



The Newsletter of E.J. Peiker - Nature Photographer

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Welcome to the quarterly newsletter from E.J. Peiker, Nature Photographer and www.EJPhoto.com. In this quarterly publication, I share with fellow photographers my photographic experiences, photo equipment reviews, photo and processing tips, and industry news. I also inform subscribers about upcoming workshops and products that I offer. Please feel free to forward this to other photographers and interested parties but please do so only by forwarding this newsletter in its entirety. All content is copyrighted by E.J. Peiker and may not be reproduced. If you would like to be added to the mailing list, unsubscribe, or access back issues, please visit: www.ejphoto.com/newsletter.htm



Cuernos del Paine, Chile (Nikon D810, 20mm)



Monte Fitz Roy and Cerro Torre Massif, Argentina

Adventures in Patagonia

In 2007 I went on a big name organized photography tour of southern Argentina's and southern Chile's Patagonia region in hopes of photographing some of the world's most scenic and spectacular mountains. Long time readers of this newsletter may remember that this trip did not work out well for me and I chronicled the experience in my newsletter written during that trip. A combination of historically poor weather for the region and less than optimal tour leadership left me without the photos, or even seeing much of the landscape that I so wanted to see and spent a large sum of money to see. About a year ago, a talented photographer friend (<http://marklaverman.com>) and I started tossing around the idea of the two of us going back to Patagonia on our own without the "handcuffs" of a very rigid timeline and itinerary organized tour. Over a period of a few weeks we got our ducks in a row with flight arrangements, hotels and rental car for a 16 day journey slated for February 2015.

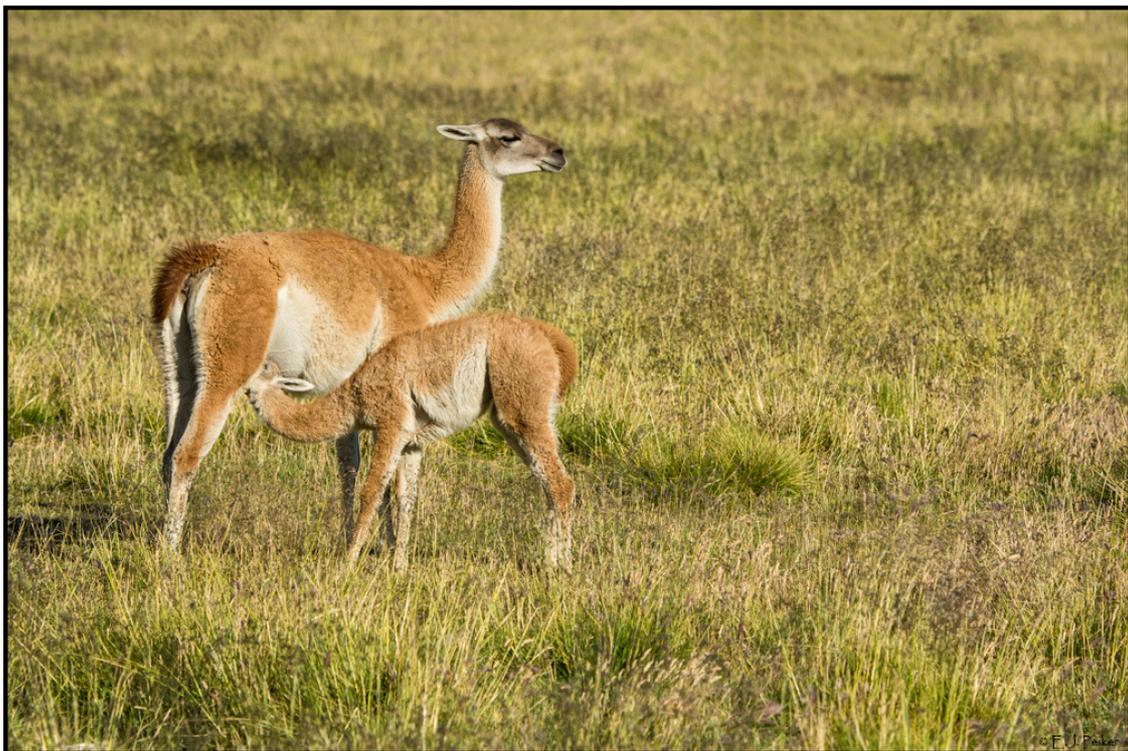
After almost a year of waiting and checking the weather forecast multiple times per day for the last couple of weeks leading up to our departure, we began our trip in Phoenix on a sunny Saturday afternoon. We had booked a flight to Dallas with a connection to a 10 hour Boeing 777 flight to Santiago followed by a 3.5 hour flight to Punta Arenas, Chile with a stop in Pont Mott. Even though we were both booked on the same airline at the same time leaving Phoenix, we both panicked a bit when neither one could find the other. It turns out with the merger between American Airlines and US Airways they haven't quite gotten their schedules worked out and my travel partner, Mark, was on an American flight and I was on a US Airways flight leaving within a few minutes of each other to the same destination - DFW. Some texting back and forth after boarding got us squared away. There was a bit of excitement on the Dallas to Santiago flight when a fight broke out between a passenger that put a recline blocker on the seat in front of him preventing the passenger in the seat from reclining for the long overnight flight. The flight attendants were able to keep it from escalating to punches. After that, the remaining flights to Punta Arenas went smoothly. We arrived in Punta Arenas approximately 21 hours after leaving Phoenix. We were both worried a bit about the weather in Patagonia as the forecast was looking worse almost every day but landed at our destination under sunny skies.

We had reserved a small Nissan SUV in Punta Arenas based on its specified range as there is no gas in Torres del Paine, our ultimate destination in Chile; and when you need to fill up you have to drive more than an hour to Puerto Natales. Unfortunately, by the time we got there, the only remaining SUV was a large full-sized Kia Mohave with only about 360 miles of range instead of the 500 mile range vehicle we had reserved. This meant we would have to make the drive to Puerto Natales more than once during our time in Chile to refuel and we would have to manage our fuel use well. Since we didn't have a choice on vehicle, off we went on our adventure. Our first night was spent in Puerto Natales - we arrived there about 26 hours after leaving Phoenix or 28 hours since leaving our respective homes. The next morning, we photographed

some of the birds along the shoreline of Puerto Natales before putting as much gas as humanly possible in the car. While doing that I noticed that the right rear tire was a bit lower on air than the others so we put the proper amount of air in it and drove toward the spectacular Parque Nacional Torres del Paine (Torres del Paine National Park).

Upon entry into the park, the very first thing we saw was a Guanaco watchman on a ridge with the mountains called the Torres behind him. I had been in the park for a few minutes and already I had a great view of these mountains - better than any of the views during my first visit. From there we toured the eastern edge of the park stopping for a number of photos before making our way to the Las Torres resort deep in the park at the base of the mountains.

Over the next week we thoroughly explored the park both by vehicle and by foot. Our first morning we got wonderful views and pictures of the Torres with the powerful Cascade Paine in the foreground - by far the best views I had ever seen of these incredible mountains. On our third night we had the most spectacular clouds I have ever seen with a massive standing wave lenticular parked in front of the Cuernos del Paine, another group of mountains within the park (see cover photo of this Newsletter). By midweek, during a rainy morning, we made our way back to Puerto Natales for a refueling and lunch. We discovered a very interesting alternative route to Puerto Natales that is much more scenic than the normal route to the park during the refueling excursion.



Guanaco Nursing Chulengo (D7100, 80-400mm)

The following morning was a completely cloudless and windless morning. This is something that almost never happens in Patagonia due to the moist Pacific winds constantly assaulting the south-western coast of Chile. We decided to get up early and hike up to the base of the Torres at a location known as Mirador Las Torres. This is a 7 mile strenuous uphill hike with the last mile a scramble up large boulders. I had been using the D810 and a combination of Nikon and Zeiss lenses up to this point but for this tiring climb, I chose to just take my Sony a6000 24 megapixel APS-C camera with Zeiss 16-70mm (24-105mm equivalent) and

a tripod with a lightweight head. My big mistake was not eating before starting as I just plain ran out of gas about 3/4 of the way up. After stopping for a few minutes and eating some nuts and drinking water, I was re-energized and made the strenuous last mile without problems. I had told Mark to go ahead and he arrived at the lake at the base of the Torres about 10 minutes before me. It was worth the extra effort for me when I went off trail a bit up a ridge of rocks and came upon a high overlook of the lake and mountains that were not visible from the trail. We were fortunate to get some calm periods so that we could photograph the Torres in reflection. Overall this was a very rewarding day. Another memorable sight occurred one evening at twilight as we were driving back to our hotel. We rounded a corner at the top of a hill and were stopped by two Guanaco herds in a major showdown. There were at least 100-200 Guanacos approximately evenly split staring each other down using the road as line of demarcation. Occasionally a scuffle would break out. It was too dark to photograph but incredible to witness.

Our experience at Lago Grey and Cascade Grande were quite different from our experience at Mirador Las Torres. Lago Grey pelted us with freezing rain traveling at 60 MPH and we got essentially no useful photos there. The winds were so strong at Cascade Grande that Mark and I had to huddle in a ball against a rock to keep from being blown away and into the waterfall. We both were wondering for a time how we were going to extricate ourselves from the situation. I have been in 100MPH winds a few times in my life and this was dramatically stronger than that. We eventually got out of there during a momentary lull to sub 100MPH winds.

While in Torres del Paine we photographed every morning and every evening and came away with many great images. We even photographed Chilean Flamingos and a number of other native bird species including Black-necked Swan, Coscoroba Swan, Chiloe Wigeon, Crested Duck, Black-chested Buzzard Eagle, Crested Caracara, and Southern Lapwing.



Chilean Flamingos (D7100, 80-400mm)

A day before we were to check out of the Las Torres Hotel and proceed to Argentina's Patagonia region, I was looking at our hotel reservations and realized that the dates were off by a day. In other words we were without a hotel room for one night in Argentina. Fortunately the Las Torres was able to accommodate us for an extra night. We had also been keeping an eye on the tire that was a bit low on the first day and it seemed to be very low again after a week of driving on it. Since we needed gas anyway before taking the 5 to 6 hour drive to El Chalten, Argentina we made our way, slowly, back to Puerto Natales. We stopped in

the Puerto Natales office of our rental car company and were told that they wouldn't do anything about the tire and it was up to us to get it addressed but they did point us towards a tire repair shop. The folks at the tire repair shop were efficient and fast and charged us a mere \$3 to fix our leak caused by a small nail. On our way back to Torres del Paine we stopped at a shop at the border crossing and the very nice storekeeper lady informed us that you now have to do all of your Argentina entry paperwork and pay the \$160 reciprocity tax online instead of at the border crossing station. She said she would help us get this done but her Internet was not working so I set up my iPhone as a mobile hot-spot, connected her computer to it and we got this done - modern technology is amazing!



Torres del Paine (D810, 80-400mm)

The scary part of our adventure began the next day. This was the day we were to go to Argentina. The relationship between Chile and Argentina is not good due to several armed conflicts between them over the last 5 centuries. As a result, there is a demilitarized zone (DMZ) between the two countries so when you make a border crossing between them you actually have to emigrate out of Chile, exit through a guarded gate, then drive 7km across the DMZ and arrive at the Argentina gate where you again have to stop to immigrate into Argentina. We went through the emigration process on the Chile side without problems but we were at the tail end of a big group from a tour bus. As a result they never asked us about our car nor did anyone ever tell us that our rental car had to clear customs separately. We got back in our car and they waved us through to cross the DMZ and we drove to the Argentina outpost on the other side. We went through Argentina immigration with no problems but at the customs window they asked us for the paperwork for our car. After several trips out to the car to get various pieces of paper, we were sent back to the Chile side of the DMZ because we didn't have the proper paperwork for our car to go into Argentina. The problem was that they failed to process us back out of Argentina through immigration. So now on paper and in our passports, we were officially immigrated into Argentina but physically back in Chile because our rental car didn't clear customs. Back on the Chile side, a lady explained to us what paperwork we need and then waived us back into Chile... without immigrating us back in! It turns out the rental car company didn't give us the proper documents and we had to drive an hour to Puerto Natales to the rental car outpost there

to get them. But it was Sunday and the office was closed. Next we called the cell phone number for the person that rented us the car in Punta Arenas and he told us that he will process the paperwork and get a customs clearance form but the government office that needs to process the paperwork isn't open on the weekend. So we had to spend the night in Puerto Natales. Fortunately the Hotel Natalino, the same hotel we stayed at on our first night in Chile, was able to accommodate us and also called the hotel in El Chalten that we would not be checking in that day and to be sure that our reservation for the rest of the week wasn't cancelled due to not showing up. Monday morning came and we got the paperwork after an hour wait to get it processed and sent to Puerto Natales via eMail. Next we went back to the Chile side of the border. But... we weren't officially in Chile since we had emigrated out and immigrated into Argentina without ever immigrating back into Chile. So then we had to first officially re-enter Chile and then immediately, emigrate out again and cross the DMZ to get our car into Argentina. The immigration and customs people in Argentina were very confused since they thought we were already in the country because we had cleared immigration the day before. Finally, after several tense minutes, the customs officer just gave up and stamped us and our car in and we finally completed our 25 hour border crossing from Chile to Argentina. It was very weird and a bit scary being in a country without being documented to be there - it was an extremely stressful situation.

Our original itinerary did not include a stop at the Perito Moreno Glacier west of El Calafate but since Mark had not had the opportunity to go there on his first trip to Patagonia, we made the 2 hour (one way) side trip to this spectacular glacier that cuts across Lago Argentino, Argentina's largest lake. We kept our eye on the clock the whole time since, according to our paperwork, we could not check into our hotel after 11:00PM. But we needed fuel to get there and there was a large music festival in El Calafate and after being refused service at one gas station, presumably due to not having Argentina plates (but we weren't fully clear on the reason for the refusal of service) we were redirected to a Petrobras station on the other side of town which had a mile long line to get gas. It took over an hour to make it to the front of the line. Once we had fuel we had to really hustle to make it to El Chalten before the 11:00PM check-in curfew. We got there about 5 minutes before 11:00 just to find out that the paperwork was wrong and that the front office was staffed 7x24 - more needless stress!



Perito Moreno Glacier (D810, 24-70mm)

The main attraction in the El Chalten part of Parque Nacional Los Glaciares (The Glaciers National Park) are the Monte Fitz Roy and Cerro Torre massifs. On my first visit to this part of Argentina in 2007, I never



Cerro Torre (D810, 80-400mm)

once saw either mountain during the 5 days that I was there. In fact it was difficult traveling as the area was experiencing historic rainfalls and the roads were rivers. The entire southern Andes were completely soaked in for two weeks. These are some of the most spectacular mountains in the world, photographically speaking, and my anticipation was high so when we awoke the first morning and drove to an overlook and were subjected to 60MPH winds and no mountains in sight, I had a bad feeling of Deja Vu. Fortunately, as the day went on, the weather got better and by evening we were able to take some great shots of both mountains with clouds lit up by the setting sun behind them. Over the next week we did several mountain hikes to various views of these great peaks but we never got good morning light to light up the east face of the mountains. But finally on our last morning, before having to leave early the next day we got a couple of minutes of pink first light at the top of the mountains. The photographic part of our journey was complete. We got to see and photograph everything that we had hoped to.

The return trip across the border for the nearly 10 hour journey back to Punta Arenas was much less eventful and went smoothly. We stopped in Puerto Natales at the same gas station again enrollee and had some lunch and then got to Punta Arenas a couple of hours later in time to stand in line for an hour just to check into our flight with LAN back to Santiago. Our Punta Arenas to Santiago and Santiago to Dallas to Phoenix

flights were on separate tickets so we were not able to check into our flight back to the USA in Punta Arenas and we had a very tight connection. Fortunately the were able to check our bags through but not us. We knew we were going to be in a bit of trouble when our flight left Punta Arenas an hour late but fortunately we made up quite a bit of time. When we got to Santiago there was no gate for us so we were bused to the terminal and they made a mistake bussing us to customs even though we were on an internal to Chile flight. By the time that mess got cleared up and we figured out how to get from the International part of the airport and the customs hall to the ticket counters (not a route one normally takes since usually you go either straight to a gate or leave the airport after going through customs so there was no signage to help us), time was getting very tight and we still had to check-in for the flight. A very nice American Airlines ticket counter agent gave us privileges to go through security in the area where the crew goes through security which got us to the gate just as boarding was starting. The rest of the journey home was smooth and on time. Immigration and customs at DFW continues to be the easiest and smoothest process of any airport of entry in the USA - I have written about that before. if you have a choice, select Dallas as you port of entry into the USA.

Overall the trip was exhilarating, many great photos were taken, many experiences were had, many laughs were shared, and there were moments of sheer terror. Overall I am so glad we decided to do this trip on our own rather than with a group as we were not encumbered by any schedules and could decide day to day and even hour to hour based on the weather conditions and the light.



Monte Fitz Roy (a6000, 16-70mm)

Update To The Waterfowl Of The World Project

As many long time readers know, one of my photographic goals is to photograph every species of Waterfowl on Earth. I have loved the colorful, animated, and funny personalities of Ducks ever since I was a small child. Many "in the know" waterfowl experts have claimed that I have the largest collection of waterfowl images and species of any photographer in the world. Whether or not this is true, I don't know, but, as of this writing I have photographed 151 of 166 recognized known non-extinct species on the 2015 IOC Waterfowl Species List (Version 5.1). I continue to make slow progress towards my goal but it gets more and more difficult the closer I get to completing the task. In the 15 years that I have been working on this, I have run into a bit of a moving target as DNA testing has split a number of species that used to be considered a single similar species into multiple species making the task more difficult. For example, when

I started Cackling Goose was considered to be part of Canada Goose. White-fronted Goose covered both Lesser and Greater White-fronted Goose, now they are separate species. There was just one Bean Goose, now there are Taiga and Tundra Bean Geese based on slight genetic differences that occurred during their evolution in sub-arctic Russia versus sub-arctic Europe. Two Scoter species have been added due to geographic split-out. Gray Teal and Speckled Teal have both been split into multiple species. Comb Duck was split into Comb Duck and Knob-billed Duck based on evolving in South America or Africa. There are other break-outs as well. Despite these challenges I am making steady progress. In North America, I only need Cackling Goose which should be relatively easy to get and Masked Duck which is a bit more difficult. In South America, I only need Chubut Steamerduck which is very difficult due to its small population in a single, hard to reach isolated area, Brazilian Merganser which is also very difficult, and Black-headed Duck. My biggest challenges are with species native to the islands of the Indian Ocean. Surprisingly I have most of Africa covered with just one Madagascar species and one South African species remaining. I hope to write a completely new and comprehensive Ducks of the World book in the coming years when I finish. As

always, you can visit my Wild Waterfowl of the World page for a complete listing of all species and links to photos of them - http://www.ejphoto.com/wild_waterfowl_species.htm. I have recently updated this to be fully compliant with the latest taxonomic IOC Version 5.1 2015 World Waterfowl List.



White-backed Duck (D810, 80-400mm)

New APS-C Cameras by Canon and Nikon (and lenses too)

Both Nikon released new high spec APS-C cameras in the last quarter as well as two pro level lenses. The Canon EOS 7D Mark II is squarely positioned in the professional crop camera category while the Nikon D7200 is positioned at the top of the consumer/prosumer category. I have had an opportunity to spend time with both.

Canon EOS 7D Mark II: The EOS 7D Mark II or 7D2 is a 20 megapixel high frame rate (10 FPS) camera with a 1.6x crop factor and Canon's top spec autofocus system with full weather-sealing and a metal body. Key new features of the 7D Mark II include built in GPS, 65 point autofocus, 1080P video at 60FPS, on sensor dual-pixel phase detection autofocus in live view and movie modes, and a buffer depth of 31 frames. Overall it is a major update to the EOS 7D and it is built like a tank with a high level of weather sealing.

Oddly enough, while virtually every camera on the market in the crop sensor world now has built in WiFi, Canon chose not to implement this and their official reasoning is not very believable. Canon states that WiFi reception would be poor with an all metal body. In reality a small plastic window anywhere on the camera or an externally routed antenna would make WiFi easy to incorporate but Canon chose not to do it. They were able to get a GPS receiver and antenna into the all metal body so why not WiFi?

My experience with the EOS 7D2 on several bodies has been very good with world class autofocus performance from its staggering 65 cross-type AF sensors and sensitivity to -3Ev on the center AF point. It

provides exceptional acquisition speed and tracking of moving subjects. Setting up the autofocus, due to its nearly infinite combinations of settings can be a bit daunting and is probably way over engineered; it leaves no customization stone unturned. For most wildlife action shooters, Canon's Case 1 pre-programmed option is a good starting point for setting up the AF system. I did notice that the camera is extremely sensitive to shutter and mirror induced vibration and the entire camera shakes in your hand when tripping the shutter in a fast continuous shooting mode. Images taken with long lenses on distant subjects in single shot/silent shutter mode, which softens the mirror slap considerably, are significantly sharper than shots taken in normal rapid shutter shooting. When not using the camera at a high frame rate, I would recommend the quiet shutter mode for maximum sharpness. As always, on a small pixel camera, a steady support will give you optimal results. The 7D Mark II is way more sensitive to minor subject or camera vibrations than its full frame big brother, the EOS 1Dx, due to having pixels that are nearly one quarter the physical area of 1Dx pixels. However, with excellent technique, a well supported 7D2 can take incredible photographs.



Pied-billed Grebe (EOS 7D Mk II, 500mm)

Disappointments with the 7D2 include the aforementioned lack of WiFi and most of all the lack of a real resolution upgrade from the 7D to the 7D2 (18 megapixels to 20 megapixels). While the difference in pattern noise is significant and much appreciated, the lack of an improvement in real dynamic range is surprising given how long it has been since the 7D came out. Canon cameras on the whole are still approximately 2 stops behind virtually every other manufacturer for dynamic range. Also disappointing is the lack of features that serious video shooters and an increasing number of still photographers demand such as zebras, focus peaking and continuous shot AF in live.

Overall the EOS 7D Mark II is a very significant upgrade to the original EOS 7D and is highly recommended for Canon crop-sensor photographers.

Nikon D7200: Nikon just started shipping the D7200, a 24 megapixel prosumer 1.5x crop (DX) camera. I have only had a few days with the D7200 but it is very similar in operation to the D7100. It addresses the biggest complaint of the D7100 by tripling the size of the buffer from 6 RAW shots to 18 RAW photographs before the camera slows down. Other improvements include built in WiFi and Near Field Communication (NFC) although the Nikon iPhone/Android app is not ready for prime time giving only a minimal amount of control. This will hopefully be addressed with future app updates. The D7200 sports a Sony sourced APS-C sensor instead of the older Toshiba sensor found in the D7100 and like its predecessor it does not have a resolution robbing anti-aliasing filter. This sensor has about a 2/3 stop better dynamic range and significantly less pattern noise - a worthwhile upgrade for those high contrast subjects. Side by side testing shows about a 1/3 to 2/3 stop improvement in noise. I was very hesitant to use ISO 800 on the D7100 but on the D7200, it becomes fairly useful. The autofocus system is a DX version of the same professional AF system built into the D810 but it has been tweaked to now focus at -3EV which is tied for the best on the market currently. Fortunately, for a change, Nikon did not change the support system so the same batteries, brackets, vertical grip and other accessories can be used with the D7200. Battery life has been improved despite using the same battery. Other improvements are removing the unnecessary 999 shot continuous frame limitation in Time Lapse and Intervalometer mode and the very useful time lapse exposure smoothing option has been added which prevents flicker due to exposure changes that are too large as the light level changes. Finally 60FPS 1080P video was added in DX crop mode as was clean HDMI output to an external recorder.



Common Gallinule (D7200, 500mm)

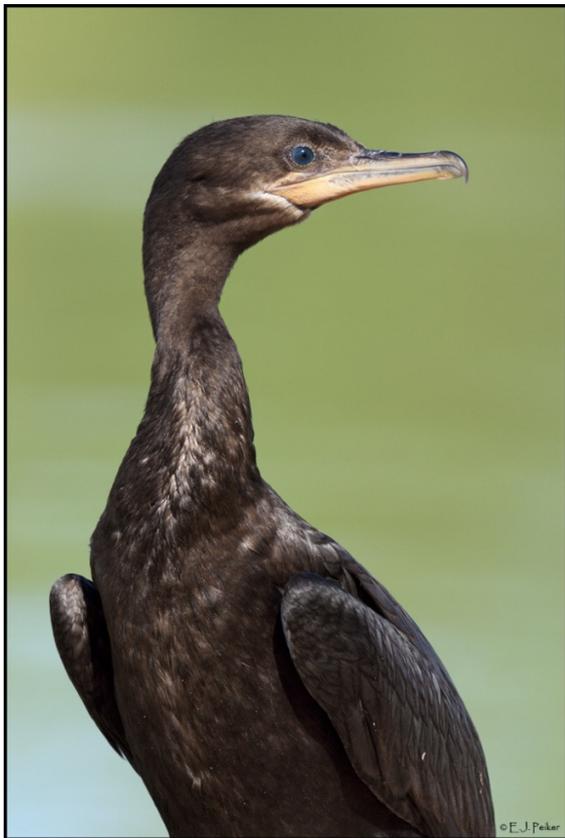
Many were expecting the carbon-fiber build of the D750 with tilting screen. It is disappointing that these were not included. I believe the market for the D7200 would have been significantly larger if these features were included even if it resulted in a camera that was \$100 to \$200 more expensive. As it stands, the D7200 will primarily appeal to those that need the deeper buffer. In this day and age, all cameras should have a tiltable screen. Lower models of Nikon cameras even have a touch screen. It seems absurd that

the D7200 does not. Interface to the external world is still USB 2 which is just plain cheap and lazy of Nikon.

Operationally I found no difference in using the D7200 compared to the D7100 except that the camera keeps on shooting for more than 3 seconds before slowing down the frame rate compared to the 1 second bursts of the D7100. And if you slow the frame rate to 4 frames per second, the camera keeps shooting for 24 frames before slowing down. As with its predecessor the D7200 has what Nikon calls a 1.3x crop mode which is another 1.3 crop mode on top of the 1.5x crop that the camera's sensor employs. The result of this is a 15 megapixel file with a crop factor of 1.95. Essentially the 80-400mm lens becomes a 155-780mm full frame equivalent field of view lens. Using this mode also increases the frame rate to 7 frames per second and increases the buffer to about 25 frames.

Focusing is quick and reliable, much more so than my experience with the D7100. The D7100 focus point overlay in the viewfinder was not very accurate and the actual point of focus was slightly above where the viewfinder indication was. This appears to have been improved but is still slightly present. If you have a high contrast edge just above where the AF point is, the camera tends to use that as the point of critical focus. The focus tracking of a moving subject is improved and less jumpy.

As I started playing with the camera and getting it customized to my liking I found a few other differences that have not been covered in other reviews that I have read or in Nikon's press release for the camera. The first is a handy feature that was first added on the D4s and D810 - the ability to set the camera so that it remembers which AF point you are using in vertical and horizontal shooting mode and it automatically switches between them when you rotate the camera. This capability is enabled initially in the menus and then is sticky to the last time you set the AF point in either rotation. Another feature adopted from higher



Neotropic Cormorant (D7200, 500mm)

level Nikon cameras is Start-Stop Shutter mode. This is a feature similar to Bulb mode but in this mode you push the shutter button or cable release button once to start the exposure and a second time to stop it. Bulb mode forces you to hold down the button or lock it on a remote where this mode does not. There are some new special effects modes inherited from lower cameras in the lineup for JPEG shooters as well. Finally, My Menu makes a return. One of the changes on the D7100 was Nikon hiding the capability to populate your own custom menu with functions and settings you use most often. Instead a most recently used menu was inserted which was much less useful. The D7200 brings back My Menu as the default and makes the camera work the same as the full frame Nikon cameras out of the box.

There is one "bug" in the D7200 that has been retained from the D7100 - one cannot change aperture while in movie mode. You actually have to exit Movie Mode, change the aperture and then re-enter Movie mode.

Overall, the D7200 addresses the major issues of the D7100 and offers a number of new or improved features borrowed from higher and lower spec cameras. I would only recommend buying a D7200 if you find the 6 RAW Exposure buffer of the D7100 limiting or feel that some of the other changes that I have mentioned are important to you. For me, the lower pattern noise, better AF, deeper buffer, and focus

point memory as you rotate the camera makes the upgrade desirable.

Lenses: In addition to the new prosumer/pro cameras from Canon and Nikon, both manufacturers have also introduced new high end lenses. I haven't gotten my hands on either at this writing but I have read and studied all of the independent test data and will give you my initial impressions based on these unbiased tests.

First to the party was the new Nikon 300mm f/4 PF VR lens. Nikon users have been shouting for a stabilized 300mm f/4 for many years now and the company has finally delivered one but with a twist. The new letter combination PF was introduced. This stands for Phase Fresnel. In order to make the lens dramatically smaller and lighter than a traditional 300mm f/4 lens, a new (for Nikon in photographic lenses) type of element has been employed which uses a Fresnel lens sandwich in the optical path. Canon has done this for years in their 400mm DO and 70-300mm DO lenses. Canon's term for Phase Fresnel (PF) is Diffractive Optics (DO). While Canon has improved on this technology over the years, most recently with the 400mm f/4 DO Mk II, this type of lens element has always produced some undesirable flare that can take on a bagel-like appearance when photographing something with out of focus specular points of light. Nikon confirmed up front that this type of flare is also present in the 300mm f/4 PF lens and has even built some correction routines into their RAW converter - Capture NX-D. Independent tests confirm that this flare is there and that in certain situations it can be pretty ugly. Furthermore, the Nikon routines to correct it don't do a very good job. I have gotten a hold of some RAW files shot with the lens and tried Nikon's correction and to say that it is underwhelming would be too kind. It does almost nothing. This type of flare under certain shooting conditions is the downside for this lens. The upside though is that the new lens is measurably sharper than the lens it replaces and doesn't have the contrast issues that some of the early Canon DO lenses had. It is very light and isn't much bigger than the 24-70 f/2.8. Resolution tests show that this lens is indeed a world class performer and it easily beats all other 300mm f/4 lenses currently on the market as well as all zooms that encompass this focal length. Overall, if you don't shoot subjects with specular point source highlights (wet rocks in the background, out of focus lights at night, etc) this lens is a worthy replacement but if you do I would avoid it.



Redhead (D7200, 500mm + 1.4x)

Canon introduced a super wide 11-24mm f/4L zoom lens. This is a very interesting and unique lens. It is the widest non fish-eye lens for full frame cameras available and independent testing shows it to be a phenomenal performer easily besting its nearest competitors, the Nikon 14-24 f/2.8 and Tamron 15-30 f/2.8 super-wide zooms. It is extremely well corrected for distortion and sharp to the corners and another true winner. Canon has racked up an unprecedented string of "best in the world" lenses of late. The only downsides, other than cost (\$3000), is that it is a very large and heavy lens and that it does not take front screw-in filters due to the bulbous front element necessitated by the very wide angle of view. Its competitors also do not have filter threads. For Canon shooters that like the perspective of super wide angles without venturing into non-linear fish-eye lenses, the 11-24mm f/4 looks to be a superb lens to add to your kit.

The Best Lenses For Your Nikon and Canon Cameras

Several readers requested that I add a second place lens since often the best lenses are prohibitively expensive. I have done that where I have enough data. Unfortunately in some cases the second place lens is as expensive or even more expensive but this is not true for all cases. Where there is a very large drop-off from the first place lens to the second place lens, I have added an asterisk (*). Additionally, I have picked up many new subscribers that are shooting with Sony a7 cameras. I have added a column for full frame Sony E-mount.

Lens Category	Canon EF Mount	Nikon F Mount	Sony (F)E Mount
Ultra Wide Prime	Zeiss 15mm f/2.8 ZE Canon TS-E 17mm f/4	Zeiss 15mm f/2.8 ZF.2	N/A
Extra Wide Prime	Zeiss 21mm f/2.8 ZE Canon 20mm f/2.8*	Zeiss 21mm f/2.8 ZF.2 Nikon 20mm f/1.8*	N/A
Standard Wide Prime	Zeiss 25mm f/2 ZE Canon TS-E 24mm f/3.5L II	Zeiss 25mm f/2 ZF.2 Nikon 24mm f/1.4G*	N/A
Moderate Wide Prime	Sigma 35mm f/1.4 Zeiss 35mm f/1.4 Distagon	Sigma 35mm f/1.4 Zeiss 35mm f/1.4 Distagon	Zeiss Loxia 2/35 Sony-Zeiss 35mm F2.8
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	Zeiss 85mm f/1.4 Otus Nikon 85mm f/1.8G	N/A
Medium Telephoto	Zeiss 135mm f/2 Apo Sonnar ZE Canon 135mm f/2L	Zeiss 135mm f/2 Apo Sonnar ZF.2 Sigma 150mm f/2.8 Macro OS	N/A
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	N/A
400mm Prime	Canon 400mm f/2.8L IS II	Nikon 400mm f/2.8G VR	N/A
500mm Prime	Canon 500mm f/4L IS II	Nikon 500mm f/4G VR	N/A
600mm Prime	Canon 600mm f/4L IS II	Nikon 600mm f/4G VR	N/A
800mm Prime	Canon 800mm f/5.6L IS	Nikon 800mm f/5.6E VR	N/A
Wide Angle Zoom	Canon 11-24mm f/4L Canon 16-35mm f/4L IS	Nikon 14-24mm f/2.8G Tamron 15-30mm f/2.8 Di VC	Sony-Zeiss 16-35 f/4
Standard Zoom	Canon 24-70mm f/2.8L II Tamron 24-70mm f/2.8 Di VC	Tamron 24-70mm f/2.8 Di VC Nikon 24-70mm f/2.8G	Sony-Zeiss 24-70 f/4
Telephoto Zoom	Canon 70-200mm f/2.8L IS II Canon 70-200mm f/4L IS	Nikon 70-200mm f/4G VR Nikon 70-200mm f/2.8L	Sony 70-200 f/4 G
Super Telephoto Zoom	Canon 200-400mm f/4L 1.4x Ext Canon 100-400 f/4.5-5.6 II*	Nikon 80-400 f/4.5-5.6G VR Nikon 200-400mm f/4G VR II	
Long Macro	Sigma 150mm f/2.8 Macro OS	Nikon Micro Nikkor 200mm f/4ED	

Private Photography Instruction and Consulting Services

In addition to the duck photo workshops that I launched over 10 years, I also offer private instruction in Wildlife and Landscape photography at the place of your choosing within the USA and Canada. These private workshops are of the one on one variety (or two on one). Clients may schedule time in 4-hour time blocks for either classroom or field sessions. With just two people, a number of shooting locations become possible that aren't possible for larger groups and thereby making it possible to photograph some species or locations that are not attainable with larger groups. More specific instruction, based on the client's specific needs, can be given using this delivery method in either the classroom or in the field. For more information please see the following link: www.ejphoto.com/duckshop_private.htm

I also offer both photo equipment and computer workstation/digital darkroom consulting services. This allows me to combine my 27 years of work in the computer industry with my lifetime of photographic experience and provide services at a technical level that are hard to find elsewhere. Contact me for rates and specifics or visit my rate sheet:

<http://www.ejphoto.com/Quack%20PDF/Rate%20Schedule%202014.pdf>

Photographic Service

My list and rate table of photographic services can be found here:

<http://www.ejphoto.com/Quack%20PDF/Rate%20Schedule%202014.pdf>

Facebook Page

<http://www.facebook.com/pages/EJ-Peiker-Nature-Photographer/150804446733>

Newsletter Info

This is the 13th 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 and significant equipment and travel expense it takes to put this together. Most of the products I have tested and reviewed, I have purchased myself; some have been made available to me for review and evaluation by loyal readers and a few have also been made available to me 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.

Disclaimers

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

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Saskatchewan Junction, Alberta (iPhone 5s)