

Bluenose Focus

The Newsletter of the Photographic Guild of Nova Scotia
January 2017 Volume 52 Issue 1

In this issue:

PSA Report

CAPA News

Desert Bound

Where Does Noise Come From?

Members' Corner

Bluenose Focus

The Newsletter of the Photographic Guild of Nova Scotia
January 2017 Volume 52 Issue 1

In This Issue

Editor's Corner	3
President's Message	4
PSA Report	5
CAPA News	16
Members' Galleries	19
Photographer of the Year Night	23
Noise in Digital Photography	24
Desert Bound	29

Newsletter submissions

We welcome your submissions to Bluenose Focus, and will do our best to make sure that the best submissions make it into the newsletter.

Articles prepared using any current software may be submitted. Should there be a difficulty, the Editor will get in touch.

Submitted images should be JPEG format, sRGB colour space, and high resolution.

Submissions should be e-mailed to:

georgefm41@gmail.com

The Photographic Guild of Nova Scotia

Directors

President:	Dean Hirtle
Vice-President:	Darryl Robertson
Past President:	Laszlo Podor
Recording Secretary:	Pam Mills
Newsletter Editor:	George Mitchell
Treasurer:	Kent Speiran

Standing Committee Chairs

Program:	Fred Greene
Entry:	Wayne Garland
Judging:	Fred Greene
PSA Representative:	Viki Gaul
CAPA Representative:	Joyce Chew

Other Committees

Public Relations:	John Wm. Webb
Honours and Awards:	Esther Thériault
Seminars:	Fred Greene
Nominating:	Dean Hirtle
Constitution and By-Laws:	Joyce Chew
Projection:	Joyce Chew
Host:	Laszlo Podor
Hospitality:	<i>Vacant</i>
Banquets:	Edie Greene
A/V Advisor:	Bill Murphy, Mervyn Kumar-Misir Peter Steeper
Statistician:	Nick Honig
Webmaster:	Darryl Robertson
Judging Equipment:	Hubert Boudreau
Event Photographer:	Hubert Boudreau
Workshops/Field Trips:	Fred Greene
Shubenacadie Wildlife Park Guides:	Jen Fried Vic Fraser, Doug Leahy
Outside Evaluations:	Colin Campbell
Digital Coordinator:	Mervyn Kumar-Misir

Visit www.photoguild.ns.ca for more information



Editor's Corner

By George Mitchell

This will be my last issue of the Bluenose Focus. Looking back, my first issue as editor was in May 2012, so it has been five years. It is time for some new ideas under new leadership.

I would like to thank all of you who have responded so generously to my requests for articles and images. Viki Gaul has been a constant help, contributing cartoons and other small items as well as the PSA reports. She has also created colourful montages, saving me a lot of work. I also thank my wife Pip, a proofreader extraordinaire.

When I learned that Nick Honig and Tuma Young were off to Arizona for four months, I persuaded Nick to give us an illustrated account. He has responded splendidly with the article "Desert Bound".

Another highlight of this issue is a technical piece by Pierre Guynot de Boismenu (Pedro) on noise in digital images.

Again, I encourage you, our members, to submit images, news items, and articles for future issues of the Bluenose Focus.

2016-17 Guild Themes At A Glance

1st Guild Assignment

"Light Painting"

(Must have been photographed after May 1, 2016)

2nd Guild Assignment

"From the Sea"

(Must have been photographed after September 1, 2016)

R. K. Mann Trophy

"Can one desire too much of a good thing" (As You Like It, Act IV, Scene 1)

(Must have been photographed after September 1, 2016)

President's Message

By Dean Hirtle



We are well into the new year and our 2016-17 Program. We have continued with the revised competition format this year which we introduced in 2015-16. Our executive continues to evaluate the format and we welcome any comments or suggestions from members on this or any other matter with regard to our Program.

One of the highlights of our Program for me so far was George Mitchell's November 27th seminar on his Travels in Ecuador- a well prepared, interesting and informative presentation. Thank you, George!

I also would like to thank Joyce Chew for taking on organization of our home evaluation sessions this year, in addition to her numerous other contributions to our club. These sessions provide a great opportunity to improve one's image evaluation skills as well as a great chance to socialize with fellow club members. Thank you to all the evaluation hosts this year as well.

We have some great new field trip opportunities this year. Please check the schedule for details. Field trips can be organized at any time, so if you have an idea and would like to organize a trip,

please contact Fred Greene or other executive members to discuss same.

As always, I encourage you to be an ambassador for our club by spreading the word to potential new members, in particular letting folks know our schedule is on line and everyone is welcome to attend our meetings at the Museum as guests. In my experience, new members often bring new perspectives and photographic interests and styles that add to the interest and vitality of our club.

We will have some vacancies on our Executive at the end of this year. If you are able, I hope you will consider contributing to our club by participating in some capacity. If you are interested in discussing possibilities, please contact Laszlo Podor or myself.

I hope the new year to date has enabled you to pursue your photographic interests and that 2017 is a banner year for you in that regard!

Dean Hirtle

President

Hello PGNS Member and Friends

For this edition of the Bluenose Focus I made collages to show you the images sent away in the 'digital' categories to compete in PSA Interclub competitions across North America and the UK. I have included the first two rounds for your viewing pleasure. I am sure you will agree we sent beautiful, well executed images to each competition.



I also want to mention at this time, the Photographic Society of America's annual conference.

This year it will be held in Pittsburgh in October....

Please see the announcement here in the PSA section of the newsletter.

Or check it out on the website at psa-photo.org and click on Conference in the bar at the top. Please contact me if you would like information on any of the aspects of the conference.

If anyone reading this is interested in helping in any way with the PSA Club Representative duties let me know, I could sometimes use an extra set of hands to collect the prints after the competition and get them ready for mailing to the host club.

I sometimes post things to the PGNS Facebook page so if you are connected to Facebook, please look up the page and follow us. There is also a 'group' FB page if you would like to share an image or two, or just watch to see what others post.

I will have some awards and scores to announce on the evening of the 4th Guild/PSA night, Sunday March 5th.

I look forward to seeing your images on competition nights and am always excited to send away and receive results from the Interclub competitions.

So while the snow is blowing and you are wondering what to do with your time, look through your images and plan to share them with your fellow Guild members.

PGNS PSA Club Rep, Viki Gaul

SAVE THE DATE!
2017 PSA Conference

October 8 - 14, 2017
Pittsburgh Marriott City Center

A poster for the 2017 PSA Conference in Pittsburgh. It features a yellow bridge over a river with a city skyline in the background. The text on the poster reads: "2017 PSA CONFERENCE", "PITTSBURGH", "PENNSYLVANIA", "CITY OF BRIDGES", and "October 8, 2017 - October 14, 2017".

A great way to meet people, have personal encounters with known photographers, and renew longtime acquaintances.

Registration for the Pittsburgh conference will begin April 17, 2017 this year.
Mark your calendars!



PSA Projected Image Division (PID)



Joyce Chew- Threading the Hole



Nanciellen Davis- Yunnan Terraces in Blue



Viki Gaul- GBH Scratching Chin

Round 1
2016-17



Marg Nolen- In Mating Mode

Interclub Competition Selections



Ftred Greene- Great Egret 2829



Darryl Robertson- Milky Way at Peggys



Frangipane-Joyce Chew



Round 2 2016-17
6 images / 6 makers



PSA Interclub Submissions

PID/Open category



Strike a Pose
France Boutilier



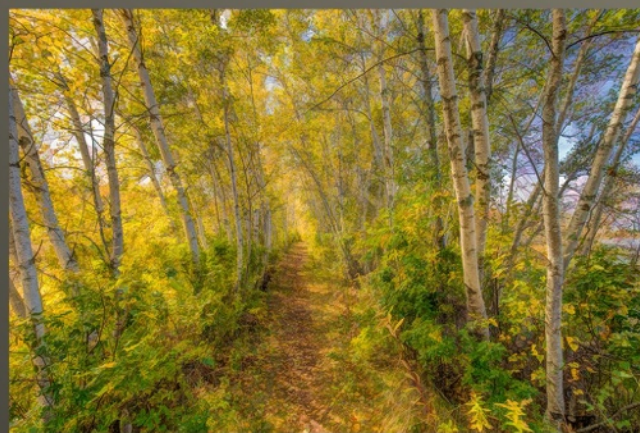
Zabriski Point-Fred Greene



Man and Boat on Yuanyang Terrace
Nanciellen Davis



Beautiful GBH Wings-Viki Gaul



Wallace Bay Path-Darryl Robertson



George Mitchell-Fly on Green Background

HM



Darryl Robertson-Bluejay in Winterberry

PSA Nature Division Interclub Competition Submissions



HM

Viki Gaul- Mama Spoonbill With Babies



Round 1
2016~17



Tony Landry- Pheasant 3



Nanciellen Davis-Gelada Baboon Forages



Fred Greene-Spoonbill Landing

6 images from 6 makers



Egret With interesting Twig-Viki Gaul



Male Gelada Groomed Nanciellen Davis



Palm Frog-George Mitchell



PSA Interclub Sumbissions Round #2 2016-17



Heron in Flight-Antonio Solis



Cicada 7088-Laszlo Podor



Egret in Flight -Fred Greene



Joyce Chew- Hayward Rounds Gate 10



Kent Speiran- The Longest 8 Seconds



Viki Gaul- Ouch

ROUND 1
2016-17



PSA
Photojournalism
Division
Interclub
Competition
Entries



Fred Greene-
MotoCros 4571



Tony Landry- Surfer 7

6 Images
6 Makers



Darryl Robertson- Bike 43



Children With Puppies-George Mitchell

PSA Interclub PJ

Submissions



MotoCross 4249-Fred Greene



Inches to Spare-Joyce Chew



Round 2 2016-17 6 images-6 makers



Fun in the Waves-Viki Gaul



Air Force Precision-Dean Hirtle



The Catch-Mervyn Kumar-Misir



Laszlo Podor- Liatris



France Boutilier- Lean on the Turn

PSA Projected Image Division
 “Creative Category”
 Interclub Competition Entries



Viki Gaul- Beach Walkers



Round 1
 2016-17



Joyce Chew- Man in Motion



Darryl Robertson- Electric Zebra

6 Images
 6 Makers



Mervyn Kumar-Misir- Argyle Street Church



Orbed Into the Abyss-Viki Gaul



Dahlia in the Clouds-Joyce Chew



Slot Canyon Creative-Fred Greene



Night Rider-Darryl Robertson

PSA Interclub Submissions
CREATIVE Round 2 2016-17
6 images by 6 makers



Coconut Tree-Mervyn Kumar-Misir



Daisy-Laszlo Podor



Nanciellen Davis- Yunnan Women to the Fields



Viki Gaul- Horse Grazing in Monument Valley



Dean Hirtle- Toward Lions Head



Round 1
2016-17



Mervyn Kumar- Misir - Las Vegas

PSA Photo Travel Division Interclub Competition Submissions



Marg Nolen- The Mekong Delta

6
images
by
6
makers



George Mitchell- Old Friends



Las Vegas-Mervyn Kumar-Misir



Yuanyang Morning Workers-Nanciellen Davis



Monument Valley 1757-Fred Greene



The Iconic Elizabeth Tower-Kent Speiran



Melancholic Parisian Night-Pierre Gunynot



PSA Interclub
Submissions to
Round 2
"TRAVEL"



Mursai Mother-Marg Nolen

6 images-6 makers



CAPA News

By Joyce Chew



Happy New Year everyone! This year marks the 150th Anniversary of Confederation, so hopefully you will take advantage of all the opportunities like free admission to our National Parks and historic sites as well as events and celebrations throughout the year.

This year, CAPA's national conference will be held in Ottawa from June 28-30, 2017. CCC2017 will be hosted by the Ottawa RA Photo club at Algonquin College. It will be an exciting conference with presentations from speakers like Richard Martin and Jeffery Wu, hands-on sessions, field trips and opportunities to visit special collections like the works of Karsh. You will be well situated at Algonquin to take advantage of the Canada 150th celebrations at our capital, so stay tuned to <http://www.ccc2017.ca> for updates on field trips and speakers. The Early Bird deadline for registration has also been extended to February 28. For those planning to stay at the residence, there are a limited number of rooms still

available for those willing to share their suite with other attendees. You will need to contact accomodations@ccc2017.ca directly with your name, email and sharing preferences (or name of roommate).

In competition news, PGNS tied for 9th out of 24 clubs with a score of 131 points in the Fine Art competition and tied for 9th out of 26 clubs with 128 points in the Fall Nature competition. We competed for the first time in the Minimal Manipulation - Landscape category and we tied for 13th out of 20 clubs with 121.5 points. We earned an Honourable Mention for our 5th place finish in the Print competition.

Thanks for your continued participation in the CAPA competitions and keep on clicking.

Happy Shooting!

Digital Fine Art- Hosted by Crescent Beach Photography Club

Entry			
No.	Image Title-Photographer Name	Score	Awards
1	Lady And The Tramp In A Manger- Joyce S. K. Chew	23	
2	Viki Gaul- The Journey Begins	19.5	
3	Egret 5474 OP- Fred Greene	24	
4	Fine Art- Marg Nolen	20.5	
5	Dancing Petals- Laszlo Podor	22	
6	Seagull Texture- Darryl Robertson	22	
Total Score		131	Tied 9th of 24 clubs

Digital Minimal Manipulation- Landscape- Hosted by Richmond Hill Camera Club

Entry			
No.	Image Title-Photographer Name	Score	Awards
1	Lighthouse At Sunset- France Boutilier	19.5	
2	Garibaldi Mountain Range- Joyce S. K. Chew	21	
3	Bryce 2178- Fred Greene	19.5	
4	Monument With Tree 0002- Viki Gaul	22	
5	Cloud Forest- George Mitchell	21	
6	Golden Sunset- Marg Nolen	18.5	
Total Score		121.5	13th of 20 clubs

Nature Digital- Hosted by RA Photo Club

Entry		Score	Awards
No.	Image Title-Photographer Name		
1	Great Egret Big Stick 1528- Fred Greene	21	
2	Resting Warbler- France Boutilier	20	
3	Snowy Egret- Terry Boswell	20	
4B	Three Of A Kind- Marg Nolen	21	
5	Egret With Large Nesting Stick 8902- Viki Gaul	23	
6	Cicada 7168- Laszlo Podor	24	
Total Score		129	Tied 9 th of 26 clubs

Print – Hosted by Manitoba Camera Club

Entry		Score	Awards
No.	Image Title-Photographer Name		
1M	Zebra Trio Mono- Dean Hirtle	20	
2M	Great Tail With Leg Lifted Mono- Viki Gaul	22	
3C	Egret With Stick 3814- Fred Greene	22	
4C	Egret Family- Marg Nolen	19	
5C	Chickadee On Yellow- Darryl Robertson	19	
6C	Sunrise At The Dingle- Laszlo Podor	20	
Total Score		122	5th out of 10 clubs- HM Award

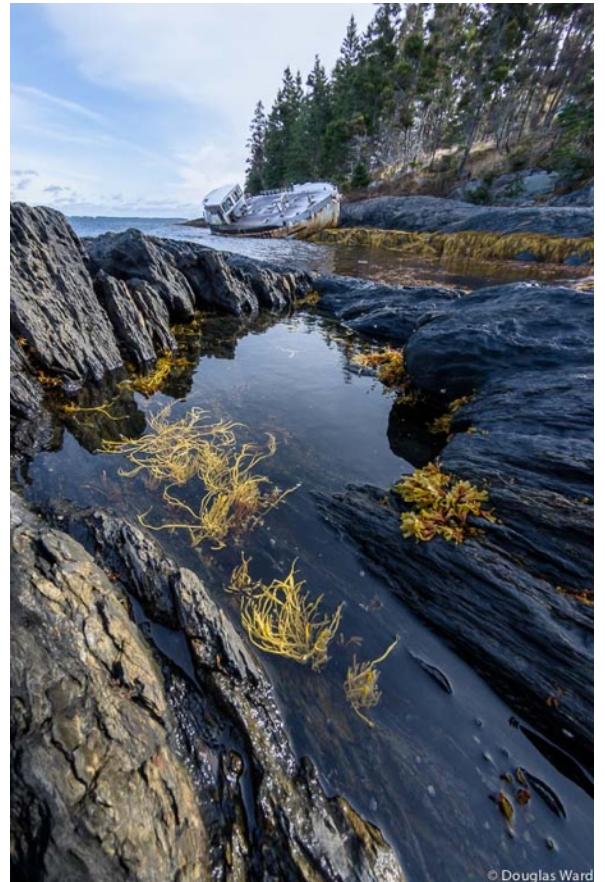
Members' Galleries

Photos by Dean Hirtle



Members' Galleries

Photos by Douglas Ward



Members' Galleries

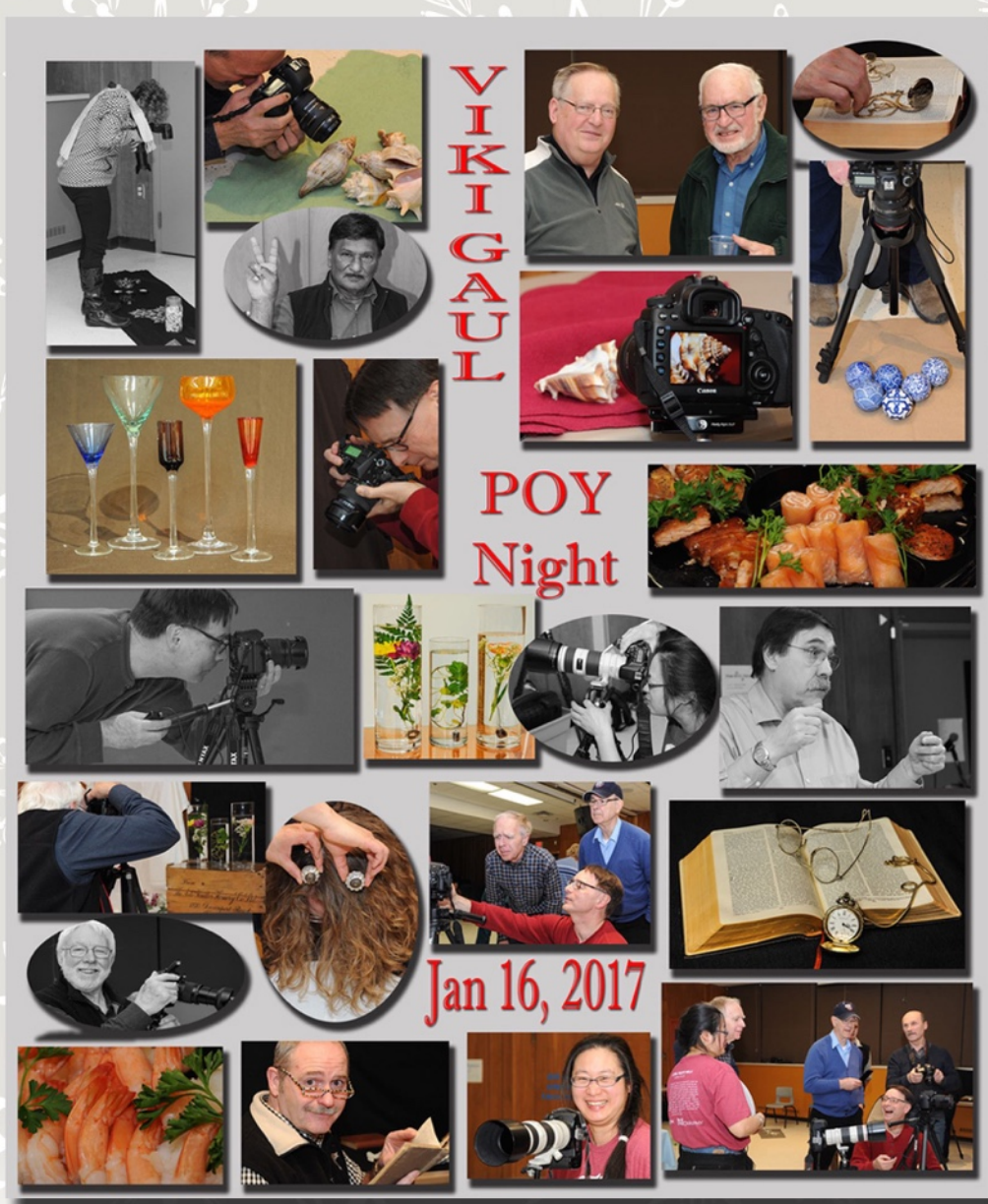
Photos by Mervin Kumar-Misir



Members' Galleries

Photos by George Mitchell





Photographer of the Year Night 2015-16 (POY)

'Hello and Thankyou' to everyone who made it out to the POY night on January 16th.

To those of you who couldn't make it, "We missed you!"

Hope you enjoy the collage of photos from the interactive part of the evening.

I want to thank specifically, the Guild Executive, led by Dean Hirtle, for their efforts to create a wonderful atmosphere for us all to learn and share the things we love most about Photography and image making.

Special thanks to Fred and Edie for providing a lovely lunch and to Maria and Laszlo for helping with the setup. Also to Merv for setting up the projector, and bringing background music (He suggested a Karaoke night but the offer has been declined !

Thankyou Darryl, for the technical assistance, and many thanks as well to Pam, Terry, and Joyce, for the packing and lugging when it was over. Oh and thanks to my husband Gary, for his continued support of my endeavors... All the best to my fellow Guild Members and Friends, Viki

PS_ The POY Gallery will soon be on the website....Darryl will send a notice when that takes place



How to deal with noise part I: Where does noise come from?

by [Pedro](#) on [March 24, 2016](#)

This article is aimed to help understand where does noise come from in digital photography and what we can do about it. I'll talk about some of the concepts that have an impact on noise, the sensor, ISO settings, and dynamic range. In part II of this article I'll explain how do I deal with noise in real world examples.

What is noise?

In electronics noise refers to the electronic signal, or voltage, that's present in a circuit. This signal is random and is a characteristic of every electronic component. The reason this noise is generated is beyond the scope of this article, but if you want to read about it go to this Wikipedia article: [https://en.wikipedia.org/wiki/Noise_\(electronics\)](https://en.wikipedia.org/wiki/Noise_(electronics)).

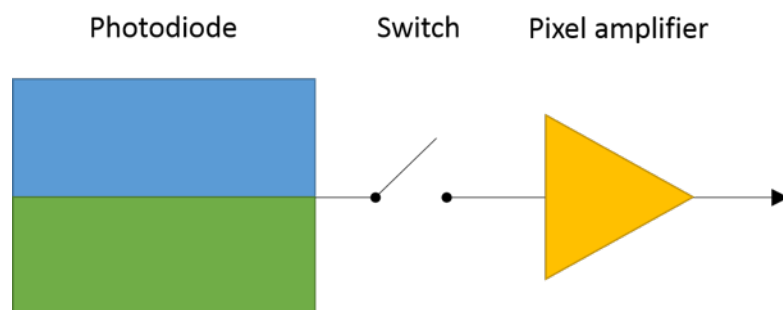
In the analog film era, noise was created by the grain structure of the medium. Those grains were most commonly silver halide particles. The larger these crystals were the noisier the film was. Larger particles are good to capture light hence they were used for low light conditions or fast shutter speeds. Usually films from ISO 400 and above. The interesting part of all of this is that the human brain perceives this noise as "natural".

Understanding CMOS sensor

We'll start by looking at how cameras capture light and convert it into a photography, and how it relates to noise.

Today's cameras use CMOS sensors and only medium format cameras still use CCD sensors.

A CMOS chips contain large arrays of transistors, which are each composed of a photodiode and amplifier. The photodiodes accumulate electrical charge when exposed to light, and that charge is then converted to voltage, then amplified and transmitted as electrical signals.

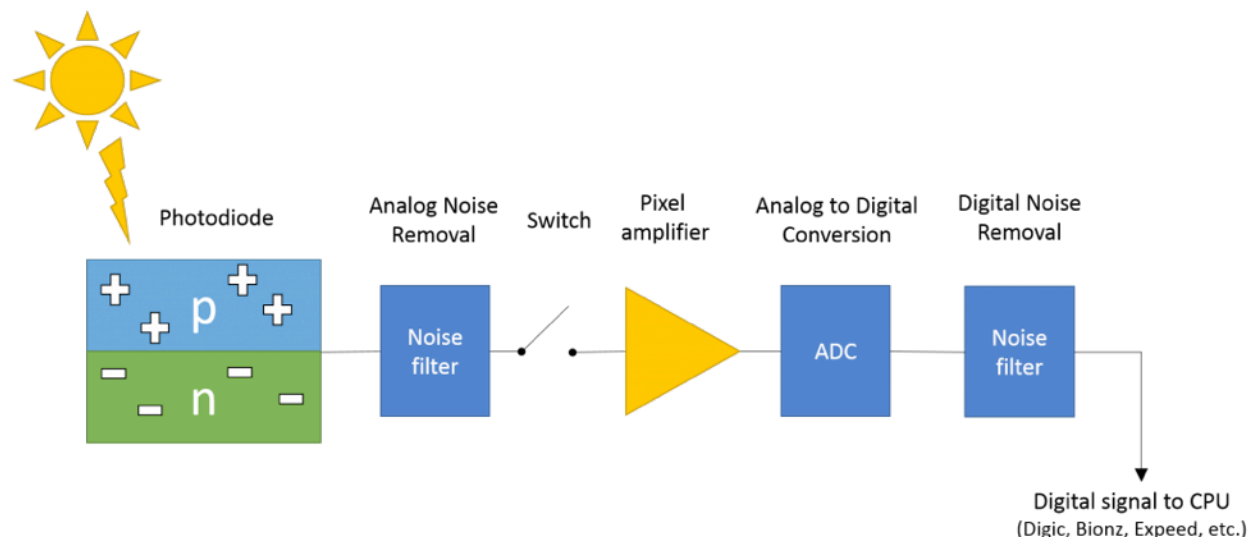


The switch is controlled by the shutter mechanism of the camera. When we press on the shutter the switch is open causing the photodiode to start accumulating

electrical charge. When the shutter is closed the switch close as well and all the electrical charge gets dumped into the circuit.

As with any circuit made of large number of components (10s of millions in today's CMOS sensors) there will be unavoidable fluctuations in the performance. These small differences in performance result in noise in the output image. To overcome this problem, manufacturers have developed several solutions. One of them is to include noise reduction mechanisms after the photodiode and another after the Digital to Analog conversion. For example, Canon developed on-chip technology that record the noise of each pixel before exposure, and automatically subtract such noise from the image when it is created.

Here's a high-level detail diagram of how a CMOS sensor captures light and converts it to a digital signal. In this image the photodiodes are represented in their internal construction, "p" and "n" sides, each one capturing the positive and negative charges respectively. The output of the digital signal is send to the manufacturer's CPU (Digic on Canon, Bionz on Sony and Expeed on Nikon).



To highlight the complexity of these sensors, in a 20M pixel sensor the diagram shown above will be repeated 20 million times.

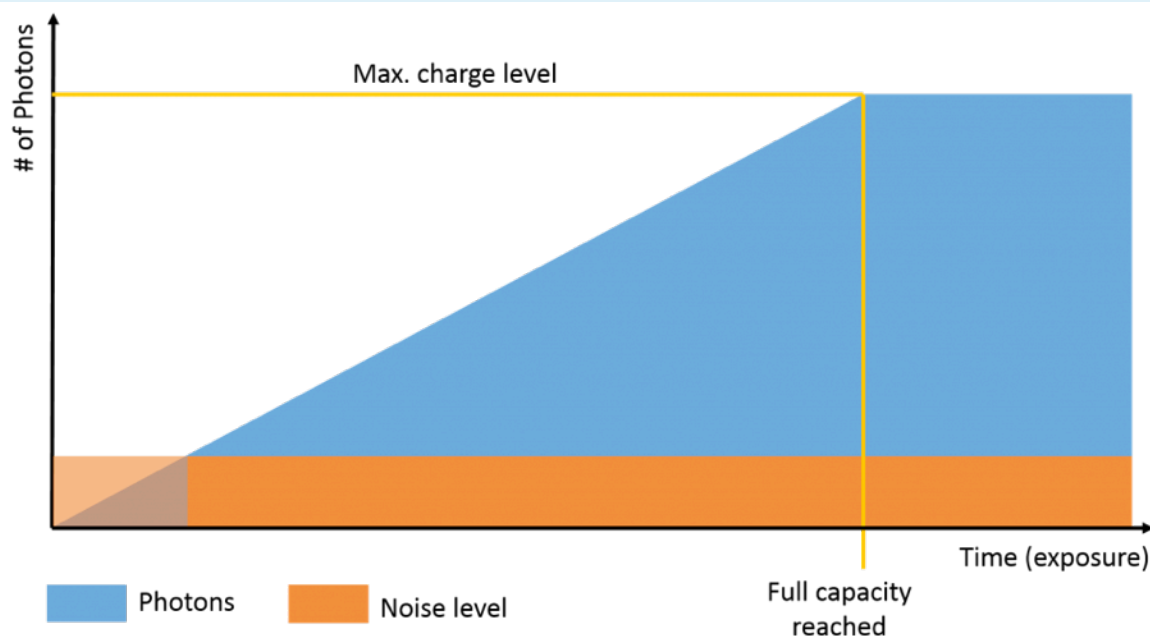
Dynamic range

As explained above, when a photodiode captures light it generates an electrical charge. The more light it receives, the more charge and higher output voltage it produces. When this happens the output voltage will be magnitudes larger than the circuit floor noise level. As a result, the noise becomes negligible. However, if we expose the photodiode long enough eventually we'll reach its maximum capacity to generate electrical charge. After this point the photodiode will no longer be able to capture light. In photography, this is what we call "blowing out the highlights".

On the other hand, those photodiodes capturing the dark part of the photo will capture less light and therefore create less charge and lower voltage. This puts the output voltage closer to the floor noise level. If the available light is low enough the voltage generated will be close to the noise level making it impossible to differentiate image or noise.

So, each photodiode has an operational range where it can capture light and successfully transfer it to form a photo. You go above that range and you lose information and you go low and your information gets mixed with the circuit floor noise. This range between minimum and maximum charge a photodiode can operate is also known as Dynamic Range.

Dynamic Range is the ratio between lightest and darkest signals the sensor is capable of reproduce. It is a characteristic of the sensor defined by the physical size of each photodiode. It's calculated by dividing the number of photons it can hold before being overflowed and the minimum measurable light intensity.



The graph above is a representation of an exposure showing the relation of the capture to noise level and maximum charge of the photodiode. It is important to mention that the accumulation of photons has a linear behavior. For simplicity sake, noise level is represented here as linear but in reality, has small variation over time.

How this relates to noise? If we have a sensor with a high dynamic range it means we can store more electrical charge, for longer time, before overflow, allowing the dark parts to also capture more electrical charge. While a small dynamic range we will reach the overflow point faster reducing the time available to capture the shadows. This is more visible on scenes with low light or high contrast.

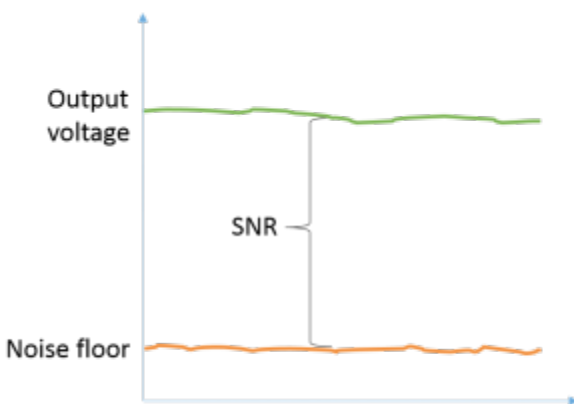
Because the capacity to store charge is directly related to the size of the photodiodes a larger one will have a better dynamic range. This is the main reason why full frame sensors have better noise performance than smaller sensors.

Tip: to reduce noise we should expose long enough without blowing up the highlights to allow for the pixels capturing shadows to receive as much light as possible. This technique is called Expose To The Right, or ETTR.

Signal to noise ratio

The concept of Dynamic Range is closely tied to the one of “Signal To Noise Ratio”, or SNR. And this one is tied to ISO settings. Understanding SNR will help us see why ISO has a direct relation with noise levels.

We talked before about photodiodes generating a voltage and that like all circuits we have a “floor” noise level. SNR is defined by the relation between the output voltage and this floor level. By comparing this voltage to the background noise of the circuit we find the Signal to Noise ratio. If you want to know the math behind this look at this Wikipedia article: https://en.wikipedia.org/wiki/Signal-to-noise_ratio



ISO

In modern digital cameras ISO controls the sensor’s sensitivity. This is done through the amplification stage within each pixel. Putting it in simple words, when we start increasing ISO what we are doing is basically turning up the “volume” of the sensor. The analogy of sound volume fits because what we are doing is increasing the gain, or increasing the level of the signal between input and output. This is known as amplification. The benefit of doing this is that a weak external signal gets amplified enough to make it usable. However, it will also increase the floor noise level.

And this happens because the relation of signal vs. the floor noise level remains the same. By amplifying the signal, we are increasing both signal and floor noise level. Making noise more visible.

The result is an image with significant more noise.

Conclusion

We talked about noise being present in every electrical circuit, that manufacturers have developed techniques to reduce it within the sensor. We also described the concept of dynamic range and how it directly affects the noise. That we should stay within this range to avoid blowing highlights or having too much noise in the darks. And finally explain why increasing ISO results in more noise.

The concepts explained here will help you understand why a technique like ETTR (expose to the right) helps reducing noise. But this is a topic for the next article

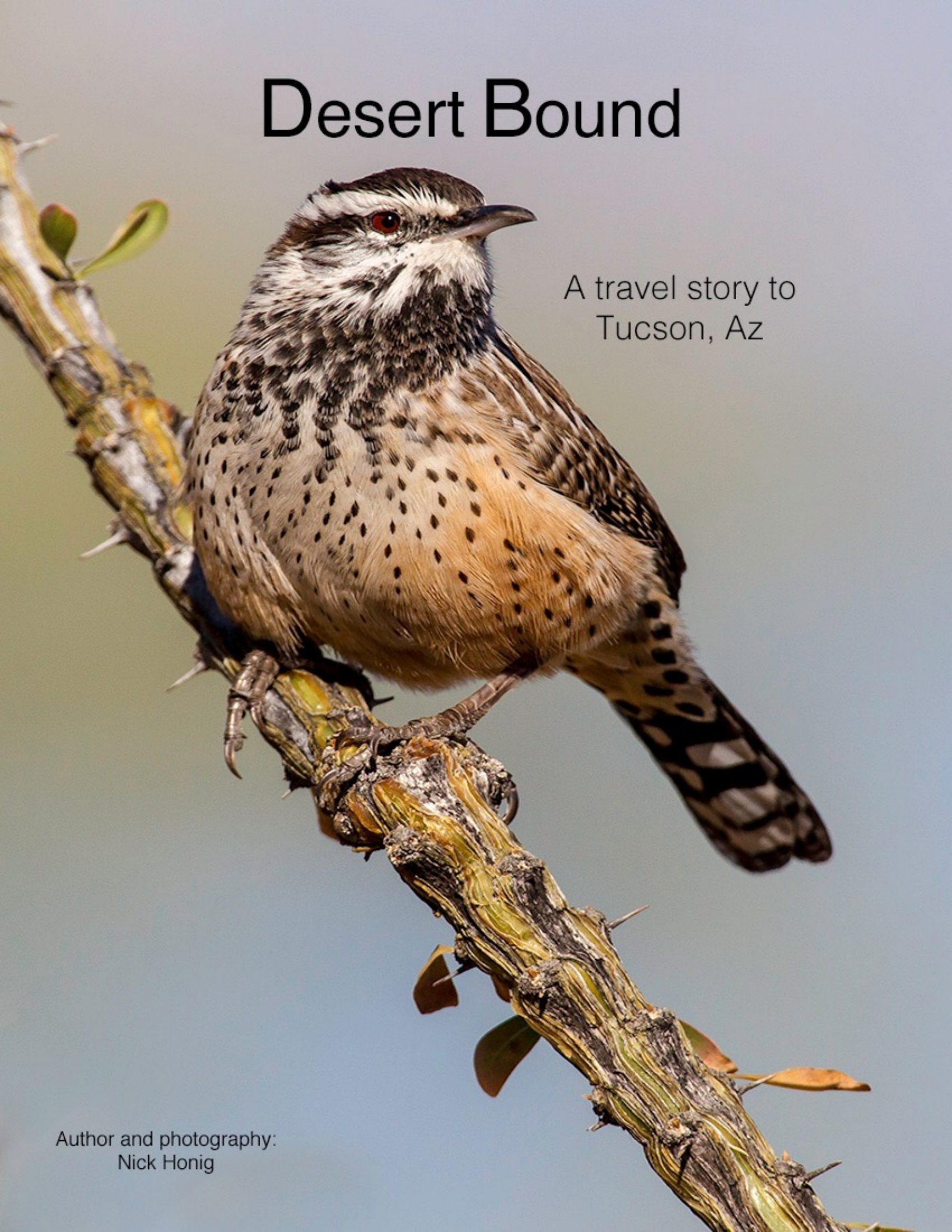
Questions? Mistakes? Please contact me at pedro@boismenu.com

This article first appeared in boismenu.com.

Desert Bound

A travel story to
Tucson, Az

Author and photography:
Nick Honig



Desert Bound

Getting There

It was a journey we had planned well in advance because my spouse Tuma Young had to finish his Doctoral course work at the University of Arizona in Tucson, AZ.



He had been allowed to take an educational leave from UCB where he teaches and so we organized living accommodations in Tucson for four months. For me it was an opportunity to once more experience the Desert albeit at a different time of year, summer and fall.

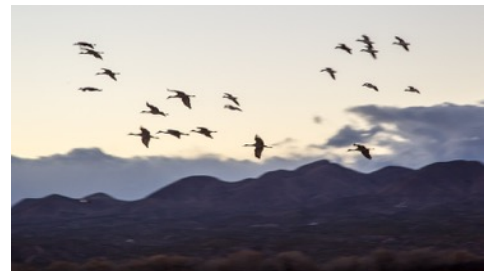
We decided to drive our new Rav4 and started our trip on August 17. I can say now that it is just a lot of driving with little time for sightseeing although on the way down we managed to do a little of that in St. Louis,

Missouri where we visited the famous Arch.



While Tuma wasn't so keen on riding in a very small cubicle to the top of the Arch and stayed below, I managed to get to the top and photographed the surrounding area from a height of 192 meters through tiny view windows.

On the way back from Tucson in December we did a little better with the touristy stuff and spent a few days at our favourite bird sanctuary, Bosque del Apache in New Mexico, which is a day's drive from Tucson. We arrived there on December 16, 2016 just before sunset in time to see the Sandhill Cranes and Snow Geese fly in to their roosting sites.



These birds arrive at Bosque in the fall from the northern parts of Canada and make their home there for the winter months.



We stayed at a hotel in Socoro, NM, which is a 30 minute drive away from Bosque and got back there in the morning before sunrise to witness thousands of Snow Geese and Sandhill Cranes take off from their roosting sites to forage in the nearby farm fields for their daily nutrition. All this, of course, is accomplished with a tremendous amount of cackling noise.



After we left Bosque we detoured slightly to see Big Bend National Park in Texas. It proved to be a worthwhile choice as the scenery is quite stunning. In fact I found the scenery to the park more stunning than in the park. We could only just drive through the Park as time did not allow for us to explore the various trails and hidden scenery. As you can see in the Park entrance picture we always travel with a companion stuffed bird.





After we left Big Bend we had no idea what was in store for us the next day on our way to San Antonio. As we were driving along the highway we heard this raissor sharp sound like an explosion above our heads. Neither one of us had any idea what was happening. Tuma,

who was driving, kept his nerves in check and stopped the car on the side of the road. When we looked up we could see the overcast sky through a huge gaping hole in the sunroof. The glass had blown out but the reason was not clear. We think it is related to a manufacturing fault and I am now happy to say that the manufacturer is paying us back for the cost of repair. That incident stranded us in San Antonio for three nights while the Dealership ordered parts to get it fixed.

There is always a silver lining to stormy clouds and this was no exception as we learned the history of the Alamo and spent time doing the "River Walk" in San Antonio.



Living in Tucson

After ten days of driving we finally arrived in Tucson and the furnished Condo we had rented for the duration of our stay was ready for us to move in. For the next four months we would be comfortable here and it was about a 30 minute drive away from the university.



We soon established a routine that included an early morning walk along



the very dry Rillito River before I drove Tuma to the university. Getting exercise in the early morning was the only time of day in August, September and October to avoid daytime temperatures which were in

the high 30's and sometimes 40's degrees centigrade. The first week at the university we went to the first football game of the season to see the Arizona Wildcats play. What can I say, one has to support the team. Had I know how hard those seats are I would have brought a cushion.



Even though Tuma was busy with his studies he managed to fit in birding adventures as well as visits to some of the spectacular scenic places in Arizona. The desert is and feels part of everyday life. It's a realization when you step out into the streets of Tucson because the desert plants are all around you. Cacti growing in the wild are a part of every garden and undeveloped land in the southern part of Arizona. These include the saguaro or giant cactus, the barrel cacti, the chollas, the organ pipe cacti,

the senita cacti, and the prickly pear cacti just to name a few. However I want to point out that although the cacti in Arizona form a substantial part of the plant landscape in the southern part of the State, many other species of plants are in abundance as well.



One of our favourite drives was the 25 mile trip up Mount Lemon in the Catalina Mountains on the East side of Tucson.



The top of Mount Lemon is 9000 feet above sea level and in summer Tucsonians go up there to find relief from the extreme heat and in winter they go there to ski. The journey



up provides many beautiful vistas and resembles the changing ecology if one were to travel from Arizona to the Canadian North. At the bottom of Mount lemon cacti are in abundance and in particular the Saguaro which at about the 4000



feet level abruptly disappears. The vegetation changes constantly as we make our way to the top where Pines and Oak grow. In winter the temperature could change from mid 20's degrees celsius in Tucson to below zero degrees celsius at the top.

We spent an equal amount of time in Tucson some 17 years ago and one of the attractions was the small town feeling of the city. This time that feeling was not there so much as a lot of development has taken place. Everybody is seeking the sun in the winter and so the desert has been transformed into houses and communities with the



consequential increase in traffic. However one thing they have managed to do is to keep the desert plants in the yards. Of course the Saguaro is protected by law and cannot be destroyed or cut down.

It is to be celebrated that Parks are protecting what is left of the desert and one such park on the West and East side of Tucson is the Saguaro National Park. The park allows for cars to drive through and admire the views and vegetation but it also provides many hiking trails for easy to difficult hikes. We didn't hike any of those trails this time but instead hiked in the Sabino Canyon which was practically at our doorstep. I often went there with camera in tow after I dropped Tuma off at the University.



My one desire was to get a decent pictures of the Greater Roadrunner and one day I was in luck.



I would often drive through the Saguaro National Park West to photograph birds or scenery but on one occasion Tuma and I were both exploring a route we had not taken before and found a tarantula crossing our path.

We stopped the car to take a closer look and managed to take some photographs. This is the



only Desert critter we saw during our entire stay. No scorpions or rattle snakes this time. However, I thought we had a scorpion in our Condo shortly after we had settled in and I admit that I was a wee bit nervous about that, until Tuma looked at it closely and said that is just a little gecko. Ok I said and bravely caught it and to put it outside.



It goes without saying that we look for birds to photograph wherever we travel. A very common bird in Arizona is the Phainopepla and the Cactus Wren which are shown here.

Although we made our own meals in our well provided kitchen, we also did our share of eating out. We had our favourite restaurants and one of them was Mexican cuisine at Guadalajara Original Grill. This restaurant we liked for a number of reasons; the superb table

side prepared salsa, the authentic atmosphere, and the delicious margarita for me and Tuma's favourite Horchata. For breakfast we enjoyed the Blue Willow restaurant which served a variety of American and Mexican style dishes. We discovered another small Indian restaurant 17 years ago just stuck in a corner of a strip mall which serves the most delicious authentic Indian food and is located close to the University. The food is always tasty and unfortunately we found out only a few



weeks before we were to leave that they serve a daily, all you can eat, lunch for nine dollars. But the restaurant where Tuma did a lot of his work if he didn't want to be at the university is Beyond Bread where the coffee is always hot and where they have probably fifty different sandwich choices.



Discovering Arizona

Back in September we were faced with a situation where our air conditioning unit in the condo broke down and would take up to a week to fix. As the temperature rose inside to 90 plus degrees F, we were put up in a hotel by our condo manager. As Tuma had some time to spare we decided to leave Tucson and head out to Phoenix, Sedona, Flagstaff and up to Page where we wanted to photograph in the Slot Canyons and get shots of Horseshoe Bend.

The latter is part of the Grand Canyon system where the Colorado River has carved out a ninety degree bend in the rock. We visited both places twice during our stay, the

second time we went with Pam Mills and Terry Boswell who came to visit us in Tucson for a week.



To get the most out of photographing the Slot Canyon we purchased a photo tour of the Lower Antelope Canyon, which assured us some ample time to get the images we wanted. The Slot Canyons are a series of

underground caverns that are open at the surface so that light comes in from the top. Certain times of the day are better than other times to get the best light shining onto the canyon sandstone rocks which have been carved out by

water and silt over millions of years. In the right light the rock formations seem to glow in differing colours from yellows to red. Our guide proved to be very helpful in handling other groups coming through not to walk through our pictures.



The second time with our visitors we chose a different Canyon called Antelope Canyon X. This turned out to be an excellent choice as there were few visitors at that time. We almost had the entire canyon to ourselves.



On that second trip Tuma remembered a place we had visited while on a workshop with



Friends of Arizona Highways some years ago. It's called Coal Canyon Mine and it was on the way back to Flagstaff that we stopped at this incredible place where one could easily spend a couple of days photographing the remnants of mining operation. As it was we only had a couple of hours.

Tuma and I never spent much time in Flagstaff which is best known for the

mountain peaks called the Humphreys Peak and the San Francisco Peaks. Driving back from Flagstaff to Sedona we drove up another mountain road to see what was at the top. As we drove up it became clear that this mountain was used a lot by the locals for camping and having fun but we did find a "lifer bird" up on that mountain. The Lewis' woodpecker was a nice find that we had not seen or photographed before.

The road from Flagstaff to Sedona is a beautiful winding and very scenic excursion which climaxes in Sedona with it's immensely spectacular red rock formations. I didn't get to take any photographs this time, but I include one from a previous visit.

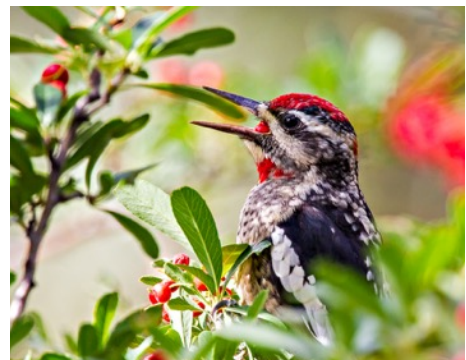


Although the city of Phoenix does not hold a lot of interest for us we love visiting the Gilbert Water Ranch, which attracts a variety of birds all year. For birders and bird

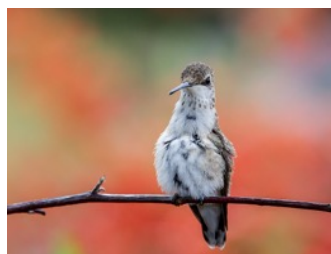
photographers it is a place where one can easily spent a whole day. On our two visits there I photographed various species of hummingbirds including the Anna's hummingbird. We have also photographed the Curved Bill Thrasher, the Mockingbird, the Green heron, and the Black-crowned night Heron to name just a few.



One of the birds on our list to photograph is the very illusive and beautiful Elegant Trogon which makes its home in various Canyons in Southern Arizona and Mexico. During the winter this bird lives mostly in Mexico but in the spring it returns to Arizona although not in any great numbers. The Madera Canyon is one place where it has been seen and so I alone and also with Tuma have made several trips to the Canyon which is about an our drive from Tucson in the hope to find it. As we arrived in late August the bird was probably just about packing its bags to leave for Mexico. So far we have not photographed it, although on a previous trip we have seen it briefly in a different Canyon associated with the Chiricahua Mountain range south east of Tucson near the Mexican border.



The Madera Canyon has been kind to us though and has produced plenty of photographic opportunities of other species of birds such as the Red-naped Woodpecker and the Acorn Woodpecker in addition to a variety of hummingbirds such as the Broad-billed, Magnificent, and Black-chinned hummingbirds



All of our outings in Arizona were interesting but the one that stands out the most is our visit to the riparian birding hotspot near the city of Sierra Vista south of Tucson near the Mexican Border. This area is known as the San Pedro Riparian



National Conservation Area and supports a habitat for some 80 species of mammals, fish and 40 species of amphibians and reptiles plus 100 species of breeding birds. There is a local non-profit organization called SABO which stands for Southeastern Arizona Bird Observatory and their objective is the preservation and protection of bird habitat. Cheri L. Williamson and her husband Tom Woods founded SABO and with the help from volunteers are doing a lot of good Naturalist work. Cheri is the author of the Peterson series of bird field guides, "A Field Guide to Hummingbirds of North America". The day we were there, SABO was doing one of their seasonal Hummingbird banding with Cheri directing and performing the banding. We were treated to a lesson in how you catch the bird in the first place and then the various stages to the actual banding from examining the bird, id, weighing and banding. While Cheri performed these tasks she explained everything to all those present. I managed to capture pictures of the



whole procedure. To catch the tiny birds they use a net around the hummingbird feeder. As the bird comes in to feed it triggers the net to drop down. Tom then retrieves the bird and puts it in a smaller net to take it to the table where Cheri and her volunteers are working. Below are some images of the process.



Finally the bird gets fed before one of the visitors is asked to release it.



The Journey Ends

There is always more things to do and experience than time allows and it is the same for us. We did not get to see the Grand Canyon this time and neither did we get to hike in the Chiricahua Monument. However we stopped in Hatch, in New Mexico which is famous for their chillies, and bought a few cans of the hot ones. We probably should have eaten a whole can to calm our nerves after the sunroof blew out. After that episode the journey went pretty smooth and we had no more time to stop and do more sight seeing.

At the border in Calais, NB we were greeted by the Border personnel who were obviously having a slow day and so took their time to examine our car and belongings. After we were given the green light we detoured to the Ganong chocolate store in Calais to get our favourite chicken bones and truffles for the rest of the journey home.