. I realize that would mean giving up IBIS but since I am a 100% tripod shooter when I am using medium format and the lenses that need it for this system already have IS, I would gladly give up IBIS for a camera like this. As with the X system, better histograms and a flat picture profile are a must. Dual CFexpress card slots should replace the SD slots.



Wombat (a7R IV, 100-400mm)

## Leica

- Leica recently introduced the full frame SL2 and medium format S3. By many measures they are both among the very best mirrorless cameras on the market with excellent ergonomics and build quality. Both cameras need to incorporate phase detect autofocus over the majority of the frame and quickly iterating them both to incorporate this would make them much more attractive.

## Nikon

- An upscale true professional version of the Z7 using Sony's 61 megapixel sensor, call it a Z9 would bring Nikon's mirrorless system to the forefront. This camera would include all of the things present in the D850 that are currently missing from the Z7 plus much improved eye tracking including animal eye tracking and a frame rate of at least 8 frames per second while doing that. Dual CFexpress card slots are a must.
- A professional grade "Z500" cropped body - basically the Z9 from above with the Sony 26 megapixel APS-C sensor and over 10 frames per second while animal eye tracking is engaged and much better continuous autofocus with adapted Nikon super telephoto lenses.
- If Nikon were to build another DSLR, I can think of two that would fit the bill of a nature photographer. A D550 that incorporates all of the goodness of the D850 and D500 but with the Sony 26 megapixel APS-C imaging sensor would be an immediate purchase for me to couple with my 500mm f/5.6 PF lens. A successor to the D850, call it a D900, the final and ultimate DSLR that uses the Sony 61 megapixel sensor would be a very popular camera.



The 12 Apostles, Victoria (a7r IV, 24-70mm)

## Panasonic

- The Panasonic S1R is a pretty great camera with one glaring exception. Its AF system is from 2014 and is not ideal for anything but still subjects. The body is perhaps the best mirrorless body from any manufacturer to date. If Panasonic were to put a sensor with phase detect autofocus into this camera, it would become a much, much better camera.

## Sony

- The a7R4 is the best Mirrorless camera currently on the market but needs to include focus stacking and a complete and total rethink of the atrocious menu system. Lossless compression RAW files need to be added as do other crop factors and smaller small RAW formats. Finally all menu functions must be accessible while the camera is clearing the buffer. Fortunately for Sony, these are all things that could be fixed in firmware if they were to invest in the software development of this camera. Virtually all of the other complaints of previous cameras in this system have been addressed in the a7R4
- A real APS-C camera, instead of the tiny difficult to use and ergonomically atrocious a6xxx series, would be a great wildlife camera and capable landscape camera. Basically, put Sony's own 26 megapixel APS-C sensor into either an a7R4 or a9II body which would lop a thousand dollars off of the price of an a7R4 and be a great performer if you need reach with a very high frame rate and the best mirrorless AF system on the market.



Koala (a7R IV, 100-400mm)

## The Best and Worst Histograms

Fortunately I am in a position to use cameras from most of the camera manufacturers and in that capacity I have had a chance to evaluate the accuracy of the histograms available to photographers on the various systems. All of the histograms from the major manufacturers are not a replica of what is in the RAW file but rather a representation of the processed JPEG file with all of the internal camera settings such as picture styles, film simulations, contrast settings, etc. applied on the displayed histogram. This can fool photographers into making exposure decisions that leave image quality, and especially dynamic range, on the table. For example, if you shoot with a Canon camera and select the Landscape picture style, which makes the JPEGs look vivid and saturated, and adjust your exposures based on the histogram while shooting in



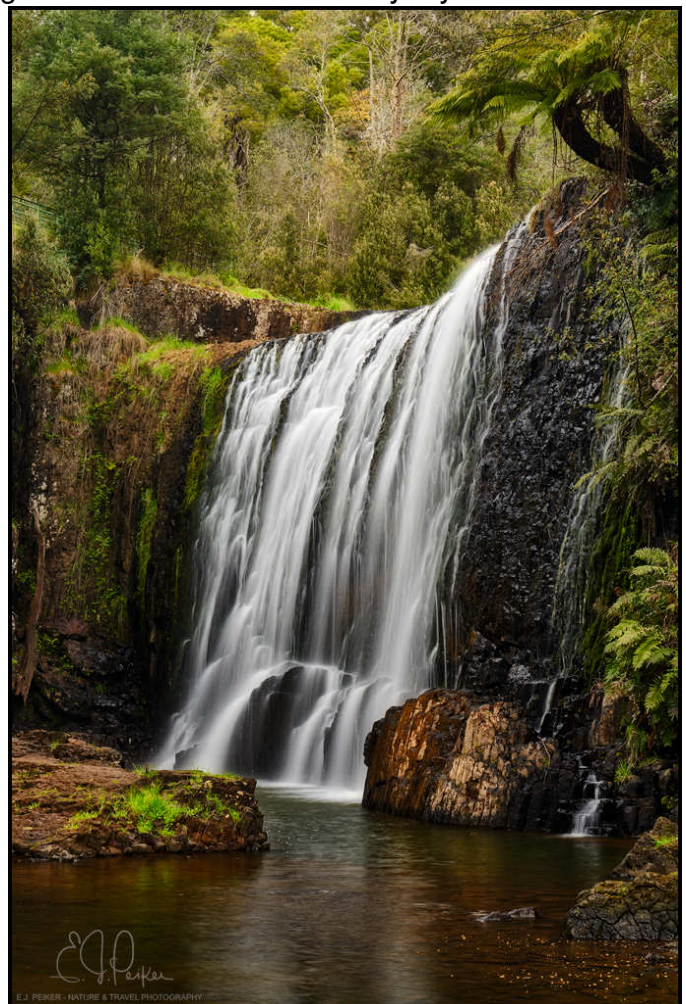
RAW you will see that your exposures are significantly underexposed when you bring them into your RAW file processor such as Adobe Camera Raw (ACR), Adobe Lightroom (LR), Capture One Pro (C1P), or any of the others. This is because a tone curve has been applied by the camera to the JPEGs and that is what the camera's histogram is based on. This happens even if you shoot RAW only and don't even record JPEG files in the camera. Canon shooters that want a reasonable simulation of what is being recorded in the RAW file need to set their picture style to Neutral and then adjust the style by turning contrast all the way down. Of course this makes the image on the LCD look flat but it will give you a more accurate representation of what's in the RAW file and minimize the underexposure that you are likely to dial in based on the histogram or blinkies. Similarly, a Nikon shooter that sets their Picture Control to Vivid will leave nearly a full stop of dynamic range on the table if basing exposures on the histogram and blinkies. The same can be said for using the various Fuji Film Styles.

Below, I have summarized most of the major manufacturer's histograms ranked from best to worst and how to set your picture style to get a more accurate histogram if you are a RAW shooter.

Nikon - Nikon has by far the most accurate histograms for RAW files but only if you select Flat (FL) under Set Picture Control in the Shooting Menu. Nikon also provides the capability of seeing a full frame histogram overlaid on the image if you assign the histogram to the Multi-selector center button in Playback mode. Unfortunately the RGB histogram cannot be enlarged and I always recommend using this and looking at each color channel independently.

Canon - Canon does not have a full frame histogram option nor does it have an option to accurately represent the data present in the RAW file. As described above, you can fool the camera into displaying something that more accurately resembles the data in the RAW file by selecting Neutral as the picture style and then customizing this by reducing the Contrast control all the way (-3 on most Canon cameras).

Olympus - Olympus histograms tend to be about 1 stop off regardless of how the camera is set-up. In other words, once you start getting blinkies in the electronic viewfinder, you can add 2/3 of a stop to properly expose the RAW file by shifting the histogram as far to



Guide Falls, Tasmania (a7R IV, 24-70mm)

the right without clipping any data. This is especially important on a small and limited dynamic range sensor like the micro 4/3 sensors used by Olympus.

Sony - Sony histograms are highly dependent on the Creative Style in use. They are tiny and generally pretty useless. Having shot with Sony cameras more than any other over the last five years I have come up with a method to ensure accurate RAW file exposures. Set the Creative style to Neutral and manually set the contrast level to the minimum value. Turn on zebras and select the 100+ option. When shooting, when you first start to see the zebra patterns in the viewfinder or on the rear LCD, add 1/3 stop more of light. Sony only offers an RGB histogram post exposure and a very tiny useless composite histogram before exposure. In general, Sony histograms are poor due to their small size and inaccuracy.

Fujifilm - Fujifilm has by far the worst histogram accuracy even though they offer beautiful and large histogram displays even in RGB histogram mode - by far the best of any manufacturer before and after exposure. The poor accuracy is due to Fuji forcing the photographer to apply one of its film simulations even when shooting RAW only. These are then recorded in the embedded JPEG in the RAW file and used to calculate the histogram and blinkies. None of these film simulations remotely resemble what the sensor is actually capturing. The closest one can come, and it isn't very accurate, is to select the Pro Neg Standard film simulation and set Preview EXP/WB IN MANUAL MODE to PREVIEW EXP/WB. Use the RGB histogram in viewfinder prior to the shot to set exposure. Note that you can still be off quite a bit in your RAW files with this but over time you will learn how to compensate. For example in blue hour light you can let the blue channel blow a little according to the histogram and the RAW file will be OK. Similarly in golden hour light you can let the red channel blow slightly in the RGB histogram and the RAW file will not be overexposed. Like Sony, Fuji histograms aren't nearly as useful as they could be but in the case of Fuji, they do look pretty.

Leica and Panasonic – I have not shot with either camera brands enough to form a real opinion on the histograms other than to say that Panasonic's S1R pre-exposure histogram is awful, tiny and no RGB histogram is available prior to the shot but the post exposure histogram is large beautiful and detailed similar to Fujifilm's histogram.

In an ideal world we would combine the display of the Fuji histograms with the accuracy of Nikon's histograms when selecting the Flat Picture Control. An even better solution would be to finally have real RAW histograms.



Rocky Cape National Park, Tasmania (a7R IV, 100-400mm)

## Diffraction - The Case for Focus Stacking

In the field, whether out shooting with a friend or teaching a private one on one workshop, I am often asked why I prefer to focus stack using a moderate aperture like f/8 rather than just shooting at a high depth of field aperture like f/16 or f/22 to generate a larger depth of field. The answer is actually quite simple - we spend thousands of dollars on super high megapixel cameras capable of recording an astonishing amount of fine detail so why would I want to effectively reduce that resolution by shooting with a lens set to a reduced resolution aperture...

Diffraction is a property of light that causes it to slightly bend around corners or spread out when being projected through small holes or edges. This spreads out fine detail across more pixels than it would if the light was not bent. When pixel sizes were very large, back in the 4 to 12 megapixel days, the light didn't spread out enough to significantly spill into adjacent pixels and cameras didn't record the inherent diffraction due to small apertures as much as they do in today's world of 42 to 150 megapixel cameras. Unfortunately we still often have the need for large depth of field and in many instances the only options are to either stop the lens down to very small apertures or to shoot multiple frames focused from near to far at more moderate apertures that do not record this diffraction of light in an appreciable way. Of course lenses that can be tilted can record greater depths of field for a given aperture in many circumstances but these are all manual focus only available in just a few fixed focal lengths.

Below is a 100% crop of the exact same photograph shot at f/22 on the left and at f/8 on the right on a 61 megapixel Sony a7R IV. Neither has been sharpened at any step in the rendering process. The full photo is also shown with a box that illustrates the crop. Even on this compressed PDF file rendering, one can see that there is significantly less detail in the f/22 shot than the f/8 shot. While this difference would not be visible when viewing the photograph in full frame mode on a computer screen, small print, or mobile device, in a large print the difference in detail can be significant.





Over the last few years, most of my photographs that require a depth of field that is greater than what  $f/11$  is able to produce utilize focus stacking. This utilizes several frames focused at different points from near to far to create a final photograph that has everything in focus. Many cameras automate the image capture portion of this process (actually every manufacturer has cameras capable of automating this except Sony). To me, the Fujifilm and Nikon (z7 and D850) implementation of this feature are the easiest to use although neither give you the option to set both the near and far focus points. On most camera systems you simply set the near point, a step size (which is poorly defined by the manufacturers) and then push the shutter button. The camera will then take shots from the near point that the photographer defines until the lens' autofocus motor reaches infinity. If you do not need focus out to infinity, such as in a macro shot, you will either get extra frames that can be deleted or you will manually need to abort the focus stacking procedure before it completes. Phase One does offer a near and far point and only shoots frames within that window but the high volume camera manufacturers have not yet adopted this.

Once the photos from a stack have been loaded onto your computer there are a number of options of assembling the stack into a single image. The most popular methods are to use Photoshop itself, or to use much more intelligent, faster and much better dedicated focus stacking software. The two leaders in the industry are Helicon Focus and Zerene Stacker. I exclusively use Helicon Focus. After the stacking is complete, I use the tools within Helicon to brush out or brush in frames where the software had trouble. This is usually in the clouds. Since clouds can move while the images that make up the stack are taken and the software may use clouds from various frames. It is a very simple procedure to simply select the infinity

focus shot and brush in the sky from that frame and masking off clouds that are artifacts of other frames in the stacking sequence. The end result is a shot with front to back sharpness while maintaining the sharpness capability of the camera by shooting at non-diffraction apertures.



Pacific Black Duck (a7R IV, 100-400mm)

A great way of determining what aperture will start to negatively affect your photographs is in the tool found on the Cambridge Colour website:

<https://www.cambridgeincolour.com/tutorials/diffraction-photography.htm>

Scroll down to the calculator and then click on “show advanced” in the upper right hand corner of the calculator. Make sure you check the “Set circle of confusion based on pixels” box and select your camera type based on sensor size and input the megapixel resolution of your camera. When you hit the calculate button you will see the Diffraction Limited line indicate either YES or NO. YES means that your camera is recording a reduced resolution due to lens diffraction; NO means that you are recording the maximum resolution that the camera and lens are capable of. In general you can push about a stop past where the calculator begins to indicate YES without visibly adverse effects. If you are using a RAW converter like Capture One that is capable of performing deconvolution sharpening, sometimes referred to as Diffraction Correction, you can usually push about two stops past the point where the calculator turns to YES without any visual degradation. Note that this is lens independent; it is a physical property of light so you only need to find your diffraction limit once and it applies to all lenses that you own.

Certainly there are times when  $f/22$  and even  $f/32$  are necessary to record what you want, for example moving water blurring when you don't have a neutral density filter available, but in

general, you will maximize sharpness by shooting at an aperture that is not diffraction limited on your camera and often this will require focus stacking if front to back sharpness is needed.

### A Look at Sony's 200-600mm f/5.6-6.3G Lens

Manufacturers always seem to drastically underestimate the demand for high quality super telephoto lenses offered at a reasonable price. Nikon is probably the worst at this given the debacle of the 500mm f/5.6PF lens. This lens, about a year after it started shipping, is just now getting to a place where supply is coming into balance with demand (lest we forget that it took Nikon over a year for D850 supply to meet demand). While Sony hasn't been nearly as bad at this as Nikon and Canon generally doesn't have a problem with this at all, Sony really missed the demand calculation on its 200-600mm f/5.6-6.3G lens which resulted in about a 5



Sony a7R IV with 200-600mm lens, LensCoat, and Wimberley Foot mounted on a UniqBall gimbal style ballhead. (I am not using the LensCoat cover over the zoom and focus rings)

month duration after initial shipments where the lens was essentially unobtainium. Supply has now caught up to demand and I finally received one just before completion of this newsletter. After putting an Arca-swiss style dove-tailed Wimberley lens foot and a digital camo lens cover from my friends at LensCoat on it to protect it from dings and scratches and make the white colored lens a bit less of a bright object pointing at wildlife, I took it out for some bird photography. Since I have only had the lens for a short time, this is just a quick look and some initial thoughts based on early testing and photographing birds at a local park. The Northern Shoveler and Canvasback shots in this article were taken with a Sony a7R IV and the Sony 200-600mm lens.

The Sony 200-600mm FE mount lens weighs in at a bit over 4.5 pounds and is a little over a foot in length. This length does not change as you zoom due to its fully internal zoom design. Other lenses in this genre include the Sigma and Tamron 150-600mm lenses of similar aperture and the Nikon 200-500mm f/5.6. While being approximately the same size as the new Sony lens at minimum focal length, these all get substantially longer as you zoom them to their maximum focal length which is the regime where these lenses seem to spend the most time. This improves handling substantially on the Sony compared to the competition since there is no center of balance shift while zooming. It also means that if the lens is mounted on a gimbal head or ballhead, zooming does not result in the rig wanting to tilt forward or backward. Furthermore, Sony has designed this lens with a very short zoom throw. It only takes 75 degrees, or less than a quarter turn, to zoom from 200mm to 600mm or back and it can be zoomed with your fingertips. The competition requires a lot of turning to go from maximum to minimum

zoom making it impossible to do in a single motion and resulting in too much time wasted while zooming and the probability of missed shots. Zooming from 200-600mm on the Sony can be achieved in a fraction of a second. Overall handling and ease of use with the Sony 200-600mm lens is way beyond the competition.



When first taking this camera out of the box, it is hard to believe that this lens is “only” an upper-middle tier G lens and not an ultra-premium badged “GM” lens. Certainly it’s build quality and cosmetics are equivalent to the GM lenses. What differentiates this lens and knocks it down to a G lens is not optical quality or build quality; it is the fact that it uses a single linear focus motor while GM telephoto lenses use dual motors which result in somewhat faster focus acquisition. After having tested the lens for a few days on both birds on water and in flight, I have not noticed this slightly slower focus acquisition using my a7R4 camera to be an issue. In fact, it is probably the easiest combination to photograph birds with that I have ever used when combining the a7R4’s automatic expanded flexible spot tracking that follows the initial focus point anywhere in the frame with the fast focus acquisition of this lens. It is faster for initial acquisition than my D500 with Nikon 500mm PF lens and tracking, due to this AF mode and the lens’s fast and accurate tracking. Certainly the faster AF offered by dual focus motors is desirable but this lens is plenty fast focusing enough for the vast majority of situations, especially given its maximum aperture of f/5.6 to f/6.3 depending on focal length. The only thing I have ever used that is faster, and this includes Nikon and Canon flagship cameras with f/4 super-teles, is the Sony a9 with 600mm f/4 lens.

While the lens is a bit on the slow aperture side, and an f/5.6 maximum aperture at the long end of the zoom range would have been desirable (although at the cost of weight and size), the lens is very sharp wide open so it’s really only 1/3 of a stop that you are giving up. Of course an f/4 lens is 1 1/3 stops faster but at the cost of much greater size and weight. Overall sharpness on a 5 point scale (5=Excellent, 4=Good, 3=Average, 2=Below Average, 1=Poor), at maximum aperture the lens gets a 4 throughout the entire zoom range. Surprisingly, if anything, the lens is a bit better on the longer end than it is way back at 200mm but not significantly so. When stopping down to f/8, the lens reaches a rating of

5 from 300mm to 550mm and retains a 4 at 200 and 600mm. By f/11, the lens is a 5 through the whole zoom range. On a full frame camera, the corners soften a bit wide open at all focal lengths and sharpen up nicely by f/8. On an APS-C camera or shooting the a7/a9 bodies in Super 35 mode (Sony's name for APS-C), there is essentially no fall-off in the corners. It must be said that lenses like this are typically shooting either wildlife or sports so a slight drop-off in the corners is rarely noticeable. With the Sony 1.4x teleconverter attached, image quality rates at a 3 wide open and a 4 once you stop down 2/3 of a stop. If you zoom out just a bit to 700mm, the combination is very sharp even wide open. These results are actually quite good for a zoom of this type and much better than all of the competitive lenses, none of which I would recommend for use with a teleconverter under any circumstance. I did not test this lens with a 2x converter.

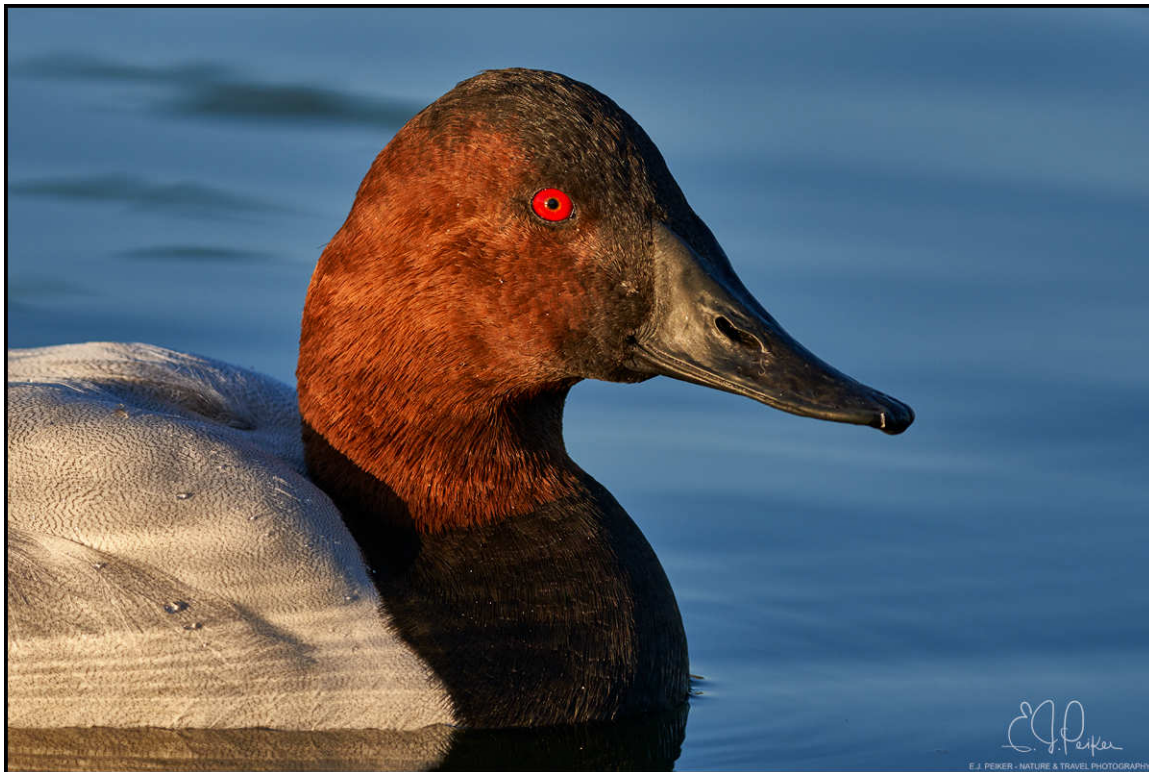


Image stabilization, or Optical Steady Shot in Sony language, has four positions – Off, 1 for had held shooting of stationary subjects, 2 for photographing subjects that may need side to side panning, and 3 for subjects that move randomly. The OSS is tripod sensing and turns itself way down when on a stable tripod. The OSS operates in conjunction with the in body stabilization on cameras that have it increasing the number of axis of stabilization from 3 on non IBIS cameras to 5 on cameras equipped with IBIS. OSS is controlled solely with switches on the side of the lens. I found that when on a tripod, the OSS is so minimal that it does not deal with rig vibration due to wind or human induced shake very well – nowhere near as well as similar lenses from other manufacturers. Even hand-held, it does not seem quite as effective as Nikon's VR or Sigma's OS on similar lenses. There is also an AF/MF switch and a focus range limiter switch on the lens barrel. Finally there are 3 buttons on the lens barrel that can be programmed for different functions. I chose to program the buttons to initiate autofocus which is convenient when hand holding the camera/lens combo.

Overall, Sony has really hit a home run with this lens. It has a super useful focal length range for wildlife photography with exceptional build quality, best in class optics and best in class handling/ergonomics for a very reasonable \$2000 price.



## The Story Behind The Photo



On my last evening along the Great Ocean Road in Victoria, Australia, I took this quarter's "Story Behind the Photo" image. After a stormy and very rainy 24 hour period, the forecast called for partial clearing around sunset. I had a little downtime in the afternoon after returning from a morning shoot of several waterfalls in the woods so I did a little research on my phone using an app called LightTrac. This app uses Google Earth satellite imagery and projects the sun's path over it. You can move the time to see exactly where the sun will be at any given time on any given day. I scanned the coast along the Great Ocean Road to look for some interesting coastal features that I had not already photographed at sunset on my previous days; specifically, ones that would put the setting sun in a great location relative to the beautiful coastal features of this area. After scanning the coast with the sunset angle overlaid, I noticed a deep gorge in the shore that would have the sun setting in the opening that runs straight out to the ocean. I also noted that it only sets in this gorge for about two weeks in the spring and fall, the rest of the time the sunset falls outside of the opening. I noted the exact latitude and longitude coordinates and found a dirt road that got me fairly close to this place via Google Maps but it would require a little offroading on an unimproved Jeep track but not too far and hoped that my rental Hyundai SUV would have no problem getting there. The unmarked dirt road was only about 10 minutes from where I was staying but it was not on any of the tourist maps of the Great Ocean Road. My vehicle had no problem at all getting there despite some big puddles and I was almost alone upon my arrival. The only other people there were a few local surfers where packing up their boards as it was getting late in the day. I found myself in this very beautiful spot by myself as the sun set and got this photo, one of my favorites from the trip. I did have to be very careful in getting it as the cliffs along the Great Ocean road are very soft and are eroding at a fast pace. This was compounded by the fact that the ground was very wet as it had been raining hard for 24 hours which softened up the ground even more. It would be very easy to dislodge a chunk of the edge and go tumbling 200 feet down to my death. I made very sure where I placed my tripod and body was a stable section of cliff as I would have to get pretty close to the edge to get the shot that I wanted.

The next morning as I was checking out of the hotel I was staying at in Port Campbell, the hotel manager, who I talked to about my photographic goals at the beginning of the trip, asked me if I got the beautiful sunset last night after all of the rain. I told her that I got one of my favorite photos at the spot that I went to (and won't name here). She seemed shocked that I went to this place as this is not a place they are trying to promote despite its beauty and it isn't even depicted on Great Ocean Road tourist maps. It is well known among locals but they are purposely not marketing it, both due to it being a smaller and more private place they want to keep to themselves and due to the significant amount of investment it would require in infrastructure to make it a safe place for the masses. Doing research once again paid off!

## Social Media Reminder

In the Spring 2019 newsletter I laid out my Social Media presence and strategy. Since then my Instagram footprint has increased substantially through slow organic growth. It is relatively easy to get thousands of followers if you pay Instagram to promote your photos but like my following of over 5300 people on Facebook, I have decided to let it grow organically without paying to promote followership, Just a small reminder to please subscribe to my Instagram page if you would like to see some of my best landscape photography: <https://www.instagram.com/ejpeiker/> and to my Facebook page to see a mixture of wildlife and landscape photography: <https://www.facebook.com/EJPeikerNaturePhotographer>

## Continuous Garage Sale

I have decided to move my bi-annual garage sale of quality used photographic products to a continuous sale. All items that are currently available are now listed on my website. If there is something that you think I might have that isn't listed. Don't hesitate to drop me an email. I have added three notable items to the large list of sale items – two infrared cameras and the excellent Irix 11mm rectilinear lens for Nikon. Here's the direct link to all of the gear I am currently selling – it is kept up to date:

[https://ejphoto.com/gear\\_for\\_sale\\_page.htm](https://ejphoto.com/gear_for_sale_page.htm)

## The Best Lenses for Your Nikon DSLR, Canon DSLR, and Sony (FE) Cameras

The table of best lenses for your camera is a living document that gets updated every quarter. Changes from previous tables can be seen in bold. Once the ecosystem for the Canon RF and Nikon Z mount matures, I may include or switch over to those mounts. For now, all of the lenses below work well with the proper adapter to Canon and Nikon full frame mirrorless cameras.

Lens Category	Canon EF Mount	Nikon F Mount	Sony (F)E Mount
Full-frame Fisheye	Canon 8-15mm f/4L Sigma 15mm f/2.8	Nikon 8-15mm f/3.5E Sigma 15mm f/2.8	Sony 28mm f/2 + 16mm Fisheye Conversion Lens
Hyper Wide Prime	Sigma 14mm f/1.8 Art Irix 11mm f/4	Sigma 14mm f/1.8 Art Irix 11mm f/4	Sigma 14mm f/1.8 Art Voigtländer 12mm f/5.6
Ultra Wide Prime	Zeiss Milvus 15mm f/2.8 Canon TS-E 17mm f/4	Zeiss Milvus 15mm f/2.8 Nikon 19mm f/4 PC	Zeiss Batis 18mm f/2.8 Voigtländer 15mm f/4.5
Extra Wide Prime	Zeiss Milvus 21mm f/2.8 Sigma 20mm f/1.4 Art	Zeiss Milvus 21mm f/2.8 Sigma 20mm f/1.4 Art	Zeiss Loxia 21mm f/2.8 Tokina Firin 20mm f/2 AF
Standard Wide Prime	Zeiss Otus 28mm f/1.4 Zeiss Milvus 25mm f/1.4	Zeiss Otus 28mm f/1.4 Zeiss Milvus 25mm f/1.4	Sony 24mm f/1.4 GM Sigma 24mm f/1.4 Art

	Sigma 24mm f/1.4 Art	Sigma 24mm f/1.4 Art	
Moderate Wide Prime	Sigma 35mm f/1.4 Canon 35mm f/1.4L II	Sigma 35mm f/1.4 Zeiss Milvus 35mm f/2	Sigma 35mm f/1.2 Art Sony-Zeiss 35mm f/1.4
Standard Prime	Zeiss 55mm f/1.4 Otus Sigma 50mm f/1.4 DG Art	Zeiss 55mm f/1.4 Otus Sigma 50mm f/1.4 DG Art	Sony-Zeiss 55mm f/1.8 Zeiss Loxia 2/50
Portrait Prime (short telephoto)	Zeiss 85mm f/1.4 Otus Canon 85mm f/1.2L II Sigma 105mm f/1.4 Art	Zeiss 85mm f/1.4 Otus Sigma 105mm f/1.4 Art Nikon 105mm f/1.4E	Sigma 105mm f/1.4 Art Sony 85mm f/1.4 GM Zeiss Batis 1.8/85
Medium Telephoto Prime	Canon 135mm f/2L Sigma 135mm f/1.8 Art	Sigma 135mm f/1.8 Art	Sigma 135mm f/1.8 Art Sony 135mm f/1.8 GM Zeiss Batis 135mm f/2.8
200mm Prime	Canon 200mm f/2L Canon 200mm f/2.8L II	Nikon 200mm f/2G Nikon Micro Nikkor 200mm f/4ED	N/A
300mm Prime	Canon 300mm f/2.8L IS II	Nikon 300mm f/2.8G VR Nikon 300mm f/4 PF	N/A
400mm Prime	Canon 400mm f/2.8L IS II Canon 400mm f/4 DO II	Nikon 400mm f/2.8E VR	Sony 400mm f/2.8 GM
500mm Prime	Canon 500mm f/4L IS II Sigma 500mm f/4 DG OS HSM	Nikon 500mm f/4E VR Sigma 500mm f/4 DG OS HSM Nikon 500mm f/5.6 PF	N/A
600mm Prime	Canon 600mm f/4L IS III	Nikon 600mm f/4E VR	<b>Sony 600mm f/4 GM</b>
800mm Prime	Canon 800mm f/5.6L IS Sigma 800mm f/5.6APO DG	Nikon 800mm f/5.6E VR Sigma 800mm f/5.6APO DG	N/A
Wide Angle Zoom	Sigma 14-24 f/2.8 Art Canon 11-24mm f/4L Canon 16-35mm f/2.8L III	Sigma 14-24mm f/2.8 Art Nikon 14-24mm f/2.8G Sigma 12-24mm f/4 Art	Sony 16-35mm f/2.8 GM <b>Sigma 14-24 f/2.8 Art</b> Tamron 17-28 f/2.8 Di
Standard Zoom	Canon 24-70mm f/2.8L II Tamron 24-70mm f/2.8 G2 Di VC	Nikon 24-70mm f/2.8E ED VR Tamron 24-70mm f/2.8 G2 Di VC	Sony 24-70 f/2.8 GM Sony 24-105 f/4G Tamron 25-75mm f/2.8
Telephoto Zoom	Canon 70-200mm f/2.8L IS II Tamron 70-200mm f/2.8 G2	Nikon 70-200mm f/2.8E FL VR Tamron 70-200mm f/2.8 G2	Sony 70-200 f/2.8 GM Sony 70-200 f/4G
Super Telephoto Zoom	Canon 200-400mm f/4L 1.4x Canon 100-400 f/4.5-5.6 II	Nikon 180-400 f/4E 1.4x Sigma 150-600 f/4.5-6.3 Sport	Sony 100-400 f/4.5-5.6 GM Sony 200-600 f/5.6-6.3 G
Macro	Sigma 150mm f/2.8 Macro OS Irix 150mm f/2.8 Macro	Sigma 150mm f/2.8 Macro OS Irix 150mm f/2.8 Macro	Sony 90mm f/2.8 Macro Tokina Firin 100mm f/2.8 Voigtlander 110mm f/2.5 Macro

## Workshops

All of my group workshops are run through NatureScapes Certified Workshops. Please check out all of the great offerings from NSN here: <https://www.naturescapes.net/workshops/>

Private instruction in camera operation, landscape and wildlife photography is also available as well as image processing training. Photo workstation consulting services are available. To learn more click here: [http://www.ejphoto.com/duckshop\\_private.htm](http://www.ejphoto.com/duckshop_private.htm)

## Facebook and Instagram Pages

I routinely post new photos, articles, etc on my Professional Facebook Page and my Instagram Business Page as well as links to my latest articles. If interested, please click below and then click on the Like button.

<http://www.facebook.com/pages/EJ-Peiker-Nature-Photographer/>

<https://www.instagram.com/ejpeiker/>

## Newsletter Info

This is the 19th year of my quarterly Newsletter. I try to cover the wide array of digital imaging and products from mirrorless to medium format and everything in between. Throughout the years, the information contained herein has always been free and will continue to be free despite the many hours it takes to put it together and significant equipment and travel expenses. Most of the products that I have tested and reviewed, I have purchased myself. A small minority have been made available to me for review and evaluation by loyal readers and a few by the manufacturers themselves. While the newsletter is free either via eMail subscription or via accessing it on my website at

<http://www.ejphoto.com/newsletter.htm>, if you find the information useful to you and you do wish to donate for my continuing efforts, you may do so via PayPal and sending the funds to [ejpeiker@cox.net](mailto:ejpeiker@cox.net).

## Disclaimers

E.J. Peiker conducts consulting services and product design services for a number of photographic product companies. Those that know me know that I would not endorse a product, even for compensation, if I did not feel it were a superior product.

E.J. Peiker is a co-founder of [www.Naturescapes.net](http://www.Naturescapes.net) and leads photographic workshops under the **NatureScapes** Certified Workshops banner.

E.J. Peiker is a member of **Nikon** Professional Services and receives some services at a substantial discount or free of charge from Nikon USA. [www.nikonpro.com](http://www.nikonpro.com)

E.J. Peiker is a **Sony** Digital Imaging Pro and receives some services at a reduced cost or free of charge from Sony USA. <https://alphauniverse.com/prosupport/>

E.J. Peiker promotes **LensCoat** products and receives some of their products at no cost. [www.lenscoat.com](http://www.lenscoat.com)

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Loch Ard Gorge, Victoria, Australia (a7R4, 12mm)

*E.J. Peiker*

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